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*Jeanette Nikdavoodi*

# THE IMPACT OF ATTITUDE, SUBJECTIVE NORM, AND CONSUMER INNOVATIVENESS ON COSMETIC BUYING BEHAVIOR

*Evidence from women in Sweden*

International Marketing and Brand Management  
Supervisor: Kayhan Tajeddini  
Examiner: Ulf Elg

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# **THE IMPACT OF ATTITUDE, SUBJECTIVE NORM, AND CONSUMER INNOVATIVENESS, ON COSMETIC BUYING BEHAVIOR**

– Evidence from Women in Sweden

Academic thesis to be presented individually with the assent of the Department of Business Administration of the School of Economics and Management at Lund University for the degree of Master in International Marketing and Brand Management.

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## ABSTRACT

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<b>TITLE</b>	The Impact of Attitude, Subjective Norm, and Consumer Innovativeness on Cosmetic Buying Behavior – Evidence from women in Sweden.
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<b>KEYWORDS</b>	<i>consumer behavior; consumer innovativeness; cosmetics; purchase intention; theory of reasoned action (TRA)</i>
<b>THESIS PURPOSE</b>	Although the significance of investigating consumer's innovative propensities is recognized in fast pace innovative industries where customers' new product buying behavior is a crucial issue for implementing effective strategies, yet consumer innovativeness remains unclear in the cosmetic industry. The current research intends to fill this gap by examining the potential influences of consumer innovativeness in conjunction with attitude and subjective norm on new cosmetic purchasing intentions.
<b>METHODOLOGY</b>	The methodological ambition pursued is to bridge the explanatory research design with the epistemological position of positivism complied to fill this research gap. The deductive approach is used to develop six hypotheses driven from the extant literature review whereof thereby quantitative methods of data collection is acknowledged to test the hypotheses in the context of Swedish women.
<b>THEORETICAL PERSPECTIVE</b>	The main theories are based on previous literature of consumer behavior, provided that intentions to purchase new products are relevant to the context. The current study investigates consumer innovativeness in conjunction with attitude and perceptions of subjective norm mainly derived from the Theory of Reasoned Action (TRA). The nature of cosmetics is considered as well as the way the cultural discourse of new skincare and make-up cosmetic products is produced.
<b>EMPIRICAL DATA</b>	Data for this study were collected through questionnaire randomly gathered from 210 women in Sweden, of which allowed the research work 194 complete surveys. Different statistical methods have been employed to analyze the empirical data, including factor analysis for the reduction of variables, correlation analysis to examine the degree of influence and multiple regression to test the hypotheses. Furthermore, the various representations related to the hypothesized model are summarized through the Structural Equation Modeling. Finally, two research models concerning skincare and make-up cosmetics are developed.
<b>CONCLUSION:</b>	The findings support aspects of prior research, but also provide some new insights by exploring attitude, subjective norm and consumer innovativeness simultaneously, revealing whether and how these

factors influence cosmetic consumers' intentions to purchase new cosmetic products. Results revealed that both consumer innovativeness and attitude toward skincare cosmetics as well as make-up cosmetics affect positively on cosmetic purchasing intention. In addition, perceptions of subjective norm exerted a negative impact, as it appears to be of minor importance in explaining cosmetic consumers' intention to purchase new skincare and make-up cosmetic products. Although the findings reinforce the extent literature, it is important to bear in mind that the results of this study must be evaluated in light of the some limitations.

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# 1 SPOTLIGHT ON CONSUMER INNOVATIVENESS

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It should be no breaking news that the role of technology in the past years has allowed cosmetic companies to create a wide scheme of diversified product lines and collections explicitly aimed to target customers specific needs and wants (Weber & de Villebonne, 2002; Kumar, 2005; Kumar, Massie & Dumonceaux, 2006; Dodson, 2008; Liao, Hsieh & Huang, 2008; Euromonitor International, 2011c). New products are steadily emerging according as consumer's buying power is high (Kumar *et al.*, 2006; Jamal, Khan & Tsesmetzi, 2012). Consumers expect not only the product to go beyond its main function, but the greater demand for convenience of improved product performance has lead to the increased versatile of multifunctional attributes in new cosmetic products (Doyle, 2004; Kumar, 2005; Euromonitor International, 2011a). Although the intense growth is reaching an all-time high, the fast paced innovative industry is correspondingly very lucrative (Kumar, 2005; Souidan & Diagne, 2009; Zbib, Wooldridge, Ahmed & Benlian, 2010). During the past downturn in the global economy, emerging markets became the global drivers of the cosmetic industry recovery (Briney, 2005; Kumar, 2005; Dodson, 2008; Zbib *et al.*, 2010; Euromonitor International, 2011a). The increased focus toward growth and profits rather omitted maturing market demands (Kumar, 2005; Dodson, 2008; Euromonitor International, 2011a). This is furthermore clearly stated in the financial reports of various major players (i.e., Estée Lauder Annual Report, 2011; L'Oreal Annual Report, 2011). The cosmetic industry has been identified as one of the main high velocity industries (Nadkarni & Barr, 2008) as per the high numbers of new and innovative product launches but also due to the shorter spans of intervals between product introductions (Doyle, 2004; Kumar, 2005; Nadkarni & Barr, 2008). Yet the necessity marketing work is conditioned toward taking steps to process innovations (Steenkamp, Hofstede & Wedel, 1999). It is therefore of primary interest to marketing managers and theorists' alike to focus on consumers' specific buying behavior to successfully implementing new cosmetic product prospects (Kumar *et al.*, 2006).

The research on new product diffusion has, within the field of marketing, traditionally focused on the mass of consumers in terms of innovation as a general concept (Rogers, 1995). Based on a literature review of innovativeness in the cosmetic context, only a few scholars focused on innovativeness within different areas, including consumer innovativeness (e.g., Tellis, Yin & Bell, 2009) and brand innovativeness (Jamal *et al.*, 2012). To counteract these considerations, the reactionary mode to quickly respond to customers' new desires seems to be a fact in the cosmetic industry (Liao *et al.*, 2008), which, in turn, implies on the importance of understanding cosmetic consumers' different visionaries. Several scholars (e.g., Goldsmith, d'Hauteville & Flynn, 1998; Xie, 2008) have echoed Midgley (1977), who stated that the key to success of new products is to identify the potential first buyers in a specific product market. Innovative consumers play a central role in the success of a new product processes (Goldsmith & Flynn, 1992).

With respect to the cosmetic industry environment, Kumar and colleagues (2006) corroborate the focus of specific consumer segments in the mature market environment. The high unpredictability

in this industry (Nadkarni & Barr, 2008) seems to rather have intrigued researchers' interests, as it is, however, an unavoidable fact that most researchers have dealt with implementing effective marketing strategies (e.g., Kumar, 2005; Kumar *et al.*, 2006; Liao *et al.*, 2006; Amor & Guilbert, 2009; Kim & Chung, 2011), rather than focusing on consumers' specific behavior. Hence, to better devise marketing strategies and develop new cosmetic products, it is difficult to understand in depth without explaining why people accept or reject a certain behavior (Liao *et al.*, 2008; Kim & Chung, 2011). The complexity of consumer innovativeness is predominantly extracted from the notion that different consumers have different levels of willingness to try new products (Rogers, 1995; Bhatnagar, Misra & Rao, 2000; Im, Bayus & Mason, 2003). In fact, the consensus of innovativeness is derived out of explaining consumers' innovations – new products or technologies – adoption behavior, which comes from the way the product in question is conceived by the consumer (Ostlund, 1974; Roehrich, 2004). Consumers' innovative behavior is thereby significant to the individual preferred ways of using the abilities across different contexts (Goldsmith & Hofacker, 1991). To the best of our knowledge, it is surprising that none of the previous studies has motivated this specific cosmetic buying behavior by means of acknowledging consumer innovativeness in the cosmetic industry context. Both professionals and academics have intriguingly recognized the importance of identifying, profiling as well as influencing innovative consumers (Clark & Goldsmith, 2006). This study intends to fill this research gap.

The present research project argues for a scant framework development of the cosmetic buying behavior. Clearly, this study attempts to investigate cosmetic consumers' innovative predisposition in the cosmetic industry context. Based on the Theory of Reasoned Action, or the TRA, developed by Fishbein and Ajzen in 1975, provided that intentions to purchase new products are relevant to the context. The ambition draws on extending the scant empirical research as the study also re-examines two major determinants, on a well-established and predominant model to explain and predict consumer behavior (Sheppard, Hartwick & Warshaw, 1988; Lee, Qu & Kim, 2007). More specifically, this research considers *attitude*, perceptions of *subjective norm* and *consumer innovativeness*, as key antecedents in predicting and explaining cosmetic buying behavior. In other words, the objective of the current study is to examine the potential influences of consumer innovativeness in conjunction with attitude and subjective norm on new cosmetic purchasing intentions. This study attempts to contribute to the body of cosmetic buying behavior by acknowledging the fundamental question:

*What is the effect of the key antecedents on cosmetic buying behavior?*

This study posits that new products launched on the cosmetic market, makes it interestingly relevant to believe that cosmetic companies are empowered by cosmetic consumers' innovative predisposition. First and foremost, it is well understood that women are more innovative for cosmetics product than men (Goldsmith, Moore & Beaudoin, 1999a; Goldsmith, Kim, Flynn & Kim, 2005; Tellis *et al.*, 2009; Kim, di Benedetto & Lancioni, 2011). Based on the idea that innovative behavior is more significant on high technology products where radical innovations are perceived as very new to the

consumer (Crespo & Rodríguez, 2008), two main cosmetic product categories is relevant for this study. First and foremost, skincare cosmetic products contain the largest cosmetic category segment. In times to the aging population, anti-aging and slimming products maintain the future forecast with the highest growth rate (Yang & Chang, 2011). The market has witnessed a crossover boosting functional benefits toward scientific and technologically advanced formulations (Kumar *et al.*, 2006; Euromonitor International, 2011a). As per the high-tech developments to improve performance of the skin, consumers' seem to be prepared to invest more in skincare products (Weber & de Villebonne, 2002; Yang & Chang, 2011; Euromonitor International, 2011a). Due to how the make-up cosmetic category segment was the fastest growing cosmetic category segment in 2000 (see Weber & de Villebonne, 2002; Kumar, 2005), more recent numbers shows reveal a fairly constant decrease from 13 percent to a 2010 annual growth rate of three percent (Euromonitor International, 2011a), at the approximate 3:1 ratio. This product category is more endorsed with innovation due to how the make-up product life cycles are shorter, which, in turn, imply on a constantly revised product in order to fit trends (Kumar, 2005; Kumar *et al.*, 2006). A further point is according to how product categories fell in times to the recession, as previously mentioned, the skincare cosmetic category as well as the make-up cosmetic category were, in particular, shown to be less affected by consumer's change of spending (Kumar *et al.*, 2006). One idea is triggered by the facts that women are the prime targets of these, so called, visible products (Goldsmith, Flynn & Kim, 2010) by means of holding the highest market share of skincare and make-up cosmetic products, in particular (Louise, 2007). Fashion-conscious females that are appealed to beauty are more innovative in their behavior (Jordaan & Simpson, 2006), in which, would correspondingly motivate the purchasing behavior (Goldsmith *et al.*, 2010). Given the adequate opportunities and resources related to the cosmetic consumption, female cosmetic consumers in Sweden are categorically chosen by means of the market presence and market values associated with the high per capita cosmetic spending relevant for cosmetic consumers' future purchases of new products. These will be outlined in the next chapter.

The structure of the research project resides in the phenomenon of interest. By presenting the current status of cosmetics from the viewpoint of consumers as well as the market segmentation, including geographic zone and product category, the future potential of the cosmetic market lay the theoretical foundations for this research. The research task and its justifications present the practical relevance of the cosmetic buying behavior by purposively providing the framework with a hypothesized model. The research tradition of consumers buying behavior is examined through common ways of predicting and explaining consumer behavior consisting of major academic research discussions. Subsequently, the methodological decisions follow to direct the research process. After that, an examination of the empirical data is illustrated straight away, in which, further, raise the revision of the theory in a logical sequence. The final chapter outlines the conclusion, including implications and limitations as well as further researches are presented.

### 2.1 THEORETICAL POINT OF DEPARTURE AND EMPIRICAL EVIDENCE

This study resides in consumers buying behavior, defined as “the decision-making process and physical activity involved in acquiring, evaluating, using and disposing of good and services” (Junaid & Nasreen, 2012, p. 90). It is applied to comprehend the specific cosmetic buying behavior. What constitute to the body of research is the theoretical discussions of the predominant approach of consumer behavior, including, besides the actual adoption, learning, information-processing and decision-making activities (Constantindes, 2004). Based on this definition, adoption implies that the individual consumers have already accepted the new product and are also using it (Vrechopoulos, O’Keefe & Doukidis, 2002) whereas the indication of the individual consumers’ readiness toward the purchase is referred to intentions (Ajzen, 2002). In order to predict and explain the way the consumer approaches the specific purchase and consumption patterns (Sproles & Kendall, 1986), it is therefore necessary to understand specific mental characteristics in consumers’ mind related to the specific decision-making process. Because all marketing work is centered on assumptions about consumer behavior (Junaid & Nasreen, 2012), advantages of consumers purchasing intention is found to be an important variable as it affects the stages and process of consumer’ learning and purchasing in the marketplace (Xie, 2008). Within this broad area of inquiry, consumer behavior has within a variety of studies, applied purchase intention as the key dependent variable (Davis, Bagozzi & Warshaw, 1989; Venkatesh, Morris, Davis & Davis, 2003) when predicting the outcome of consumers’ reaction to new and innovative products (Ajzen, 1991; Legris, Ingham & Colletette, 2003; Constantindes, 2004). As echoed in previous research (e.g., Firat, Dholakia & Venkatesh, 1995), the consumption of products serves as a determinant in the construction of the individual self-image.

*The aim is now to outline the three key factors recognized as the antecedents of cosmetic buying behavior. The theoretical framework proposes Consumer Innovativeness in conjunction with Attitude and Subjective Norm, derived from the Theory of Reasoned Action, or the TRA.*

Innovativeness as a marketing concept has experienced a stream of definitions and research interests from information system (e.g., Agarwal & Prasad, 1998a), marketing (e.g., Hurley & Hult, 1998; Tajeddini & Trueman, 2008; Tajeddini, 2010) as well as in consumer research (e.g., Midgley & Dowling, 1978; Goldsmith & Hofacker, 1991; Hirunyawipada & Paswan, 2006). The extant literature on consumers’ intention to purchase new products has primarily focused on the transfer of consumer innovativeness, associated with the early purchase of a new product (cf. predisposition). And for numerous practical deficiencies (Hurt, Joseph & Cook, 1977; Midgley & Dowling, 1978; Hirschman, 1980; Agarwal & Prasad, 1998a) associated to the relevance in the process of new product adoption (Agarwal & Prasad, 1998a) and, also consumer behavior (Citrin *et al.*, 2000), innovativeness has received considerable attention in view of consumer’s personal characteristics. More recent scholars (e.g., Hirschman, 1980; Steenkamp *et al.*, 1999) prominence the tendency to be more attracted to

new product features. Consumer innovativeness is an approach that favors innovativeness implies the consumption of newness (Roehrich, 2004).

The consensus of innovativeness is derived out of explaining innovative behavior according as human behavior is influenced by the individual traits (Tellis *et al.*, 2009). Thus because the personal trait is rather stable over time (Tellis *et al.*, 2009), the acquired innovativeness is conceived differently with regards to how the new product is perceived by the consumer (Ostlund, 1974). Consumer innovativeness is therefore significant to the individual preferred ways of using the abilities across different contexts (Goldsmith & Hofacker, 1991). In addition, as echoed by previous academics (e.g., Midgley & Dowling, 1978; Goldsmith *et al.*, 1998), the construct of innovativeness has relevant meaning solely within the theoretical context of innovation composed from the specific product category. In this way, an individuals' actualized adoption behavior is a function of an individual's inherent innovative personality portraying consumer innovativeness. The explanatory power of the intervening behavior constructs of consumer innovativeness is gained through a multi-dimensional composite conceptualization (Midgley & Dowling, 1978; Tajeddini, 2010).

The Theory of Reasoned Action (see Ajzen & Fishbein, 1980; Fishbein, 1980; Fishbein & Ajzen, 1975 for more detailed descriptions) is a well-established theoretical framework, reasoned with areas of justification relevant for this research. To start with, the TRA has over the last three decades made major contributions (Lee *et al.*, 2007), with its two main key concepts. Evident in numerous theoretical backgrounds, the TRA is a profound model (Liska, 1984) mainly within the field of consumer behavior (Sheppard *et al.*, 1988). Sheppard and colleagues (1988, p. 325) noted, "the model appear to predict consumer intentions and behavior quite well, it also provides a relatively simple basis for identifying where and how to target consumers' behavioral change attempts". Plenty evidence supports the use of the TRA when predicting consumers' purchase intention within a number of different cultural setting, such as Swedish consumers (e.g., Hansen, Jensen & Solgaard, 2004). Also, specific consumer segment, including female consumers (e.g., Vincent, Peplau & Hill, 1998; Summers, Belleau & Xu, 2006), and more specifically, online travel shopping behavior (Njite & Parsa, 2004; Lee *et al.*, 2007), consumer's ethic food experiences (Zhang & Roseman, 2005), and young consumers' purchase intentions of fashion items (Belleau, Summers, Xu & Pinel, 2007).

According to Ajzen and Fishbein (1980), human behavior, (*B*) is determined by a person's intention to perform the behavior according as Behavioral Intentions (*BI*), which, in turn, is specified by two conceptually independent determinants of intention. The first predictor is a personal factor termed Attitude toward the behavior (*A*). It is a function of beliefs (*b<sub>i</sub>*) about performing the particular behavior and the evaluation (*e<sub>i</sub>*) of positive and negative accessible beliefs<sup>1</sup> and its implications about performing the target behavior (Ajzen & Fishbein, 1980; Davies *et al.*, 1989). This is illustrated symbolically as follows:  $AT = \sum b_i e_i$  (where, *b* represent belief strength and *e* evaluation of the

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<sup>1</sup> These beliefs are known as *salient beliefs* in the original theory (Fishbein, 1967; Fishbein & Ajzen, 1975) but are currently referred as *accessible beliefs* (see Higgings, 1996).

outcome, with  $i$  as individual's specific accessible belief). The second predictor of behavioral intention is, according to theory, a social factor. Subjective Norm toward the behavior ( $SN$ ) is a function of normative beliefs ( $nb_i$ ) associated with the expectations of the salient referent and the motivation to comply ( $mc_i$ ) with the given expectations (Ajzen, 1991; Lee *et al.*, 2007; Taylor & Todd, 1995). This is illustrated in the following equation formula as follows:  $SN = \sum nb_i mc_i$  (where,  $nb$  represents normative beliefs and  $mc$  motivation to comply with expectations with  $i$  as individual's specific normative belief). Consequently, according to the theory, attitude and subjective norm are both individually weighted for their relative importance and more importantly, considered jointly to determine behavioral intention (Davies, Foxall & Pallister, 2002). The TRA represents the integration process, as follows:

$$B = w_1 BI$$

$$BI = w_2 A + w_3 SN$$

where  $w_{1-3}$  represent the individuals' subjective weights.

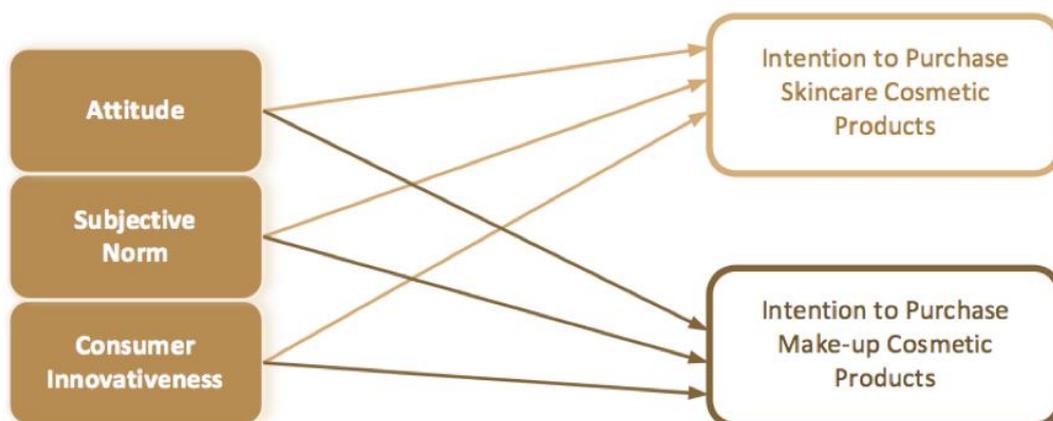
The theoretical utility of the model grounds consistently in matching the key antecedents of behavioral intention in the context of behavior related to a persons interest in terms of the specific behavior in question (Davies *et al.*, 2002). In this sense, it is worth mentioning that since behavioral intention in one context may vary in a different context, human behavior can only be predicted when the given behavior is under consciousness of effort (Lee *et al.*, 2007). That is, correspondingly identical and specific to each situation including the (1) *action* being performed, the (2) *target* at which the action is directed and, the (3) *context* in which the action occurs, as well as the (4) *time frame* of the performing action sightings obtained. With reference to the TRA, the critique of the theory according as the limitations of the applicability of intentions and behavior extended the literature to the Theory of Planned Behavior, or the TPB (see Ajzen, 1985; 1988; 1991; 1996 for more detailed descriptions). The underlying concept of the TRA is essentially that people evaluate potential consequences that may arise from their reasoned action before deciding to perform the behavior in question (Ajzen & Fishbein, 1980). Given the consumers' rational and relatively straight-forwarded behavior (Belleau *et al.*, 2009), intention summarizes an individual's motivation to perform a particular activity (Landgridge, Sheeran & Connolly, 2007). It is believed that consumers are more inclined to perform a particular behavior as they are favorable towards it as well as consumers more often feel pressured to act in a specific way according as other important people to them.

Numerous scholars within consumer behavior research (e.g., Sheppard *et al.*, 1988; Taylor & Todd, 1995; Davis *et al.*, 1995; Venkatesh & Davis, 2000; Venkatesh *et al.*, 2003) confirm the positive link between the actual behavior and intention. In order to provide a better understanding of the given behavior in question, theorist and researchers alike have suggested alternative external variables that might influence the specific behavioral intentions. Ajzen and Fishbein (1980) proposed demographic, traditional attitudes toward targets, and personality trait as external variables to predict behavior. As pointed out by Ajzen (2002) the TRA has proven to be successful in predicting and explaining consumer behavior within information technologies (IT). In particular, technology

acceptance models have proven to be important models within different areas of disciplines of consumer's acceptances and new technology diffusion processes (Ajzen & Fishbein, 1980; Davis, 1989; Rogers, 1995; Venkatesh, Morris, Davis & Davis, 2003), such as e-commerce acceptance (e.g., Pavlou & Flygeson, 2006; Crespo & Rodríguez, 2008) but also more specifically such as online travel shopping behavior (e.g., Lee et al., 2007), web survey participation (e.g., Fang *et al.*, 2009). Consistent with these researches is that, consumer innovativeness is the additional variable to better define the specific buying behavior. A further point denotes consumer innovativeness among other intervening variables (Midgley & Dowling, 1978). Consequently, consumer innovativeness in this research represents the latter mentioned additional external variable.

With reference to the TRA, Attitude toward the behavior refers to **the degree of which a person has a favorable or unfavorable evaluation of the particular behavior** and Subjective Norm toward the behavior refer to **a persons perceived social pressure to perform or not perform the particular behavior**. According to Im *et al.* (2003) consumer innovativeness is **“an individual’s inherent innovative personality, predisposition, and cognitive style toward innovations that can be applied to consumption domains across product classes”** (p. 65). Various studies (e.g., Midgley & Dowling, 1978; Foxall & Goldsmith, 1988; Im *et al.*, 2003; Bartels & Reinders, 2011) lend additional support by providing evidence in the positive relationship between consumer innovativeness and consumer new product adoption behavior. Whereof thereby, Goldsmith and Hofacker’s (1991) domain specific innovativeness enhance the actual new product adoption in Hirunyawipada and Paswan (2006) as a result of a consumers’ intention to purchase new products. Yet the explanation of consumers purchase intentions is the chief ingredient in the cosmetic buying behavior. The proposed framework of New Cosmetic Purchasing Intention is illustrated in Figure 2.1.

**Figure 2.1** The Proposed Framework of New Cosmetic Purchasing Intentions



## 2.2 REVIEW OF COSMETICS

Women are of course the prime targets of this industry. In fact, beauty products are described as a pervasive element of the feminine culture (Coulter, Price & Feick, 2003; Davies, 2006), whereby cosmetics are used for beautifying purposes (Kumar *et al.*, 2006). Beauty products are considered as 'personal products' (Liao *et al.*, 2008), and covers a wide range of product lines and collections, including cleansing body parts, enhancing features, changing skin tones and colors (Kumar *et al.*, 2006). Kim and Lee (2011) echoed the statement of Wendel and Kamakura (2000) as the specific market focus follows on account of its predominance in practice with respect to the specific consumer behavior.

In line with consumption-related behavior researches, it has been argued that the information decision-making processes are distinctive to the consumer behavior. Otherwise stated, the causal processes does not take into account the situational factors that may emphasis attitudinal personal behavior relationship or even enhance explanations of behavior (Davies *et al.*, 2002). The rather basic structure of the market may lack external validity due to "little practical relevance to real market situation" (Kim & Lee, 2011, p. 158). That is, beside gender differences (Souiden & Diagne, 2009), either way related to the special consumption of products (Coley & Burgess, 2003) or as elaborated from Hofstede (2001), dictated by cultural differences (Weber & de Villebonne, 2002; Souiden & Diagne, 2009). Based on these assumptions, it is therefore interestingly relevant to structure the worldwide cosmetic market by means of three different perspectives, in which, according to Wendel and Kamakura (2000, p. 26) stand for, "the most powerful algorithm for market segmentation" (See Kim & Lee, 2011, p. 157). Firstly, *cosmetics by consumers* follow to define the prime target of the industry. Secondly, *cosmetics by geographic zone* categorically narrow the worldwide cosmetic market into the research focus. Thirdly, *cosmetics by product category* incorporate the reason for preferring the particular cosmetic product categories, relevant for the research focus.

**by Consumers** Women use cosmetics for numerous reasons (Nash, Fieldman, Hussey, Lévêque & Pineau, 2006). Specifically, to audition various selves (Bloch & Richins, 1992; Beausoleil, 1994; Rudd, 1997; Thompson & Haytko, 1997; Peiss, 1998; Etcoff, 1999) as means of self-investigation (Nash *et al.*, 2006) in response to situational norms and self-presentational goals (Guthrie, Kim & Jung, 2008). Especially, Jung and Lennon (2003) corroborate, such appearance management behaviors involves the effort used to communicate one's style or aesthetic preference by means of how the physical appearance is considered more essential for women's evaluation of self and others. Beauty products are described as 'personal products' (Liao *et al.*, 2008), applied to enhance the outward appearance (Guthrie *et al.*, 2008). Closely related, Rudd and Lennon's (2000) definition of dress "the act of choosing how and with what items or processes to construct personal appearance" (p. 152). As echoed in several studies (e.g., Nash *et al.*, 2006; Guthrie *et al.*, 2008), Cash, Dawson, Davis and Bowen (1989) found that women use cosmetics to manage and control their self-image and also their



social impressions. Whether it is for *sexual attractiveness, social and professional interaction success, emotional pleasure* (Vanessa, Hartmann, Diehl & Terlutter, 2010), *better physical appearance, self-perception* (Nash *et al.*, 2006) or *symmetrical face* (Mulhern, Fieldman, Hussey, Lévêque & Pineau, 2003) it is predominantly used to influencing factors of perceptions, on a conscious and subconscious matter (Pooler, 2003).

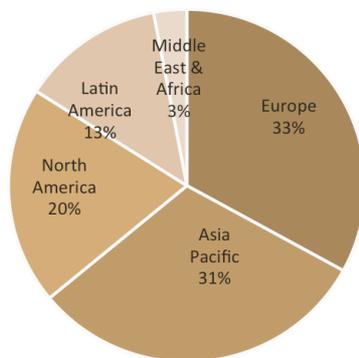
In this sense, the consumption of products serves as a determinant in the construction of the individual self-image (Firat, Dholakia & Venkatesh, 1995). Yet customers can simply adopt products as a part of the everyday life that the person constantly creates (Souiden & Diagne, 2009). With reference to Guthrie and her colleagues (2008), customer's personal relationship towards the given behavior is, beside internal factors such as values, morals and attitudes, partly determined by external factors such as the particular environment, products and advertising. The subsequent section defines the cosmetic research focus by the geographic zone.

**by Geographic Zone** The sales amount of total cosmetic industry in the European market – with sales close to the United States (US) and Japan combined – is estimated at €71,2 billion which represent roughly one-third of the total cosmetic market in 2011 (Cosmetics Europe, 2012). Although these three regions are described as maturing, the European market is as opposed to the others, still growing in terms of market value. In terms of individual market performance, the US is the largest market (Kumar, 2005; Cosmetics Europe, 2012) and nonetheless, US as well as Japan experienced decline during the global recession (Euromonitor International, 2009). Likewise, France is the biggest exporter of the world (Kumar, 2005; Cosmetics Europe, 2012), whereby China, Brazil and India became the global key drivers of the cosmetic industry growth (Euromonitor International, 2009; Cosmetics Europe, 2012). On the other hand, due to their enormous region sizes, buoyed by strong growth were also seen in Eastern Europe (Weber & de Villebonne, 2002; Euromonitor International, 2009; 2011a), especially, in Poland. In fact, the European market experienced a high level of growth of new and innovative cosmetic products. 10 percent of all patents granted in 2009 in Europe, specifically involved new European cosmetic products (Cosmetics Europe, 2012). The overall European cosmetic market showed contract according as the market size of the Western European market.

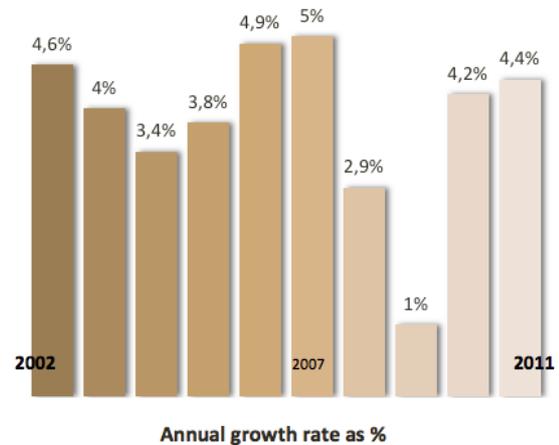
For the five largest countries – Russia, Canada, the US, China, Brazil – together accounts for three quarters of the overall Western European cosmetic market, thereby further demonstrating the importance. The European market accounts for, not only the largest worldwide cosmetic market to display almost a stand-still performance (Euromonitor International, 2011a; Cosmetics Europe, 2012), accordingly because most market growth is driven by the Eastern European countries.

Figure 2.2 presents the worldwide cosmetic industry by geographic zone in terms of 2011 market share and Figure 2.3 illustrates the market growth by means of the annual growth rate as percentage (%) from 2002 to 2011. (Source: L'Oréal Annual Report, 2011).

**Figure 2.2** Worldwide Cosmetic Market by Geographic Zone



**Figure 2.3** Worldwide Cosmetic Market Growth by Geographic Zone



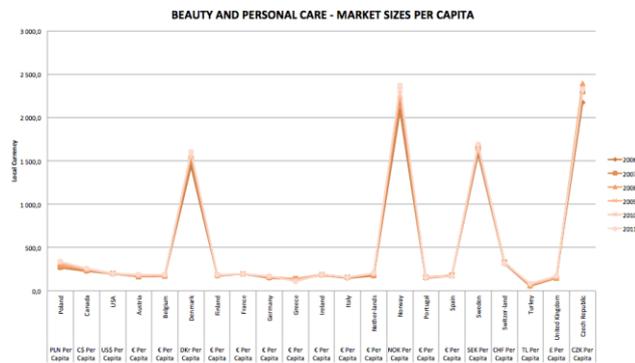
The European market is characterized as the major region of the worldwide cosmetic market, divided by Western Europe (24%) and Eastern Europe (9%), as a 4:1 ratio. To further elaborate, according to the website, Cosmetics Europe (2012), France is known as the world's top cosmetic product exporter with L'Oréal as the largest brand within personal care and cosmetics of the world. This region accounts for 35 percentages of the 2010 total European cosmetic exports. By viewing the financial review (L'Oréal Annual Report 2011), the company had 613 patents registered in 2011 and, is ranked as the top 100 most innovative companies in the world. Further on, Germany is the second largest cosmetic market, followed then by Italy, the United Kingdom (UK) and Spain, in which, make up to the top five market of the European market. These five major markets accounts for almost 78 percentages, most likely due to the region size or explicitly because of their population. The summation of the top 10, including Poland, Belgium/Luxembourg, Netherlands, Ireland and Sweden account for about 95 percent of the 2010 European exports.

The European market is closely followed by the Asian Pacific, with 40 percent of the total cosmetic sales held by Japan (Euromonitor International, 2009), accounting for almost half (12,4%) of the Western European market. As per the North American market breakdown, the cosmetic market share has in the past few years mostly been driven by Canadian consumers (Euromonitor International, 2009) whereas, the overall market share decreased in accordance to the overwhelming brunt of the previous economic downturn viewed in the chart. This was, however, also evident in Japan where the Japanese consumers' reduced their consumption of more expensive cosmetic products during the stagnating period (Euromonitor International, 2009; 2011a). On the other hand, in 2008, the Western European market display the highest market expenditure by means of the per capita cosmetic spending (Euromonitor International, 2009).

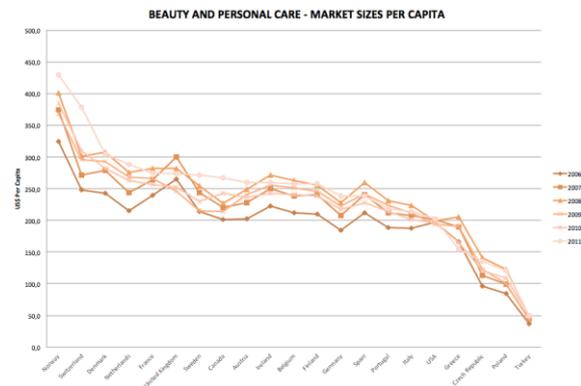
Based on the GMID Passport of Euromonitor International, the global beauty and personal care market sizes by means of the average per capita spending of some major regions are outlined in the next two figured presented below. Figure 2.4 shows the average per capita spending in the local currencies and the subsequent Figure 2.5 illustrates the average per capita spending in a fixed

exchange rate (Source: Euromonitor International, 2012a). Data was exported on 27/07/2012, 07:00 as demonstrated in Appendix 1.

**Figure 2.4** Cosmetic Market Sizes in Local Currencies



**Figure 2.5** Cosmetic Market Sizes in US\$ Fixed Exchange Rate



As the cosmetic market is strongly conditioned by the European market, both in terms of market size and market growth, the figures above are noteworthy. The initial figure shows four regions, in particular, significantly accounts for the highest average per capita spending measured in the local currencies. More specifically, Norway, Sweden and Denmark, as well as the Czech Republic are characterized by individual local currencies, for example, as opposed to Netherlands using Euro (€). The effect of measuring the market sizes in a common currency (US\$), illustrated in the next figure, shows that the Scandinavian countries are yet among the top contributors. Norway, Denmark and Sweden performed not only a strong growth in contrast to the total sales in Europe by means of the high per capita consumption of cosmetic products. Apart from the top two markets among the 21 selected regions of the 2011, the US\$ per capita spending for the following countries up to top ten are quiet similar.

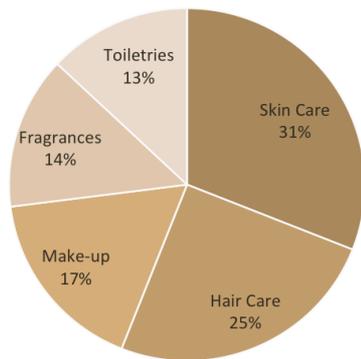
Summing up, when studying cosmetics by the geographic zone by means of predicting its potential to succeed among the presented situational factors. The worldwide cosmetic market values and presence are posed to define the research focus. The practical research gap this project attempts to fill is to be found in this area of research interest, that is, the Western European cosmetic market. Given the adequate opportunities and resources related to the cosmetic buying behavior, Sweden is chosen by means of the geographic zone through the per capita cosmetic spending relevant for cosmetic consumers’ future purchases of new products. It is important to bear in mind that Sweden is among one of the biggest countries in Europe and, on the other hand, inhabit one of the smallest populations. In addition, Tellis and colleagues (2009) corroborate “small countries stand out as being highly innovative overall and in specific categories, such as Sweden (...)”. As for this, it is of primary interest to elaborate of the different products relevant to further develop the emerging research interest.

**by Product Category** With respect to the market interest, cosmetic products are defined according to the national approach, and may vary from one part of the world to another. Based on the geographic zone of interest, cosmetics products are outlined by the Cosmetics Directive (see European Parliament and Council Regulation 76/768/EEC on the Approximation of the Laws of the Member States relating to Cosmetic Products). According to the regulations, cosmetics products function as cleaning, perfuming, changing the appearance, correcting body odors, protecting, and keeping in good conditions. As for this, cosmetic product's covers a wide variety of different categories, and should further be elaborated.

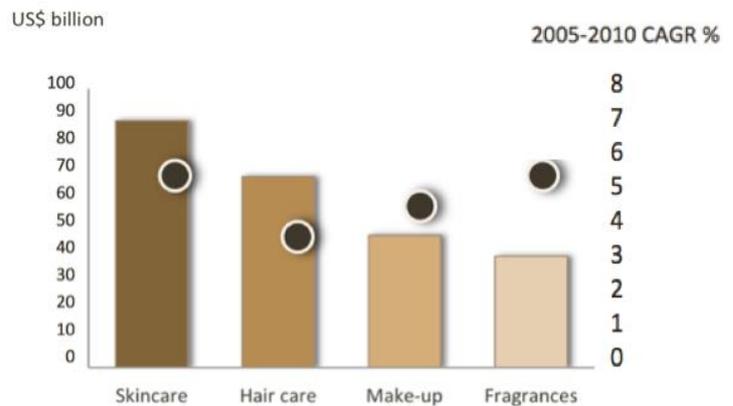
Based on Kumar's (2005) analysis of the global cosmetic industry, the classification of the industry product covers the total market size based on the 2001 market structure, in which, originally was developed from Lepir (2002a). The industry product classification is noteworthy in that it has been used in other scholars (see Liao *et al.*, 2008; Jamal *et al.*, 2012) and also in different market reports, including Euromonitor International, Datamonitor but also in financial reviews of some major cosmetic brands. As well as some of these industry products have been further developed and advanced into sub-segments. Kumar (2005) used the 2001 global market size for various product families of some major regions to classify the main categories of the cosmetic industry products into five leading segments, referred to the Cosmetic, Toiletry and Fragrance. In this way, cosmetics include skincare products, hair care products, and make-up products (also defined as decorative or color cosmetics, thus hereinafter, referred to make-up cosmetics) by means of beauty products and thus, followed by, fragrances and toiletries. Lepir (2002a) also separated the two latter from the three first products segments, in which, Kumar (2005) based his research on the US cosmetic product regulations. Thus, several scholars (e.g., Zbib *et al.*, 2010) include fragrances as beauty products, whereas more recent numbers sought to clarify cosmetics by the product category. As it would be more appropriate to further narrow the research focus.

Figure 2.6 presents the worldwide cosmetic industry by product category in terms of 2011 global market share (Source: L'Oréal Annual Report, 2011), and Figure 2.7 illustrates the market growth by means of the market value in 2010 as well as the compound annual growth rate (CAGR) from 2005 to 2010 (Source: Euromonitor International, 2011a). Bear in mind, the 2005-2010 CAGR in percent is based on approximate numbers. With reference to Euromonitor International (2011a) and L'Oréal (Annual Report, 2011), the largest cosmetic segment is represented by skincare products (31%) and then followed by, hair care products (25%), make-up products (17%) and fragrances (14%). Figure 2.7 exclude toiletries since it involves other than beauty products, such as rather necessity driven categories in terms of oral care, bath and shower, baby care, sun care and deodorants (Euromonitor International, 2011a). Which is, precisely opposed to the research focus. Likewise, the latter figure exclude men's grooming products.

**Figure 2.6** Worldwide Cosmetic Market by Product Category



**Figure 2.7** Worldwide Cosmetic Market Growth by Product Category



To start with, the skincare segment has for years been the main leading cosmetic category (see Kumar, 2005; Euromonitor International, 2009). Whilst the global growth slowed from 2007 (7.1%) and 2008 (5.5%) (Euromonitor International, 2009) to the 2010 annual growth (CAGR  $\approx$  5.25%-5.50%) (Euromonitor International, 2011a), forecast maintains its highest growth of all categories (Yang & Chang, 2011). As opposed to fastest growing segment in 2000 held by the make-up cosmetic category as previously noted (see Weber & de Villebonne, 2002; Kumar, 2005; Euromonitor International, 2009), the make-up cosmetic segment is the third largest category (Euromonitor International, 2009; 2011a). Until 2010, annual growth is slightly above five percent (CAGR  $\approx$  5.00%-5.25%) and as demonstrated in Euromonitor International (2011a), forecast to maintain solid growth in the future.

The status of these two categories together accounting for half (48%) of the total worldwide cosmetic industry seem to be more endorsed with constant innovation according as consumer's buying power. The skincare cosmetic category is intensely developed to target particular market segments (Kumar *et al.*, 2006) and improve the performance of the skin (Doyle, 2004; Kumar, 2005; Euromonitor International, 2011a) whereas, make-up products appear to have shorter lifecycles due to the fast pace changing needs of market demands (Kumar, 2005; Kumar *et al.*, 2006). To further direct the essential point for this research problem, a report by Louise (2007) in Euromonitor International found that skincare and make-up products, in particular, have the highest market share by female consumers, respectively, 93 and 86 percent. As the incentivize purchase seem to be highly dependent on product features, skincare and make-up is considered relevant for this research. Likewise, consumers are considered to be highly involved with cosmetics that have direct contact with the skin (Yang & Chang, 2011), which is, especially the case for these particular category products.

Summing up, the investigation of the specific cosmetic buying behavior is based on motivating consumers' new product purchase, which is, exactly, the case of skincare and make-up cosmetics. As these high-tech developments improve performance and are appearing at both the upper and lower

end of the price range, the functionality between skincare and make-up products are witnessing a crossover in boosting functional benefits toward scientific and technologically advanced formulations. As opposed to hair care products that are associated with personal commodities to ensure health whereas women, in particular, tend to consider personal hygiene care far from products aimed to improve the physical appearance (Lambert-Pandraud & Laurent, 2010). In addition, Lambert-Pandraud and Laurent (2010) argue that fragrances may be connected to emotional and symbolically products, as the consumer behavior would be more allied to a category-identity purchase. Therefore, hair care products and fragrances are both subjects to foreclosing procedures of investigating female cosmetic consumers. Conclusively, the categorically research focus within the field of cosmetic product categories lies on skincare cosmetics, with the main focus on facial skincare, henceforward, referred to skincare cosmetics, as well as on all sub-segments within the make-up cosmetic category.

**by Skincare Consumption** Women's face care products are facial cleanser, including facial soaps, and facial moisturizers, masks, facial exfoliators, toners/clarifiers, make-up removals, age specialists, lip products, eye products, acne treatment, oil/shine control. Important trends on technology and innovations have set the pace in today's skincare cosmetic market. Two major trends recognized especially in this market. Firstly, toward highly technological formulations to improve the performance of the skin, in an attempt to address consumers' different skin care needs at various stages throughout life (e.g., Doyle, 2004; Kumar, 2005; Kumar *et al.*, 2006; Euromonitor International, 2009). The second trend is scientific beauty set to thrive well-being and healthy lifestyles (e.g., Doyle, 2004; Euromonitor International, 2009; 2011a).

Since the prices of quality products are not as low as general commodities it is important to bear in mind that consumers are prepared to invest more in facial skincare products than in body skincare, according to another report by Euromonitor International (2011d). This might be due to how the face is the most highly examined part of the body for signs of ageing or likewise, because of the highly increased niche products, since "nobody want to get a double whammy in health and monetary loss" (Yang & Chang, 2011, p. 13). Based on this notion, this study implies to further distinguishing facial skincare (e.g., acne treatments, face masks, facial cleanses, facial moisturizers, lip care, anti-agers, toners) from hand care and body care (e.g., firming/anti-cellulite body care, general purpose body care), which is the main three sub-segments of the skincare cosmetic category (see Euromonitor International, 2011d; Racher Press, 2012). To counteract this consideration, Euromonitor International (2007) found that facial skincare (73%) cosmetics account for the highest proportion of spending within the skincare category whereas, body care (25%) and hand care (3%) could be allied to mass-purchases, which, in turn, is associated with less loyalty purchases.

As stated by Kumar (2005), in the early 1990s, skincare manufacturers increased product caters of market segmentation. Whilst, major brands such as Garnier and Nivea was targeting teenagers, the market has in recent times been joined by new and smaller product lines. For instance, the Grace Your Face product range of teenagers' skin, including the Pre Date Brightening Mask, Green

Tea Eye Pads, Tinted Anti Blemish Moisturizer, Extreme Lip Volumizer and Spot Reducer Gel Patches. Likewise, in times to how anti-ageing benefits are becoming more and more relevant, skincare manufacturers respond to the demand by launching new products with a series of product lines and collections, especially developed to the facial skin of women in a specific age ranges. The Ageless Results line by the Avon brand includes a day cream, an eye cream and an overnight cream, for instance. Although niche products will continue to drive up market values, the presence of private label has become more and more prominent in the past few years (Dodson, 2008; Euromonitor International, 2009). For instance, natural cosmetics such as mineral nutrients to provide the skin more enhanced benefits aside from chemical-free formulations, was first launched by major brands. Nowadays natural ingredients are more established within a variety of different cosmetic products such as natural sunscreen or long lasting coverage skincare products (Dodson, 2008). More specifically, the LL Regeneration Series from Annemarie Börlind is a natural cosmetics range including cleansing milk, facial toner and likewise a day and a night cream, especially for women over their -30s years. Yet major brands such as the Lancôme brand by L'Oréal, will continue to span purchasing decisions by means of the wide product collection especially developed for women in their 20s, 30s, 40s, 50s and even above their 60s.

According to the Euromonitor International (2011e), the skincare cosmetic market size in Sweden illustrates the maturing market to display a stagnant constant value. Facial skincare products represents the largest category of the total skincare cosmetic segment and, premium general purpose body care records the fastest growth in 2010. The increased demand for more effective products and specialized product formulations will continue to drive sales to the development of improved products range of the skincare performance needs. Although the lingering weakness and uncertainty in the economic climate, the demand of premium-priced organic products remains very popular, with the trend of increasing unit price levels across the overriding majority. This could indicate consumer's tendency of a relatively low price-sensitivity for product offering uniqueness, as well as the perceived high quality. Inasmuch as product innovation and new launches remains important drivers for the immediate future of the skincare market, Swedish consumers apparent purchasing power seem to drive up market values.

The top skincare market category player in Sweden, namely, Beiersdorf AB with its key brand, Nivea, accounts one forth of the total market value. Then, followed by, L'Oréal AB (14%), Cederroth AB (7%) and Johnson & Johnson Consumer Nordic (5%), together accounting for half of the total 2010 skincare market sales in Sweden. Another report by Datamonitor (2004) pointed out that, moisturizers almost accounts for half of the total facial skincare market value in Sweden. To further elaborate, Euromonitor International (2011e) shows that the Nivea Visage brand by Beiersdorf AB recorded a value of almost 15 percentages of the total market share and, thus being the only brand above five percent of the market share of 2008 to 2010. With regard to facial skincare cosmetic brand, Nivea Visage accounts for 20 percent of the total facial market sales as per the reviewed years whereas the second player does not reach to half of Beiersdorf AB's sales. The company launched

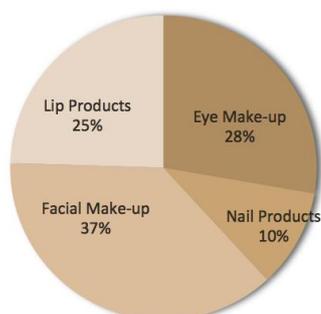
several new products on the Swedish market, namely, Nivea Visage Anti-Wrinkle Q10 Plus Tinted Day Cream SPF 15, Nivea Angel Star Body Lotion, Nivea Angel Star Lip Balm SPF 10 and Nivea Visage Natural Beauty Beautifying Daily Peeling.

In contrast to how the global sales of facial skincare product are underpinned by consumers' image perceptions of the category, as a result of global brands (Euromonitor International, 2007), Euromonitor International (2011e) believe that the facial skincare market in Sweden is driven by strong key driver of innovation. In correspondence to Guthrie and her colleagues (2008), Euromonitor International (2010) found that the demand for skincare products have increased according as the ageing baby boomers. Since these generations nowadays have purchasing power (Parment, 2008) it is believed that they will continue to seek anti-aging products (Guthrie *et al.*, 2008). In line with consumer behavior in Sweden, growth of the aging of population as per the middle-aged and older population nowadays has an apparent purchasing power (Euromonitor International, 2010). Consumers' facial product purchases seem to benefit the skincare cosmetic market according as women seem to be less inclined to let nature take its toll.

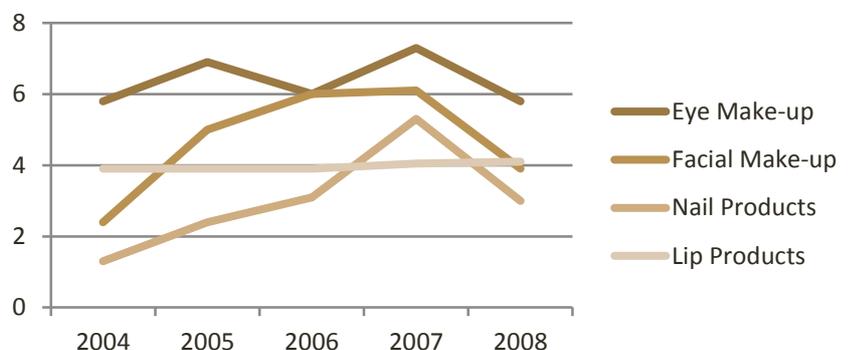
**by Make-up Consumption** A further point to Kumar's (2005) cosmetic product classification scheme is the main sub-segment within the make-up category consists of *facial make-up* (e.g., blusher/bronzer/highlighter, foundation, concealer, powder), *lip products* (e.g., lip color, gloss, lip liner/pencil, lip stick), *eye make-up* (e.g., eye liner/pencil, eye shadow, mascara, brow) and *nail products* (e.g., color enamel, base coats/top coats, nail treatments/strengtheners, nail polish remover). Since the development of new make-up products have extremely strong connection to specific fashion trends (Kumar, 2005), the essential prospect development are more frequent as the lifecycle spans of products are constantly becoming more shorten (Kumar, 2005; Kumar *et al.*, 2006).

In order to elaborate on the importance of the make-up segment, more recent numbers of the market size as well as the growth rates of the involved sub-segments are presented in Figure 2.8 (Source: Euromonitor International, 2011a) and 2.9. (Source: Euromonitor International, 2009).

**Figure 2.8** Make-up Cosmetic Category 2010 Value Breakdowns



**Figure 2.9** Make-up Cosmetic Category Growth Rates of 2004-2008 Product Sales





According to Euromonitor International (2011a), facial make-up (37%) is the largest sub-segment in the category of make-up cosmetics, with products such as foundations and concealers as major component of the market prospect. The multiple functionality in facial make-up products are, for instance, natural products, anti-ageing claims, sunscreens, or SPF, and emollients in order to improve performance of the skin (Kumar, 2005; Euromonitor International, 2011a). The fastest growing product area is nail products, in which, on the other hand, is the smallest sub-segment (10%) of the make-up category (Euromonitor International, 2011a). As opposed to its rather stable market growth, the past global economic downturn seems to have aided to sales retention. One reason for this could be explained by the fact that women rather opted professional treatments, which, in turn, would benefit the market growth of nail product sales. The past years product improvements could likewise be viewed in the increase of fast-dry nail enamels and also the trend of nail art that may have ensured continued global growth. In the segment of lip products, accounting for almost one-fourth of the make-up category, the market growth displays an unchanged market development (Euromonitor International, 2009). This further responds to how innovation and high levels of technological development would be likely to stimulate growth.

By viewing the segment of the eye make-up category, the market experienced several expansions. Most of the technological innovations in eye make-up products seem to have been successfully toward improved product features of mascara applications and performance. Premium players, such as Estée Lauder and Lancôme launched vibrating mascaras or bottom lash mascaras in order to extend eye lashes (see Estée Lauder Annual Report, 2011; L’Oreal Annual Report, 2011). Likewise, the Swedish based launch of neuLash and nouveauBrow, a successful eyelash growth-enhancing formula toward lash extensions was accompanied by higher prices. The development of such improved products aided to the market value growth, which lead to advanced growth strategies to include mass markets launches. The development of new mascaras by Maybelline as well as by different retail outlets was accompanied by lower prices to include mass mascara growth. In line with Maybelline New York’s new launch of “lower prices, fast paced and color drenched” (Stone, 2010, p. 10) make-up cosmetic collection aimed at a generation of younger female consumers between 15 and 25 years old in Europe. Likewise, the make-up market growth strategies of H&M and Cubus include a wide product line and collection with their private labels. As for this, it is reasonable to believe that the overall make-up cosmetic market growth could be accompanied by more customers but also by the younger segments, since they are the prime targets of the above mentioned, in particular.

According to Euromonitor International (2011e), the fashion of eye make-up in Sweden recorded the highest market value by means of the make-up cosmetic category. As opposed to the make-up market size, the difference rather display the importance of eye make-up in Sweden since it was ranked as the third largest sub-segment in the make-up segment. On the other hand, this further counteract above considerations by means of the 2010 increasing year-on-year retail value growth (3%) of make-up cosmetics. Although trade sources could be driving the results of the trend of fashionable make-up products, in which, has during the past years become a focal point of consumer

cosmetic buying behavior. Advances in mascara cosmetics have driven sales as well as the more frequent repeat purchases (Euromonitor International, 2011e), demonstrating not only its central element in most Swedish consumers make-up routines. The report also records the increasing unit price levels of make-up cosmetic products on the Swedish market. Thus women prove more willingness to pay for improved performance. Furthermore, the Swedish make-up cosmetic market size are dominated by a few players including the global leader L'Oréal AB accounting for a quarter of the total make-up market value, and then followed by Procter & Gamble Sweden AB (19%), Invima AB (12%), Beiersdorf AB (6%), Clinique Laboratories Inc. (5%) and the rest sharing a value of 35.1 percentage.

According to Euromonitor International (2011c), girls' appearance has less to do with their self-esteem and the larger societal issues, but rather to "look to their parents and siblings to see what they are using to help decide what to buy and use" (Alexander, 2010, p. 130). To counteract above considerations, the use of make-up is expressed as a learned process that changes during a woman's lifetime (Fabricant & Gould, 1993). Similarly, the increase of women's fashion magazines and fashion weblog has resulted in Swedes interest in fashion and personal grooming products have grown to become more widespread facilitated by the increased disposable incomes. The report 'Consumer Lifestyle in Sweden' by Euromonitor International (2010), did not only reveal that this has lead to an increased sale of make-up cosmetic as such fashion-related products has become an important expectation. The importance of keeping up with friends seems to dictate the cosmetic consumption, especially for Swedish teenage girls, as they seem to wear make-up from a young age. Elaborated from a survey (Euromonitor International, 2010, n. pag.) "62% of 13 year-old girls already wear makeup every day" whereas, the greater independence in consumer decisions is not only a fact for the society but also for cosmetic companies. Both Estée Lauder (Annual Report, 2011) and L'Oreal (Annual Report, 2011) encourage young consumer decision-making processes to simplify interactions and customizations by means incorporating new digital tools such as m-commerce and mobile marketing (e.g., Clinique Forecast mobile app, My L'Oréal Mirror iPhone app).

### **2.3 THE ANTECEDENTS OF COSMETIC BUYING BEHAVIOR: HYPOTHESIS DEVELOPMENT**

Based on a review of relevant literature regarding the key antecedents of cosmetic buying, the framework support the development of theory-based hypotheses to serve as a guide for the hypothesized model of new cosmetic purchasing intentions. The aim is hereby to link the three proposed key antecedents of cosmetic buying behavior with cosmetic consumers' intention to purchase new cosmetic products.

## **Attitude**

Attitude toward the behavior represents a person's overall evaluative effect by means of favorable or unfavorable attitude toward undertaking the particular behavior (Ajzen & Fishbein, 1980). It can be interpreted as personal estimation about whether or not the product under consideration will possess the desired attribute. 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 (Verbecke & Vackier, 2005).

Applied to skincare products that function as a way to satisfy women's need for beauty and care of appearance (Todd, 2004; Kim & Chung, 2011). In line with the desire of improving appearance through skincare products (Marcoux, 2000), a strong relationship between attitude toward skincare cosmetics, in particular, with purchasing intention has been pointed out by both Kim and Chung (2011) and Sukato and Elsey (2009). The empirical evidence makes it reasonable to assume that if the female cosmetic consumer believes that the skincare cosmetic consumption would gain a positive outcome associated to the personal aspirations, the more likely would she be to have a favorable attitude toward skincare cosmetic products. Likewise, the development of new and innovative skincare product launches in Sweden follows as means of the increased demand of high-quality products, which, in turn support the notion of her positive intention to purchase new skincare cosmetic products. Thus, the following hypothesis proposed as follows:

**H1a** Attitude toward skincare cosmetics will promote cosmetic consumers' intention to purchase new skincare products.

As opposed to skincare products, consumers' make-up consumption does not contribute to the similar care of skin conditions. Similar to apparel, make-up cosmetics inscribe the attributes of the personality. Make-up cosmetic products play a significant role in increasing attractiveness as a result of enhancing facial symmetry (Mulhern *et al.*, 2003) by means of creating a uniform skin texture or cover imperfections and flaws (Nash *et al.*, 2006) but also in terms of changing color tones and shadings. Whilst it is applied onto the social body, it functions to complement the overall look (Guthrie *et al.*, 2008). Make-up products appear to have strong connections to specific fashion trends in terms of how the lifecycle spans of products are becoming extremely shortened (Kumar, 2005), in accordance to the constant development of new make-up products. Since it has been argued (e.g., Nash *et al.*, 2006) that women hold different attitude toward using make-up cosmetics, it is therefore reasonable to argue that if the female cosmetic consumer believes that the make-up cosmetic consumption would gain a positive outcome to her outward physical appearance. Likewise, the more likely would she be to have a favorable attitude toward make-up cosmetic products. The dichotomy may increase her intention to purchase new make-up cosmetic products. In accordance with these authors, the next hypothesis is formulated:

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

### **Subjective Norm**

Subjective norm represent a person's perceived social pressure by means of encouraging a potential perception toward undertaking the particular behavior (Ajzen & Fishbein, 1980). It can be interpreted as personal motivation to comply with the expectations of people important to the individual (Taylor & Todd, 1995) such as peers and superiors (Venkatesh, Morris & Ackerman, 2000). More specifically, if the consumer believes that referents consider a particular product as good, the more likely would he/she intend to purchase the product (Kim & Chung, 2011).

Normative pressures are more exposed from close friends and family (Ajzen, 2002) and as stated by Vanessa and colleagues (2010), physical appearance is conceived as desirable and admirable characteristics associated with friendship preferences, which, in turn, motivate the cosmetic behavior (Joy & Venkatesh, 1994; Etcoff, 1999; Perrett *et al.*, 1998). In fact, women are more judged and valued according to their aesthetic appearance (Nash *et al.*, 2006), whereas perceptions of subjective norm is considered powerful forces in women's decision-making process (Venkatesh *et al.*, 2000). It is reasonable to argue that there exists a positive correlation between subjective norms on behavioral intention in the context of cosmetic behavior. Subjective norm have significant influence on behavioral intention in the context of behavior related to skin management (Hillhouse *et al.*, 2000). With reference to skincare products, Souiden and Diagne (2009), Sukato and Elsey (2009) as well as Kim and Chung (2011) support the positive correlation between perceptions of subjective norm and behavioral intentions in the context of purchasing skincare product. On the basis of the specific evidence, the following hypothesis is enunciated:

**H2a** Perceptions of subjective norm toward skincare cosmetics will promote cosmetic consumers' intention to purchase new skincare products.

Make-up cosmetics, on the other hand, function to contribute to the social body in support of customers' to express their inner world (Lee & Kim, 2006). As suggested by Guthrie *et al.* (2008) and Vanessa *et al.* (2009), female consumers' may use social comparison processes to contribute to the features of attractiveness, other studies (e.g., Joy & Venkatesh, 1994; Etcoff, 1999; Perrett *et al.*, 1998) emphasize this as a way to further motivate consumer behaviors. The greater ability of cosmetic companies to operate more efficiently has lead to the greater innovation in product characteristics, whereby make-up cosmetic, in particular, tend to have shorter product lifecycles (Kumar *et al.*, 2006). It has been suggested that subjective norm would have significant influence on consumers' purchase intention, especially, in cases where fashion and trends are considered more relevant (Crespo & Rodríguez, 2008). Therefore, it would be appropriate to further give place to make-up cosmetic products in particular. According to the theoretical model and the empirical evidence pointed out, the relevant hypothesis is proposed:

**H2b** Perceptions of subjective norm toward make-up cosmetics will promote cosmetic consumers' intention to purchase new make-up products.

### ***Consumer Innovativeness***

Consumer Innovativeness represents a person's individual's inherent innovative personality, predisposition and cognitive style toward the new and innovative product (Im *et al.*, 2003). It can be interpreted as individuals' actualized adoption behavior whereof an individual's inherent innovative personality portraying consumer innovativeness. More specifically, the degree of innovativeness in the consumer behavior is therefore significant to the individual preferred ways of using the abilities across different contexts (Goldsmith & Hofacker, 1991).

The consensus of innovativeness is derived out of explaining innovative behavior according as human behavior is influenced by the individual traits, which in one hand is rather stable over time (Tellis *et al.*, 2009). Thus, innovativeness is indirectly influencing the consumer behavior. Based on a review of consumer innovativeness, three key tenets of personal trait dimensions of an innovative behavior are commonly recognized in the literature. Firstly, since different consumers have different levels of willingness to try new products (Rogers, 1995; Bhatnagar *et al.*, 2000; Im *et al.*, 2003), several researchers has agreed that innovative behavior is conceived as the willingness to change (e.g., Im *et al.*, 2003). Secondly, since innovativeness differs between different people depending on how the new product is perceived by the consumer (Ostlund, 1974; Roehrich, 2004), the individual preference for new and different experiences is portraying different innovative behavior (Hirschman, 1980). Thirdly, since some people are more inclined to embrace new products whereas others rather follow lead (Limayem, Khalifa & Frini, 2000; Lee *et al.*, 2007), an individual predisposition to buy new products is described as an innovative behavior (Midgley & Dowling 1978; Hirschman, 1980; Steenkamp *et al.*, 1999). Various studies (e.g., Midgley & Dowling, 1978; Foxall & Goldsmith, 1988; Im *et al.*, 2003; Bartels & Reinders, 2011) lend additional support by providing evidence in the positive relationship between consumer innovativeness and consumer new product adoption behavior.

With sublimity to consumer innovativeness in the cosmetic context, Tellis and his colleagues (2009) as well as Kim and his colleagues (2011) verifies that women tend to be more innovative toward purchasing new cosmetic products, in contrast to male consumers. This is, however, also, suggested by previous studies (e.g., Goldsmith *et al.*, 1999a; 2005; Kim *et al.*, 2010). Several studies (e.g., Beausoleil, 1994; Bloch & Richins, 1992; Etcoff, 1999; Peiss, 1998) support that cosmetics are viewed as the ubiquitous element of women's consumer behavior. Women turn to cosmetics and beauty treatments to improve self-image and personal appearance. Closely related, female innovators appear to be more fashion-conscious as well as they seem to be more sensitive to beauty and appearance (Jordaan & Simpson, 2006). Likewise, clothes are used as a code (Auty & Elliott, 1998) whereby fashion clothing represents individuals' consumption decision according to the consumer behavior (Cardoso, Costa & Novais, 2010). The possessions of products, in which, define the individual consumer, has also been recognized in the context of fashion (O'Cass, 2001; Cardoso *et al.*, 2010). Though the same could be said about cosmetic consumer's innovative behavior, since, especially, innovators have considerable higher levels of self-confidence about their personal appearance (Limayem *et al.*, 2000).

With respect to the domain specific focus on consumer innovativeness (cf. Tellis *et al.*, 2009), the literature on fashion innovators has widely been recognized (e.g., Goldsmith & Newell, 1997; Goldsmith, Moore & Beaudoin, 1999b; Bhatnagar *et al.*, 2000; Kwak, Fox & Zinkham, 2002; Goldsmith *et al.*, 2005; Beaudoin & Lachance, 2006; Jordaan & Simpson, 2006; Belleau *et al.*, 2007; Hsu & Chang, 2008). Fashion innovativeness has been positively correlated to a diversity of different concepts such as risk averse (Bhatnagar *et al.*, 2000; Kwak *et al.*, 2002; Jordaan & Simpson, 2006), uncertainty (Bhatnagar *et al.*, 2000; Kwak *et al.*, 2002), more knowable about new products (Limayemet *et al.*, 2000; Jordaan & Simpson, 2006), higher opinion leadership scores (Jordaan & Simpson, 2006), price insensitive (Goldsmith & Newell, 1997; Goldsmith *et al.*, 2005) and can also be more influenced by brands in their decisions (Beaudoin & Lachance, 2006; Hsu & Chang, 2008). Along recessions, people were found to be less eager to spend money on cosmetic products (Kumar *et al.*, 2006), as per the various cosmetic categories that dropped. On the other hand, the more involved product categories such as skincare and make-up products in which have the highest market share by female consumers (Louise, 2007), were shown to be less affected by consumer's change of spending (Kumar *et al.*, 2006). In contrast to how Kim, di Benedetto and Lancioni (2011) elaborated the statement of Jung and Kim (2005), that consumers are equally concerned about and influenced by price, regardless of the degree of consumer's innovativeness, several other researchers (e.g., Goldsmith *et al.*, 1999b; Jordaan & Simpson, 2006) argues that innovators spend more on fashion products.

The importance of identifying cosmetic innovators would be similar to what has been argued about fashion innovators and as stated by Jordaan and Simpson (2006) innovators important revenues recognized to support the development and launch of new products. The main consideration is due to the increased cosmetic consumers' buying power (Kumar *et al.*, 2006; Jamal *et al.*, 2012). Furthermore, in a recent study, Jamal *et al.* (2012) highlight the importance of cosmetic brand innovativeness in women's decision-making process. Based on the UK female cosmetic market, the research demonstrated that brands have considerable influences, especially when it comes to evaluating new cosmetic products. Despite the theoretical differences, the general concept of innovativeness explicitly remarks raise the role of consumer innovativeness in the context of cosmetics.

Apparent in the women's skincare cosmetic consumption, products are applied to benefit the personal aspiration. The current development of specialized product formulations is nowadays associated with timing and frequency of evaluating such benefits as the quality of the product, discovering product features as well as to learn how to apply them are more appreciated (Hirunyawipada & Paswan, 2006). As innovative consumers tend to seek out new experiences (Hirschman, 1980; Roehrich, 2004), one could argue for how cosmetic consumers would be more likely to express appearance through groundbreaking technologies in new and innovative products. The empirical evidence obtained by these authors justifies the following propounded hypothesis:

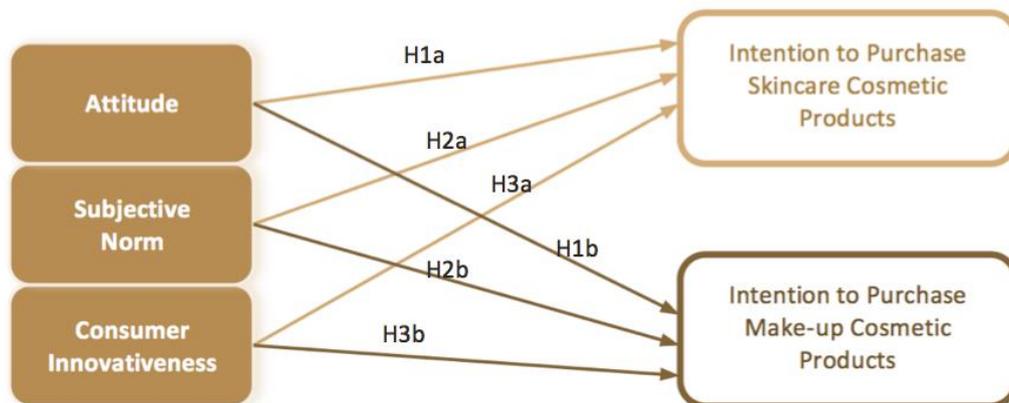
**H3a** Consumer innovativeness will promote cosmetic consumers' intention to purchase new skincare cosmetic products.

Make-up products are considered to be more than only the opportunity to use the product itself. The consumption of make-up cosmetic products presents a must for cosmetic consumers to test and analyze the quality of cosmetics. Likewise, as brought up before, make-up products have released more often as a result of its faster product cycles (Kumar, 2005), which makes it more relevant to believe that the consumer would look for new ways to be innovative (Hirunyawipada & Paswan, 2006). Though consumer innovativeness seems to be more appropriate in a context where product incorporate radical innovations (Crespo & Rodríguez, 2008), it would be more than relevant to assume that the higher level of consumer innovativeness leads to purchasing more new make-up cosmetic products. From the indicated arguments, the following hypothesis is enunciated:

**H3b** Consumer innovativeness will promote cosmetic consumers' intention to purchase new make-up cosmetic products.

Summing up, the hypothesized model, presented in Figure 2.10, could be viewed as an academic contribution according to the development of theory-based hypotheses concerning the proposed key antecedents' effects on the cosmetic buying behavior. From a theoretical point of view, it refers to cosmetic consumers' intentions to purchase new skincare and make-up cosmetic products. From a practical standpoint, it is believed that cosmetic companies are interested in the influence of consumers' intention to purchase new product. In this way, reasonable assumption are believed to be more profound in that the current study support developing the existing body of research by means of applying consumer innovativeness in conjunction with attitude and subjective norm in the cosmetic context. The research design and methodology used to meet the research objective is reviewed in the following chapter.

**Figure 2.10** The Hypothesized Model of New Cosmetic Purchasing Intentions



### 3.1 METHODOLOGICAL AMBITION

The objective of this research, to examine the potential influences of consumer innovativeness in conjunction with attitude and subjective norm on new cosmetic purchasing intentions, is approached by the epistemological position of positivism. Based on a literature review, this research recognizes attitude subjective norm and consumer innovativeness as the most significant and important drivers of the cosmetic buying behavior. In this sense, the phenomenon being studied is independent from the observer as well as from human perceptions (Easterby-Smith, Thorpe & Jackson, 2008; Bryman & Bell, 2011), in a way that is value-free (Bryman & Bell, 2011). The ontological assumption of this study presents a specific version of reality that is external and objective (Easterby-Smith *et al.*, 2008). The essence of the empirical nature follows the notion to test the hypotheses whereof thereby allows explanations of laws to be assessed (Bryman & Bell, 2011). As was previously mentioned, the constructs of attitude and subjective norm from the TRA has for decades proven to be successful in predicting and explaining not only, consumer behavior (Sheppard *et al.*, 1998) but also, in accord to technology acceptance models (Ajzen, 2002). In particular, technology acceptance models have proven to be important models within different areas of disciplines of consumer's acceptances and new technology diffusion processes (Ajzen & Fishbein, 1980; Davis, 1989; Rogers, 1995; Venkatesh, Morris, Davis & Davis, 2003), such as e-commerce acceptance (e.g., Pavlou & Flygeson, 2006; Crespo & Rodríguez, 2008) but also more specifically such as online travel shopping behavior (e.g., Lee *et al.*, 2007), web survey participation (e.g., Fang *et al.*, 2009), for instance. Yet the explanation of behavioral intention is the chief ingredient in the cosmetic buying behavior by means of moving from a general approach to a more specific by means of generalizing findings. Therefore, this research has an explanatory research design for the purpose to answer the research question by investigating whether and how the key antecedents influence the cosmetic buying behavior. Explanatory research design aim to develop precise theories to explain the phenomena, which, in turn, leads to generalizing findings (Saunders *et al.*, 2007). Likewise, the possibility to discover and acquire knowledge and insights makes it more meaningful to generate findings that are representative for the whole population.

In order to empirically test the six proposed hypotheses based on the hypothesized model of the Cosmetic Buying Behavior, questionnaire is aimed to determine cosmetic consumers intention to purchase new skincare and new make-up cosmetic products. The initial reason is according to the data analysis that can be tested through various statistical techniques as well as it allows the large experiment to collect data drawn from a substantial population, which is considered rather relevant for this research. Besides the predominance of quantitative research methods, within business disciplines, it allows to obtain valuations for psychological variables (Churchill & Iacobucci, 2005). This methodology makes it possible to investigate a series of multi attributes scales without the direct observation or even indirect quantifications. Thus, it allows the researchers to focus on vital skills in



terms emphasizing hypotheses development as well as to properly address these problems. In its place, the necessity to emphasize an eminent questionnaire design as well as the sampling procedure because the more reliable and valid the data is obtained the more representative is the observation is a must. Most importantly, it permits the researcher with more control of the research process and as pointed out by Saunders and colleagues (2007), whereas the ambition of deduction emphasizes a more suitable approach to quantitative research methods. The developed survey structure as well as the research design and field of study are explained in detail in the subsequent sections.

### 3.2 QUESTIONNAIRE STRUCTURE AND MEASUREMENT SCALES

The main survey is divided into four sections consisting of eight demographic questions in the first and the last sections as well as two middle sections, including 10 statements each related to a specific action associated with the hypothesized paths, as per the product in question. The respondent were asked to rate the extent to which she believe she personally agree with the action is known as a Likert scale (see Likert, 1931), anchored by 1 to 5, in which 1 indicates total disagreement for the shown statements and five total agreements to evaluate, ranging from 1 (*Strongly Disagree*) – 2 (*Disagree*) – 3 (*Neutral*) – 4 (*Agree*) – 5 (*Strongly Agree*). The respondent was given explicit instructions in terms of the conditions of the magnitude estimation on the sample statements in support of Cross, in 1982. Previous scholars (e.g., Sturges, 1990, p. 422-423; Kim & Lee, 2011, p. 160) have repeated Cross (1982) argument “the opportunity to condition thinking to proportional judgments help eliminate the tendency for subjects to consciously or unconsciously revert to categorical judgment”. It is therefore necessary to define the construct measurement items more specifically, each unit of selected items must represent relevant aspects of the concept in order to ensure the content validity and furthermore draw relevant generalizations (Tung *et al.*, 2008). The questionnaire administered is outlined in Appendix 2.

In the first part, four questions including her *duration of usage*, *products of usage* a day, *purchase frequency* and her *average cosmetic spending* per month was used to address her cosmetic consumption. It is important to bear in mind that cosmetic in this research involves skincare cosmetic products (\*) as well as make-up cosmetic products (\*\*). In the survey, a footnote illustrating these stars as:

- Skincare Cosmetic Products (\*): *facial moisturizers (day creams, night creams, eye creams), nourishes/anti-agers, skin-whitening products, treatment series, anti-blackhead creams, face masks, facial cleansers (liquid/cream/gel/bar cleansers and facial cleansing wipes), toners/ exfoliation, lip care.*
- Make-up Cosmetic Products (\*\*): *foundations, concealers, blusher/bronzer, highlighter, powder, mascara, eye shadow, eye liners/pencils, eye make-up removers, lipstick, lip gloss, lip liners/pencils, nail varnishes, nail treatments/strengtheners, removers.*

**(1)** The first question asked “How long have you been using cosmetics for (referring to skincare and make-up cosmetics\*\*)?” with eleven categories presented in a five-year increments, starting with 1 = “Less than 5 years”, 2 = “5 but less than 10 years”, 3 = “10 but less than 15 years”, 4 = “15 but less than 20 years”, 5 = “20 but less than 25 years” 6 = “25 but less than 30 years”, 7 = “30 but less than 35 years”, 8 = “35 but less than 40 years”, 9 = “40 but less than 45 years”, 10 = “45 but less than 50 years”, and 11 = “50 years of more”. **(2)** The following question expressed as “How many cosmetic products (referring to skincare and make-up cosmetics\*\*) do you use a day?” with six categories: 1 = “Less than 4 products”, 2 = “4 but less than 8 products”, 3 = “8 but less than 12 products”, 4 = “12 but less than 16 products”, 5 = “16 but less than 20 products” and 6 = “More than 20 products” aimed to address her overall cosmetic consumption. **(3)** The cosmetic purchase frequency was recorded as “How often do you buy cosmetics (referring to skincare and make-up cosmetics\*\*)?” with six categories ranging from: 1 = “more than once a month”, 2 = “about once a month”, 3= “about once every three months”, 4 = “about once every six years”, 5 = “about once a year” as well as a 6 = “anytime”-alternative. **(4)** Lastly, a single open-ended question required a general judgment of her monthly average cosmetic spending “On average, how much do you tend to spend on cosmetics (referring to skincare and make-up cosmetics\*\*) a month?” in which the question was aimed to address her monthly cosmetic spending in accordance to other similar studies (e.g., Goldsmith *et al.*, 1999b). The participant was asked to respond in own words (SEK/kr month). In one hand, this is the only single open-ended subject in which supports the notion of a rather casual consideration whereas the respondent was guided by a fixed set of questions in all other subjects known as closed-ended questions (Schiffman & Kanuk, 2007). To eliminate bias according as the unexplored area, the open-ended question was used to explore new ideas in terms of how the respondent is not foisted to answer in the same way as anyone else in an attempt to find unusual respondents (Bryman & Bell, 2011).

Furthermore, in the forth part of the survey, four questions concerning her *age*, highest *education*, *marital status* and her current *place of residence* were used to address her personal demographic data. **(7)** As for her age, seven categories divided into ten-year increments from 15 to 65. Her answerers was recorded as: 1 = “below 15 years old”, 2 = “15 but less than 25”, 3 = “25 but less than 35”, 4 = “35 but less than 45”, 5 = “45 but less than 55”, 6 = “55 but less than 65” and “Over 65 years”. **(8)** Education was documented as an ordinal variable in three categories starting from: 1 = “Less than Upper secondary school”<sup>2</sup>, 2 = “Upper secondary school education or equivalent”, and 3 = “University or above”. **(9)** Marital status was measured with six categories, such as: 1 = “Single”, 2 = “Partner (but living separately)”, 3 = “Partner (cohabiting)”, 4 = “Married”, 5 = “Divorced or Separated”, and 6 = “Widow”. **(10)** The current place of residence was measured in four categories: 1 = “Metropolitan areas (Stockholm, Göteborg and Malmö)”, 2 = “Urban areas (other than the 3 largest cities above)”, 3 = “Rural” as well as an additional category referring to 4 = “Other”.

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<sup>2</sup> In the Swedish education system, Gymnasieutbildning stands for an Upper Secondary School education or equivalent

All measurement were drawn from previous research and aligned with the conceptual aspect of each construct regarding, attitude, subjective norm and consumer innovativeness in which embodies the six hypotheses for this research is presented in Table 3.1 below representing measurement items for skincare and Table 3.2 with similar items for make-up cosmetics. Appendix 2 gives detailed guidelines for sources for each item.

To measure **Attitude**, the scale of Todd and Taylor (1995) was adopted because of its emphasis on an individual' values about performing the target behavior. Attitude involves bicentric entities in terms of favorable or unfavorable evaluation or appraisals (Ajzen, 1991) such as like-dislike, good-bad et cetera (see Fishbein & Ajzen, 1975). This scale, using four items (AT1, AT2, AT3, AT4) has previously been confirmed as consistent in various different studies (e.g., Lee *et al.*, 2007; Crespo & Rodríguez, 2008; Fang *et al.*, 2008), including cosmetic research (e.g., Kim & Chung, 2011). To evaluate **Subjective Norm**, the subsequent scale proposed by Todd and Taylor (1995) was also extracted in this research (cf. Kim and Chung, 2011). Subjective norm denotes the extent to which an individual perceives that others important to her believe she should perform the target behavior. Since two items (SN1, SN2) was developed from proposal in studies with similar settings associated regarding new technologies (e.g., Venkatesh & Davis, 2000; Venkatesh *et al.*, 2003) and therefore also used for this context.

**Table 3.1** The Measurement of Research Variables for Skincare Cosmetics

Theoretical construct	Question Items	References
<b>Attitude</b>	<b>A1</b> Using skincare products is a good idea.	Taylor & Todd, 1995 Venkatesh <i>et al.</i> 2003
	<b>A2</b> Using skincare products is a wise idea.	
	<b>A3</b> I like the idea of using skincare products.	
	<b>A4</b> To me, skincare products are pleasurable.	
<b>Subjective Norm</b>	<b>SN1</b> People who are important to me would think that I should use skincare products.	Taylor & Todd 1995 Venkatesh <i>et al.</i> 2003
	<b>SN2</b> People who influence my behavior would think that I should use skincare products.	
<b>Consumer Innovativeness</b>	<b>CI1</b> Generally, I spend little time exploring how to use new skincare products.	Agarwal & Prasad, 1998a Agarwal & Prasad, 1998b
	<b>CI2</b> In general, I am hesitant to try out new skincare products.	
	<b>CI3</b> Among my peers, I am usually the first to try out new skincare products.	
	<b>CI4</b> I like to experiment with new skincare products.	
<b>Purchasing Intention</b>	<b>INT1</b> I intend to buy new skincare products in the future.	Agarwal & Prasad, 1998b Taylor & Todd 1995 Venkatesh & Davis, 2000 Venkatesh <i>et al.</i> 2003

The scale used to measure **Consumer Innovativeness** was quantified with different measures of new technologies including experimenting, willingness and speed of adoption found in Goldsmith and Hofacker (1991), as it features the innovative behavior. Three items (CI2, CI3, CI4) were assessed from Agarwal and Prasad (1998a) because of its emphasis on personal innovativeness. Of these three items, one (CI2) is propositioned as a reverse scale measurement (see Agarwal & Prasad 1998a). Yet, since their study of innovativeness in the domain of information technology did not consider innovative consumer behavior, all items were therefore not included for this experiment. As more is learned about the consumer innovativeness of this domain specific innovativeness and theoretically-oriented research (Goldsmith & Hofacker, 1991), innovative behavior of the cosmetic consumers' of this research may incorporate findings from other relevant product fields into the general body of consumer innovativeness (see Goldsmith *et al.*, 1999a). Strength of evaluating study participants' innovative behavior was, on this basis, extracted from Agarwal and Prasad (1998b) as one item (CI1) incorporates "specific knowledge that is personalized for individuals" (p. 20). Roehrich (2004) further elaborated on the statement by Baumgartner and Steenkamp (1996), "consumers who are high on EAP [exploratory acquisition of products] enjoy taking chances in buying unfamiliar products, are willing to try out new and innovative products, value variety in making product choices, and change their purchase behavior in an effort to attain stimulating consumption experiences". This notion recalls for a favorable attitude toward the new product simultaneously (Agarwal & Prasad, 1998b) in terms of personal outcomes of the consumer innovativeness toward the purchase intention. All items for consumer innovativeness have previously been used in other researches (e.g., Fang *et al.*, 2008).

**Table 3.2** The Measurement of Research Variables for Make-up Cosmetics

Theoretical construct	Question Items	References
<b>Attitude</b>	<b>A1</b> Using make-up products is a good idea.	Taylor & Todd, 1995 Venkatesh <i>et al.</i> 2003
	<b>A2</b> Using make-up products is a wise idea.	
	<b>A3</b> I like the idea of using make-up products.	
	<b>A4</b> To me, make-up products are pleasurable.	
<b>Subjective Norm</b>	<b>SN1</b> People who are important to me would think that I should use make-up products.	Taylor & Todd 1995 Venkatesh <i>et al.</i> 2003
	<b>SN2</b> People who influence my behavior would think that I should use make-up products.	
<b>Consumer Innovativeness</b>	<b>CI1</b> Generally, I spend little time exploring how to use new make-up products.	Agarwal & Prasad, 1998a Agarwal & Prasad, 1998b
	<b>CI2</b> In general, I am hesitant to try out new make-up products.	
	<b>CI3</b> Among my peers, I am usually the first to try out new make-up products.	
	<b>CI4</b> I like to experiment with new make-up products.	
<b>Purchasing Intention</b>	<b>INT1</b> I intend to buy new make-up products in the future.	Agarwal & Prasad, 1998b Taylor & Todd 1995 Venkatesh & Davis, 2000 Venkatesh <i>et al.</i> 2003

Finally, as for the dependent construct, **Purchasing Intention**, two scale items are added to the construct. Based on the notion that consumers purchase intention is designated as a strong antecedent of future buying behavior (Lee *et al.*, 2007; Shim, Eastlick, Lotz & Warrington, 2001), the importance lay on identifying the key item in order to capture the most relevant aspect amid a broad set of items. As demonstrated in the tables above, one scale item (INT1) is extracted from Agarwal and Prasad (1998b) and Taylor and Todd (1995), Venkatesh and Davis (2000) as well as Venkatesh *et al.* (2003) by means of a subjective measure. From this point of view, some researchers (e.g., Taylor & Todd, 1995; Chau, 1996) prefer subjective measures whereas some other considers the use of objective measures (e.g., Szajna, 1996). By adding an additional item to the dependent variable (INT2), the inclusion of psychometric properties such as their monthly spending (See Question 4 in Part I) is considered more explicit. Likewise, self-reported spending has previously been used in fashion innovativeness studies (e.g., Goldsmith *et al.*, 1999a). Elaborated on the argument of Nagy (2002) and Wanous and colleagues (1997), Wang, Dou and Zhou (2006) corroborate that single-items appear to have acceptable face validity and could therefore judge favorably against multiple-item measures.

The process of collecting data follows most empirical methodological literature designates to thoroughly pre-test the questionnaire prior the final survey (Hunt *et al.*, 1982). In this way, the questionnaire items were pre-tested conducted in two different ways. Firstly, the questionnaire was developed and pilot tested on a convenience sample of seven female participants in which stimulated the quality of the questions referring to the items and appearance. In the second phase, a convenience sample was made similar to the final sample in order to further encouraged the quantity of the data by improving and modifying before the actual use for data collection. For example, the experiment of asking female cosmetic consumers' to evaluate their perceptions of attitude, subjective norm, consumer innovativeness and intention was changed from the original seven-point Likert scale to a five-point Likert scale anchored by 1 to 5, with a similar middle point. Likewise, although it would be more appropriate to include an additional item to the purchasing intentions scale (cf. Taylor & Todd, 1995; Agarwal & Prasad, 1998a; 1998b; Venkatesh & Davis, 2000; Kim & Chung, 2011), it was believed that somewhat similar items (i.e., "I plan to purchase new products in the future" "I expect to purchase new products in the future" "I predict I would use x in the future" "I would use x in the future") would create an obscure and nevertheless a considerable burden to the key dimension of measuring the dependent variable. On this basis, multi-item measurement of the single dependent variable would reduce the quality of the responses and nonetheless the study group experiment may add rather little information (Drolet & Morrison, 2001). Therefore, a modification was considered prior the final data collection. The final survey took place during two weeks in 2012 between July 21<sup>st</sup> and August 4<sup>th</sup>. To properly fill out all 38 statements took anywhere between seven and ten minutes in total.

### 3.3 SURVEY SAMPLE DEVELOPMENT

The data collection is made by means of female cosmetic consumers aimed at women on the Swedish market with interest in purchasing new cosmetic products in the future. In this sense, it is worth mentioning that the cosmetic consumer of the experiment is associated with a “real world” behavior, in which emphasizes random selections as opposed to the need of subjective judgment (Saunders *et al.*, 2003). Likewise, because the representative sample is considered “every complete collection or research units or objects that collectively from your research domain” (van der Velde *et al.*, 2003, p. 59), the sampling technique cannot possibly state the entire probability. Therefore, the sampling procedure follows a non-probabilistic design, since “the likelihood of each population entity being included in the sample cannot be known”(Easterby-Smith *et al.*, 2008, p. 330). To eliminate same-source bias and add to the value to the current research, study participants were selected based to validate the research target. As was mentioned previously, face validity aim to further narrows the research target to a rather reliable gathering (Singh, 2007) by means of an “essentially intuitive process” (Bryman & Bell, 2011, p. 160). Therefore, cosmetic consumers as the key informants seem to be more familiar about the research topic of cosmetic use (Singh, 2007; Ghauri & Gronhaug, 2010). According to Ridings and her colleagues (2002), this is a way to further ensure the external validity by matching the known population with the demographics of the sample. The demographic characteristics are treated necessary to track the idea of this particular sampling of “a representative subgroup of the population” (van der Velde *et al.*, 2003, p. 59).

Around 400 women were invited to participate in the survey of *Cosmetic Buying Behavior of female consumers in Sweden*, with their interest in purchasing new cosmetic products in the future, representing the general demographic profile of cosmetic consumers for this research. The survey was carried out through two different survey types in order to restrict demographical limitations. The questionnaire was initially executed through SurveyMonkey, a web-based online survey in order to gain advantages such as lower costs, faster responses and geographically unrestricted sample (Ridings, Gefen & Arinze, 2002). Next, a paper-based (single page, front and back) was used to reduce demographical limitations. To increase the response rate, the survey originated with a personalized cover letter in Swedish with an emphasis on confidentiality. The latter was distributed at malls and city centers precincts (boutiques and cafes), villages and neighborhood areas (door knocking) in seven different cities of Sweden whereas the web-based survey was subjected through SurveyMonkey via a social networking site (Facebook). Altogether, 210 completed surveys were recruited, from which 16 were eliminated as they were either incomplete or anomalies in responses, making a response rate of around 53 percent.

### 3.4 STATISTICAL TOOL AND DATA ANALYSIS APPROACH

The statistical tool and data analysis approach to test the proposed hypotheses were analyzed through the SPSS version 20.0.0 statistical program. The reason for employing the SPSS was to facilitate valid answers, such as missing values, means, medians, and standard deviations based on graphical and numerical techniques to present and summarize data (Keller, 2009). To assess the effect of the extracted dimensions of between the variables, the interactions between variables are illustrated via a graphical path diagram representation (Tabachnick & Fidell, 2001). The degree to which the sample data fits the hypothesized model fit is assessed through the AMOS version 21.0.0, since it is described as a user-friendly software computer program (Schumacker & Lomax, 1996). Structural Equation Modeling (SEM) is employed to analyze interactions between variables and to estimate the conceptualization outcome simultaneously (Ghauri & Gronhaug, 2010). Kelloway (1998) describe the process of SEM according to (1) every theory implies a set of correlations and, (2) after validating the theory, the model explains and reproduce patterns of correlations found in the empirical data.

The elements that describe the essence of this study, designed as means followed by Bryman and Bell (2011), must meet three main criteria prior the hypotheses testing: *content validity* and *construct validity* (convergent validity and discriminant validity) as well as the *reliability* to determine the commonness of a set of items in the particular constructed scales. Content validity is the degree to which items of an assessment measurement scale are relevant to, and representative of the particular construct for the target purpose. Based on relevant theories carried out from the background literature review, the selected constructs ground consistent to the empirical testing. The selected questionnaire items should thereby be carefully designed mainly for this research, as well as examined prior the data collection. In addition, descriptive statistics is analyzed on the demographic variables included in the questionnaire. Because demographic variables require sensitive analysis (Ghauri & Gronhaug, 2010), graphs are employed to present frequency scores, as well as measures of central tendency and dispersion (Davies *et al.*, 2002). Construct validity is the degree to which the assessment scales measures the targeted construct, by means of two key measures relevant for this research. Convergent validity concerns the degree to which the items are in agreement and comparable and theoretically related (van der Velde *et al.*, 2003) whereof it is estimated by the degree to which the items are related to the concepts as well as distinct unique (Singh, 2007). To enhance convergent validity, reliable data have been estimated through the *internal consistency reliability*. In particular, the reliability for each scale will be compared to the particular correlation followed as means to ensure discriminant validity (Sharma & Patterson, 1999). The refinement process incorporates data scanning of the variables and their variance to consequently reduce residuals (Byrne, 2001; Ghauri & Gronhaug, 2010). This increases construct validity in the sense of producing stable and consistent measurements scores whereby the objective stands for performing more than one measure in order to demonstrate that the new test is valid (Gravetter & Wallnau, 2004).

To start with, factor loading is the weight allocated to the path between a set of variables, referred to a latent variable and an observed variable (Easterby-Smith *et al.*, 2008), to the extent of testing whether multiple indicators are equivalent to the mean correlation of the survey instrument followed to verify convergent analysis. More specifically, factor analysis is employed to assess unidimensionality of each construct in the in the nested model. The Cronbach's coefficient alpha (see Cronbach, 1951) is an index of the internal consistency to estimate the reliability of the scales. The alpha coefficient ( $\alpha$ ) varies from 0 (no internal reliability) to 1.0 (perfect internal reliability), with a higher desired value, usually being over 0.7 (Nunnally, 1978; Hair, Andersson, Tatham & Black, 1998; van der Velde *et al.*, 2003; Bryman & Bell, 2011). In detail, the alpha coefficient of 0.9 and higher is excellent; 0.8 and higher is good; 0.7 and higher is acceptable; 0.6 and higher is questionable; 0.5 and higher is poor; and an alpha coefficient of 0.5 and lower is unacceptable (George & Mallery, 2003).

Correlation is a statistical measure to estimate the proportion of variability to the extent of the strength of the linear relationship between two variables (Ghuri & Gronhaug, 2010). Separately correlation is dimensionless whereas covariance variables are included as predictors in analysis of the two variable differences (Easterby-Smith *et al.*, 2008). In probability statistics, the correlation coefficient ( $r$ ) has theoretically a value between -1.00 (denotes a negative correlation between two variables) and +1.00 (denotes a positive correlation between two variables). The value at the end of the point of scale ( $r$  close to -1) occurs when a high value variable (X) correlates with the other low value variable (Y), implying a negative correlation whereby, no linear relationship between two variables denotes no correlation ( $r$  of .00), that is, no internal consistency (Bryman & Bell, 2011) where the relationship between the two variables is unrelated (van der Velde *et al.*, 2003; Davies *et al.*, 2002). Likewise, a perfect correlation exists when all points of both variables stand on a straight line ( $r = 1$ ), indicating and complete internal consistency (Bryman & Bell, 2011). In detail, the range of correlation coefficient is interpreted by Salkind (2009): 0.1 to 0.2 as weak or no relationship; 0.2 to 0.4 as a weak relationship; 0.4 to 0.6 as a moderate relationship; 0.6 to 0.8 as a strong relationship; 0.8 to 1.0 as a very strong relationship. The result of 0.8 and above implies a rather acceptable level of internal reliability (Bryman & Bell, 2011). Notably, the absolute value of correlation coefficient referred to the coefficient of determination is used when the measurement scale presents either ordinal or continuous associations (Easterby-Smith *et al.*, 2008). In this way, the square of the correlation coefficient also known as the multiple coefficient of determination ( $R^2$ ) (further assesses the proportions of variance of one variable to the extent of the other variable (van der Velde *et al.*, 2003; Ghauri & Gronhaug, 2010). Furthermore, when the null hypothesis is asymptotically true, a chi-squared ( $\chi^2$ ) test can be made to approximate the distribution as closely as desired. Likewise, regression analysis is a statistical measure commonly applied to estimate the relationship between two variables (Ghuri & Gronhaug, 2010), or in other words, to test relationship between the dependent variable and the independent variables (van der Velde *et al.*, 2003).

More specifically, regression analysis is applied to understand how the value of the only dependent contribution of a predictor variable is affected when one of the independent variables is



varied whilst the other independent variables are held fixed in a subsequent multiple regression analysis (Easterby-Smith *et al.*, 2008). Analysis of variance, described as the ANOVA was applied to examine the relationship of each construct and the intention to purchase new cosmetic products. The standardized regression ( $\beta$ ), also known as *Beta*, weight criteria should be above 0.5 (Byrne, 2001). In this way, the multiple regression analysis is, solely used for the purpose of testing the hypotheses.

To conclude, SEM provides the research with comprehensive means or paths “into one comprehensive statistical methodology” (Kaplan, 2000, p. 3), it is mainly employed to further assess and modify the hypothesized model (Bentler 1990, Jöreskog & Sörbom 2001; Tabachnick & Fidell, 2001). SEM is therefore employed in the sense of integrating *Factor Analysis*, *Correlation* and *Multiple Regression* (Tabachnick & Fidell, 2001), driven from the multivariate analytical technique (Kelloway, 1998).

## 4.1 DEMOGRAPHIC PROFILE OF THE STUDY PARTICIPANTS

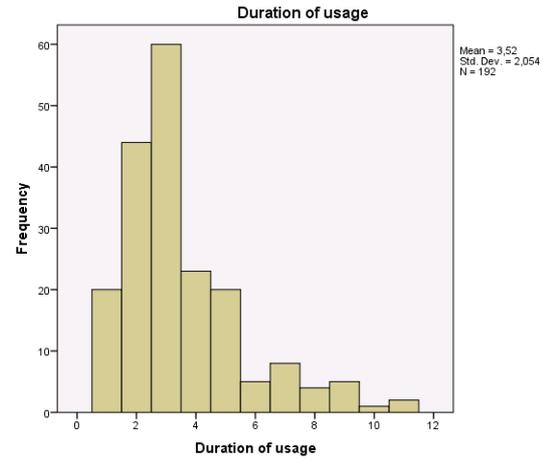
From the demographic variables, Table 4.1 illustrates the personal data of the study participants' demographic variables in terms of age, highest education, marital status and current residential status. The portion of participants with ages between 15 and 44 years represents four-fifths (83%) of the total 194 valid data. This skewed nature of the age distribution reflects a young study experiment group, particularly since the majority (36%) was somewhere in the age of at least 25 but not more than 34 years old, and almost as many (33%) belonged to the younger age segment, that is, at least 15 years, but less than 25 years old. Most respondents had at least a university background (64%) and yet, several countered for upper secondary school or equivalent (28%) as their highest education. This reflects their educational background, since the latter is a non-compulsory school in Swedish education system. Most respondents were single (31%) but also a large majority had some kind of partner-relationship in terms of living separately (18%) or cohabiting (22%) with a partner. Additionally, one-fourth (24%) was married and nonetheless. As for the residence, the majority (85%) of study participants resided in urban areas, roughly corresponding to an analogous portion between metropolitan areas (Stockholm, Göteborg, Malmö) and other urban areas. In line with this skewed nature of the residential distribution, almost 10 percent of all respondent lived in rural areas reflecting the nature of Sweden's demography as the largest majority of Sweden's population resides in urban areas, they were also more likely to be found in urban areas. Moreover, some participants (5%) lived, at that time, somewhere else than the alternatives, or in other words, other than urban or rural areas. Full data is presented in Appendix 3.

**Table 4.1** Demographic Profile of the Study Participants Personal Data

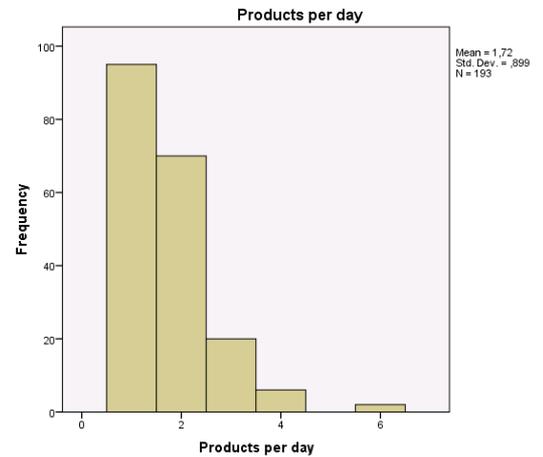
Demographics	Frequency	Percent	Demographics	Frequency	Percent
<b>Age</b>			<b>Marital Status</b>		
Under 15	3	1.5	Single	64	33.0
15 but less than 25	64	33.0	Partner (living separately)	34	17.5
25 but less than 35	69	35.6	Partner (cohabiting)	42	21.6
35 but less than 45	28	14.4	Married	46	23.7
45 but less than 55	17	8.8	Divorced/Separated	3	1.5
55 but less than 65	10	5.2	Widow	2	1.0
65 and above	3	1.5	<i>In total</i>	<i>191</i>	<i>98.5</i>
<i>In total</i>	<i>194</i>	<i>100.0</i>	<i>Missing data</i>	<i>3</i>	<i>1.5</i>
<i>Missing data</i>			<b>Place of Residence</b>		
<b>Highest education</b>			Metropolitan area	85	43.8
Compulsory school	12	6.2	Urban area	80	41.2
Upper secondary school	54	28.3	Rural area	19	9.8
University and above	125	65.4	Other	9	4.6
<i>In total</i>	<i>191</i>	<i>98.5</i>	<i>In total</i>	<i>193</i>	<i>99.5</i>
<i>Missing data</i>	<i>3</i>	<i>1.5</i>	<i>Missing data</i>	<i>1</i>	<i>.5</i>

Note. N=194 (100.0%)

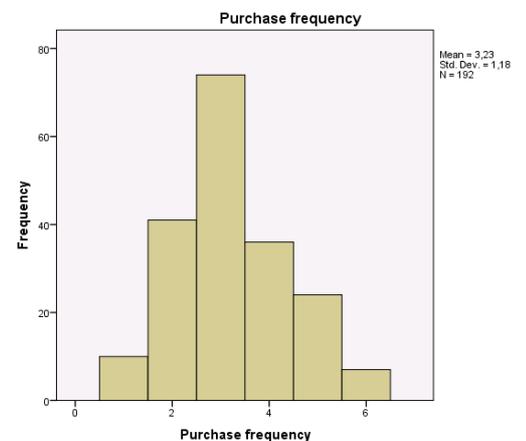
The majority of the study participants had a cosmetic background experienced with at least five but not more than nine years (23%); at least 10 but less than 15 years (31%) and; at least 15 but less than 20 years (12%), respectively, accounting for 127 respondents. Of these, almost half (45%) belonged to the middle range, signifying a rather skewed portions of respondents followed by almost as many with less than five years experience as well as the five-year segment above 19 years are linked to an analogous percentage of ten. Likewise, study participants with at least 25 years and up to 44 years of cosmetic experience, accounts for an even portion of average frequency reflecting a close ordinary histogram toward the early years and thus, slightly ordinary ranging from 1 to 11, with a mean of 3.52 and a variance of 2.05.



In line with the average cosmetic experience between 10 to 14 years, most study participants used fewer products per day compared to the six different alternatives they had. Referring to the average use of the overall cosmetic products in terms of both skincare and make-up cosmetic products, about 85 percent of the study participants reported using up to seven cosmetic products every day. Of the total 193 valid answers, 95 respondents (49%) used up to three products on a daily basis, 70 respondents (36%) used at four but less than eight products every day and also, 20 respondents (10%) used at least eight but not more than 12 products every day demonstrating a cumulative histogram ranging from 1 to 6, with a mean of 1.72, and a variance of 0.90.



Another pinpoint for the study participants may be viewed in their cosmetic purchase frequency of facial skincare and make-up cosmetic products. First in that, the largest majority (38%) tends to purchase cosmetics about once every three months, several (21%) had a monthly purchase frequency and some (5%) more than once a month. Subsequently, the portion of buying cosmetics represents a clear ordinary histogram in terms of the three first categories associated with a purchase frequency of at least once every three months in which represents 125 (64%) study participants of the total. This number is higher comparing to those respondents purchasing cosmetics once every six months (19%) and once a year (12%). The range of the cosmetic purchase frequency was from 1 to 6, with a mean of 3.23, and a variance of 1.18.



From Table 4.2 presented underneath, the demographic variable subjects the overall cosmetic consumption variables in terms of duration of cosmetic usage (in age), numbers of cosmetic products use per day and, the cosmetic purchase frequency. See Appendix 3 for full data.

**Table 4.2** Demographic Profile of the Study Participants Cosmetic Behavior

Demographics	Frequency	Percent	Demographics	Frequency	Percent
<b>Duration of Cosmetic usage</b>			<b>Cosmetic product use per Day</b>		
Less than 5 years	20	10.3	Less than 4 products	95	49.0
5 but less than 10 years	44	22.7	4 but less than 8 products	70	36.1
10 but less than 15 years	60	30.9	8 but less than 12 products	20	10.3
15 but less than 20 years	23	11.9	12 but less than 16 products	6	3.1
20 but less than 25 years	20	10.3	16 but less than 20 products	0	0
25 but less than 30 years	5	2.6	More than 20 products	2	1.0
30 but less than 35 years	8	4.1			
35 but less than 40 years	4	2.1	<i>In total</i>	<i>193</i>	<i>99.5</i>
40 but less than 45 years	5	2.6	<i>Missing data</i>	<i>1</i>	<i>.5</i>
45 but less than 50 years	1	0.5	<b>Cosmetic Purchase Frequency</b>		
More than 50 years	2	1.0	More than once a month	10	5.2
<i>In total</i>	<i>192</i>	<i>99.0</i>	About once a month	41	21.1
<i>Missing data</i>	<i>2</i>	<i>1.0</i>	About once every three months	74	38.1
			About once every six months	36	18.6
			About once a year	24	12.4
			Anytime	7	3.6
			<i>In total</i>	<i>192</i>	<i>99.0</i>
			<i>Missing data</i>	<i>2</i>	<i>1.0</i>

Note. N=194 (100.0%)

#### 4.2 MEASUREMENT ANALYSES

After data collection, all items were evaluated for reliability and validity in order to ensure the analytical accuracy. To assess unidimensionality of each construct in the measurement model, the procedure is similar to Tajeddini (2010) where a Confirmatory Factor Analysis (CFA), based on Ravichandran (2005), is to outline the relationship between each variable as well as the constituent items to the extent of testing unidimensionality. A purification process was applied to assess the reliability of the measurement model in terms of unidimensionality, discriminant validity and convergent validity (Gerbing & Andersson, 1988). Unidimensionality is the prerequisite for reliability and validity analyses (Nunnally, 1978) whereby convergent validity is assessed when items load strong with its associated factors and discriminant validity is demonstrated if all items load stronger within the associated factors. The second test is demonstrated through the suitability of the selected items for the characteristics reliability.

The assessments of the CFA were conducted via the proposed measurement model from Appendix 4 and measurement of each item were conducted via the item-total correlation analysis in the Reliability Statistics from Appendix 5. By using a self-reported rating, the Measurement Model for Skincare is presented in Table 4.3 and for Make-up in Table 4.4.

The CFA for the Skincare Cosmetic Measurement Model is presented in Table 4.3. The factor analysis allocated the 10 original multi-items into three constructs where each factor demonstrated an eigenvalue greater than 1.0 (from Appendix 4). To start with, all items for the Attitude (AT1, AT2, AT3, AT4), with factor loadings from a low of .71 to a high of .86, were all comprised into the first construct, whereby the second construct is featured as the Subjective Norm with its both original items (SN1, SN2) loading from .86 to .95. The Cronbach's coefficient alphas for the attitude ( $\alpha = .88$ ) and for the subjective norm ( $\alpha = .90$ ) have significant values in terms of how the prior is close to the latter that demonstrate an excellent value. Furthermore, the original four items in the construct of Consumer Innovativeness (CI1, CI2, CI3, CI4) innovativeness were accompanied by an elimination analysis of the items reliability. In order to score higher values, two items were deleted and, nonetheless the selected items for consumer innovativeness (CI3, CI4) loaded from .79 to .89 as well as the Cronbach's coefficient alphas ( $\alpha = .82$ ) demonstrated a good reliable value.

**Table 4.3** Skincare Cosmetic Measurement Model and Confirmatory Factor Analysis

Constructs	Indicator (sources)	Factor Loadings
<b>Attitude</b> (N of items = 4) ( $\alpha = .875$ )		
<b>AT1</b>	Using skincare products is a good idea	.82
<b>AT2</b>	Using skincare products is wise	.84
<b>AT3</b>	I like the idea of using skincare products	.86
<b>AT4</b>	To me, skincare products are pleasurable	.71
<b>Subjective Norm</b> (N of items = 2) ( $\alpha = .897$ )		
<b>SN1</b>	People who are important to me think that I should use skincare products	.86
<b>SN2</b>	Most people who influence my behavior think that I should use skincare products	.95
<b>Consumer Innovativeness</b> (N of items = 2) ( $\alpha = .820$ )		
<b>CI1</b>	<i>Generally, I spend little time exploring how to use new skincare products</i>	-.23
<b>CI2</b>	<i>In general, I am hesitant to try out new skincare products</i>	.17
<b>CI3</b>	Among my peers, I am usually the first to try out new skincare products	.79
<b>CI4</b>	I like to experiment with new skincare products	.89

Note. *Italic items (CI1, CI2) were dropped for the sake of model fit.*

Chi-Square ( $\chi^2$ ) = 59.64; Degree of Freedom ( $df$ ) = 17;  $p$ -value = .00;  $\frac{\chi^2}{df}$  = 3.51, Incremental Fit Index (IFI)  $\Delta$  = .95; Tucker-Lewis Index (TLI)  $\rho$  = .90; Comparative Fit Index (CFI) = .95; and the Root Mean Square Error of Approximation (RMSEA) = .11.

A Chi-Square test ( $\chi^2 = 59.64$ ;  $df = 17$ ), is calculated on the nested model ( $\frac{\chi^2}{df}$ ) to 3.51 which is a result of an acceptable model fits of the skincare cosmetics measurement model, as it is below the recommended maximum value below 5 (Easterby-Smith *et al.*, 2008). This increases the discriminant validity (Andersson & Gerbing, 1988) and calls for further investigation. The skincare model parsimony likewise indicates further good-fitting values to the estimated model, in terms of how the three critical values for IFI (.95), TLI (.90) and CFI (.95) are all above the advocated 0.9 (Kelloway, 1998; Hu & Bentler, 1999). Additionally, the RMSEA value in the skincare model (.09) is close to the acceptable value of 0.08 (Hair *et al.*, 1998) further indicating its acceptable fit.

Table 4.4 illustrates the CFA for the Make-up Cosmetic Measurement Model, based on the 10 original items allocated into three constructs with an eigenvalue greater than 1.0 (from Appendix 4). The first factor incorporated all original items for the Attitude (AT1, AT2, AT3, AT4) with factor loadings from a low of .80 to a high of .87 and the Subjective Norm included both original items (SN1, SN2), with factor loadings above .90. Likewise, the reliability estimates for attitude ( $\alpha = .90$ ) as well as for subjective norm ( $\alpha = .92$ ) are not only higher than in the previous measurement model but the also exceed the minimum value of demonstrating excellent values. Moreover, the construct of Consumer Innovativeness also dropped two similar items as in the previous model, due to how the standard Cronbach's alpha value (.037) as well as the next assessed value (.533) was below the desired value of 0.7. In this way, the reliability estimates for the selected items (CI3, CI4) record a good coefficient alpha value ( $\alpha = .82$ ), with factor loadings from .83 to .84 in the new model.

**Table 4.4** Make-up Cosmetic Measurement Model and Confirmatory Factor Analysis

Constructs	Indicator (sources)	Factor Loadings
<b>Attitude</b> (N of items = 4) ( $\alpha = .901$ )		
<b>AT1</b>	Using make-up products is a good idea	.87
<b>AT2</b>	Using make-up products is wise	.85
<b>AT3</b>	I like the idea of using make-up products	.81
<b>AT4</b>	To me, make-up products are pleasurable	.80
<b>Subjective Norm</b> (N of items = 2) ( $\alpha = .915$ )		
<b>SN1</b>	People who are important to me think that I should use make-up products	.91
<b>SN2</b>	Most people who influence my behavior think that I should use make-up products	.93
<b>Consumer Innovativeness</b> (N of items = 2) ( $\alpha = .819$ )		
<b>CI1</b>	<i>Generally, I spend little time exploring how to use new make-up products</i>	-.29
<b>CI2</b>	<i>In general, I am hesitant to try out new make-up products</i>	.09
<b>CI3</b>	Among my peers, I am usually the first to try out new make-up products	.84
<b>CI4</b>	I like to experiment with new make-up products	.83

Note. *Italic items (CI1, CI2) were dropped for the sake of model fit.*

Chi-Square ( $\chi^2$ ) = 81.12; Degree of Freedom ( $df$ ) = 17;  $p$ -value = .00;  $\frac{\chi^2}{df}$  = 4.77; Incremental Fit Index (IFI) = .94; Tucker-Lewis Index (TLI) = .87; Comparative Fit Index (CFI) = .94; and the Root Mean Square Error of Approximation (RMSEA) = .14.

The Chi-Square test for the make-up cosmetic model ( $\chi^2 = 81.12$ ,  $df = 17$ ) determines a value of 4.77, as a result of a value close to the recommended, thus an acceptable model fit. The fit indices for IFI (.94), TFI (.87) and CFI (.94) indicate two values above the recommended minimum value of 0.9. On the other hand, in accordance to some other studies (e.g., Jöreskog & Sörbom, 2001), suggests good-fitting values above 0.85. In this way, the fit indices supports model parsimony for the make-up model. Likewise, although the RMSEA value is calculated to .14, which, in one hand, is above the recommendations of indicating a good fit. It can be argued that RMSEA is usually applied to support large samples (Hu & Bentler, 1999). In support of Kline (2005), the model estimation is related to its specific procedures whereas the approximate value should be considered here.

### 4.3 HYPOTHESIS ANALYSIS AND RESULTS

While the cosmetic consumers' evaluated their perceptions of the specific research variables concerning both skincare and make-up on a 5-point Likert scale, the relationship between these three variables were examined prior the hypotheses testing procedure. To address the relationship between Attitude (1), Subjective Norm (2), Consumer Innovativeness (3) and the dependent variable including two measurements. The first measurement model (4), referred to Model 1 includes the single-item of measuring the Purchase Intention (INT1) whereas the second measurement of the dependent variable (5) in Model 2 is an extended version that, besides the original Purchase Intention (INT1) incorporates the average Cosmetic Spending/month (INT2). The latter model is associated with further investigations, and the coding frame of the extended dependent variables will be detailed in Chapter 5.

In the first step, the research variables were distributed via the Pearson Correlation Index (see Pearson, 1896; Fisher, 1935), outlined in Appendix 6, and tested through a bivariate correlation analysis. The Correlation Matrices for skincare is presented in Table 4.5 and concerning make-up in Table 4.7, includes intercorrelations between variables illustrated in the lower triangle as well as the shared measures for all variables, including the mean, standard deviation (SD) and sample size (N). In addition, the multiple coefficient of determination summarized by the square of the correlation coefficient ( $R^2$ ) is presented in the upper triangle of the Correlation Matrices. The shared variance should exceed the 10 percent level (van der Velde *et al.*, 2003; Ghauri & Gronhaug, 2010).

Secondly, multiple regression analysis was performed for the purpose of the hypotheses results (Ghauri & Gronhaug, 2010). The value of a certain independent influence of a dependent or the predictor variable (van der Velde *et al.*, 2003; Easterby-Smith *et al.*, 2008) refers to the standardized regression weight ( $\beta$ ) also know as *Beta* in a subsequent multiple regression analysis. More specifically, the six hypotheses postulate the impact of three independent variables, Attitude (Hypotheses 1), Subjective norm (Hypotheses 2) and Consumer Innovativeness (Hypotheses 3) on the dependent variable, cosmetic consumers' intention to purchase new skincare in the future (Hypotheses 1-3a) and make-up (Hypotheses 1-3b) cosmetic products in the future. The next two tables present the results of the multiple regressions for the single dependent item in Model 1 (INT1) to the left and Model 2 (INT1 and INT2) to the right shows the average cosmetic spending per month as well. The regression results are summarized in the analysis of variances (ANOVA) in Appendix 7.

To start with, Table 4.5 shows the Correlation Matrix for research variables in the Skincare Cosmetic Model. The highest positive correlation was identified between attitude and subjective norm ( $r = .48$ ;  $p < .01$ ) as well as to consumer innovativeness ( $r = .45$ ;  $p < .01$ ). Positive correlations exist between attitude and intention to purchase new skincare products ( $r = .48$ ;  $p < .01$ ) but also in the relationship to the extended version of purchase intention in terms of intention to purchase new skincare cosmetics and the average cosmetic spending per month ( $r = .44$ ;  $p < .01$ ). With regards to the extended purchase intention, the relationship to consumer innovativeness was significant ( $r = .45$ ;  $p < .01$ ) and thus indicated less moderate correlation to the single purchase intention variable ( $r = .39$ ;  $p < .01$ ). A moderate correlation is also demonstrated in the relationship between consumer innovativeness and subjective norm ( $r = .40$ ;  $p < .01$ ). Subjective norm, on the other hand, seem to be the only variable conveying a weak correlated relationship to intention to purchase new skincare cosmetic products ( $r = .23$ ;  $p < .01$ ) and also to the extended version of purchase intention ( $r = .27$ ;  $p < .01$ ).

**Table 4.5** Skincare Cosmetics Correlation Matrix

Construct	1	2	3	4
<i>Independent Variables</i>				
1. Attitude	1	.232	.204	.227
2. Subjective Norm	.482**	1	.162	.052
3. Consumer Innovativeness	.452**	.402**	1	.151
<i>Dependent Variables</i>				
4. Intention to Purchase New Skincare Products (INT1)	.476**	.227**	.389**	1
5. Intention to Purchase New Skincare Products (INT1) and, average Cosmetic Spending/month (INT2)	.440**	.265**	.451**	1
<b>Mean</b>	3.81	2.68	2.77	3.65
<b>Standard Deviation</b>	1.03	1.22	1.21	1.11
<b>Sample Size</b>	191	192	193	192

Note. \*\*Correlation is significant at the 0.01 level (two-tailed test)

Furthermore, the shared variance for the skincare variables ranged from a low of 5 percent to a high of 28 percent. Despite the correlation between subjective norm and intention, the other variance all exceed the recommended 10 percent level.



Results of the Multiple Regression Analysis for the skincare model, presented in Table 4.6 show that the addition of average spending per month in model 2 improves the amount of variance in consumer innovativeness and intention to purchase new skincare cosmetic products. It was hypothesized that attitude (Hypothesis 1a), subjective norm (Hypothesis 2a) and consumer innovativeness (Hypothesis 3a) will promote cosmetic consumers' intention to purchase new skincare products in the future. Overall, the quality of model 1 shows that 26.5 percent ( $R^2 = .265$ ;  $F = 22.85$ ;  $p < .01$ ) and, 27.1 percent in model 2 ( $R^2 = .271$ ;  $F = 23.56$ ;  $p < .01$ ), of cosmetic consumers' intention to purchase new skincare cosmetic products is explained by attitude, subjective norm and consumer innovativeness.

**Table 4.6** Multiple Regression Results of Skincare Cosmetics

	Model 1				Model 2			
	B	Beta	t-value	$\rho$	B	Beta	t-value	$\rho$
<i>Independent Variables</i>								
Attitude	.493	.398	5.31	.000	.54	.299	4.0	.000
Subjective Norm	-.056	-.059	-.81	.421	.011	-.008	-.1	.914
Consumer Innovativeness	.32	.232	3.23	.001	.484	.317	4.44	.000
<b>R<sup>2</sup></b>	.265				.271			
<b>Adjusted R<sup>2</sup></b>	.253				.260			
<b>F-value for R<sup>2</sup> (3, 190)</b>	22.85**				23.56**			

Note. Model 1 = dependent variable: Intention to purchase new skincare cosmetic products (INT1)

Model 2 = dependent variable: INT1 and average cosmetic spending/month (INT2)

\*\* $p < .01$ .

In *Hypothesis 1a*, the impact of attitude toward skincare products demonstrates a positive impact on impact on cosmetic consumers' intention to purchase new skincare cosmetic products in the future ( $\beta = .40$ ;  $p < .01$ ). For the second dependent variable in model 2, this interaction was also positive and thus slightly moderated ( $\beta = .30$ ;  $p < .01$ ). Attitude became significant in the main model as the results support Hypothesis 1a. *Hypothesis 2a* pertains to the effect of consumers' perceptions of subjective norm on intention to purchase new skincare products in the future. With respect to the independent variable, purchase intention in model 1 ( $\beta = -.06$ ; n.s.) and to the second dependent variable ( $\beta = -.01$ ; n.s.) were found to have a negative impact to cosmetic consumers' intention to purchase new skincare cosmetic products in the future. Thus, consumers' perception of subjective norm became insignificant in the main model, as the results did not support Hypothesis 2a. *Hypothesis 3a* proposes that a consumer with a higher tendency to try skincare cosmetics would be more aligned to purchase new skincare products in the future. The results show that consumer innovativeness would be positively associated with intention to purchase in model 2 ( $\beta = .32$ ;  $p < .01$ ) as well as consumer innovativeness in model 2 was not rejected ( $\beta = .23$ ;  $p = .001$ ). Yet, Hypothesis 3a is supported and thus not significant in the main model.

Table 4.7 show the means, standard deviations, and intercorrelations matrix for research variables in the Make-up Cosmetic Model. The influences of the independent variables toward the behavior for make-up are more diverse denoting higher correlations. Similarly to skincare cosmetics, the significance of attitude toward all other variables demonstrates a moderate correlation. The strongest intercorrelations was viewed in the relationship between attitude and purchase intention ( $r = .55$ ;  $p < .01$ ) and closely followed by subjective norm ( $r = .53$ ;  $p < .01$ ) as well as consumer innovativeness ( $r = .51$ ;  $p < .01$ ). The correlation coefficient for attitude and intention to purchase new make-up products are interpreting a close value to a strong relationship, suggested by Salkind (2009) in contrast to the moderate relationship to the extended version of purchase intention ( $r = .47$ ;  $p < .01$ ). With regards to the extended purchase intention, a moderate relationship exists to consumer innovativeness ( $r = .46$ ;  $p < .01$ ), which was more positively correlated than the simple construct of purchase intention ( $r = .39$ ;  $p < .01$ ). Likewise, the intercorrelations of consumer innovativeness and subjective norm ( $r = .35$ ;  $p < .01$ ) were weakly positive correlated. Yet the relationship between subjective norm and intention to purchase new make-up products ( $r = .28$ ;  $p < .01$ ) demonstrate a similar correlation in the subsequent extended construct of purchase intention ( $r = .24$ ;  $p < .01$ ).

**Table 4.7** Make-up Cosmetics Correlation Matrix

Construct	1	2	3	4
<i>Independent Variables</i>				
1. Attitude	1	.280	.256	.306
2. Subjective Norm	.529**	1	.120	.078
3. Consumer Innovativeness	.506**	.346**	1	.152
<i>Dependent Variables</i>				
4. Intention to Purchase New Make-up Products (INT1)	.553**	.280**	.390**	1
5. Intention to Purchase New Make-up Products (INT1) and, average Cosmetic Spending/month (INT2)	.466**	.239**	.460**	1
<b>Mean</b>	3.81	2.53	2.91	3.85
<b>Standard Deviation</b>	1.08	1.14	1.15	1.11
<b>Sample Size</b>	191	192	191	192

Note. \*\*Correlation is significant at the 0.01 level (two-tailed test)

The shared variance for the make-up variables ranged from a low of 8 percent to a high of 31 percent denoting that the results for cosmetic consumers' perceptions of subjective norm did not support the proposed hypotheses for both cases.

The Multiple Regression Analysis for the Make-up Cosmetic Model, illustrated in Table 4.8, observes similar variables as for the skincare model in terms of the single-item measurement in Model 1 and the addition of average cosmetic spending per month in Model 2. Whilst, it was hypothesized that attitude (Hypothesis 1a), subjective norm (Hypothesis 2a) and consumer innovativeness (Hypothesis 3a) will promote cosmetic consumers' purchase intention, the overall quality of model 1 shows that 32.3 percent ( $R^2 = .323$ ;  $F = 29.94$ ;  $p < .01$ ) and 28.6 percent ( $R^2 = .286$ ;  $F = 25.16$ ;  $p < .01$ ) of cosmetic consumers' intention to purchase new skincare cosmetic products is explained by attitude, subjective norm and consumer innovativeness.

**Table 4.8** Multiple Regression Results of Make-up Cosmetics

	Model 1				Model 2			
	B	Beta	t-value	$\rho$	B	Beta	t-value	$\rho$
<i>Independent Variables</i>								
Attitude	.568	.495	6.40	.000	.564	.335	4.21	.000
Subjective Norm	.034	-.035	-.49	.624	-.067	-.045	-.61	.542
Consumer Innovativeness	.145	.152	2.17	.031	.457	.307	4.27	.000
<b>R<sup>2</sup></b>	.323				.286			
<b>Adjusted R<sup>2</sup></b>	.312				.275			
<b>F-value for R<sup>2</sup> (3, 188)</b>	29.94**				25.16**			

Note. Model 1 = dependent variable: Intention to purchase new make-up cosmetic products (INT1)

Model 2 = dependent variable: INT1 and average cosmetic spending/month (INT2)

\*\* $p < .01$ .

*Hypothesis 1b*, which hypothesized that attitude, would interact to predict cosmetic consumers' intention to purchase new skincare cosmetic products in the future in model 1 ( $\beta = .50$ ;  $p < .01$ ) and in model 2 ( $\beta = .34$ ;  $p < .01$ ) remained strong in the main model. The significance of attitude toward make-up cosmetics in the main model supports Hypothesis 1b. However, *Hypothesis 2b* positing that perceptions of subjective norm toward make-up cosmetics would be positively associated with intention to purchase new make-up products in the future demonstrated a negative impact in model 1 ( $\beta = -.04$ ; n.s.) as well as in model 2 ( $\beta = -.05$ ; n.s.). Hypothesis 2b was rejected in the main model. *Hypothesis 3b*, which stipulated a positive relation between consumer innovativeness toward intention to purchase new make-up cosmetic products in model 1 ( $\beta = .15$ ;  $p < .01$ ) and in model 2 ( $\beta = .31$ ;  $p < .01$ ) was not rejected. Yet the results stipulated a positive relationship and thus rather with a minor significance. Therefore, Hypothesis 3b is not rejected in the main model.

### 5.1 SUMMARY OF THE STRUCTURAL EQUATION MODELING

With the aim to follow the validation of the measurement model, the proposed hypotheses are verified on a further investigation of the unconstrained full model with factor interactions. To this purpose, the extracted dimensions between latent variables is tested in association between the independent variables as well as to the dependent variable by way of which, as previously discussed, the full model accounts for intention to purchase new cosmetic products in the future and the average cosmetic spending per month.

First and foremost, since all scales follow a specific coding frame designed to identify the different types of answers associated with each question and the corresponding codes (Bryman & Bell, 2011), it is necessary to track the measure of the extended dependent variable. With regard to the specific coding schedule, the aim is now to allocate each answer in the open-ended question to the processing of data. Due to the specificity in the question asking about the average cosmetic spending per month, the comparable set of answers ought to divide the replies into five groups, ranging from a low amount of spending in terms of a low future purchase intention (1) to the highest spending in terms of a high future purchase intention (5). The ranging is measured as: 1 (*Strongly Disagree*) – 2 (*Disagree*) – 3 (*Neutral*) – 4 (*Agree*) – 5 (*Strongly Agree*). The bar chart for skincare is shown in Figure 5.1 and for make-up in Figure 5.2. See Appendix 9 for full data of the dependent variable.

Figure 5.1 Skincare Bar Chart

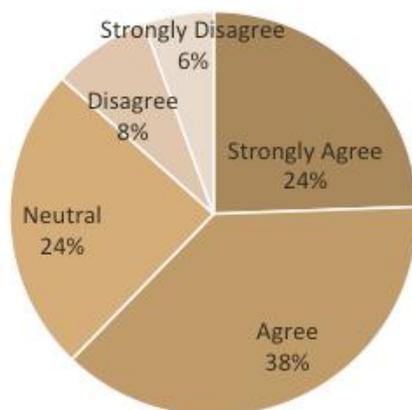
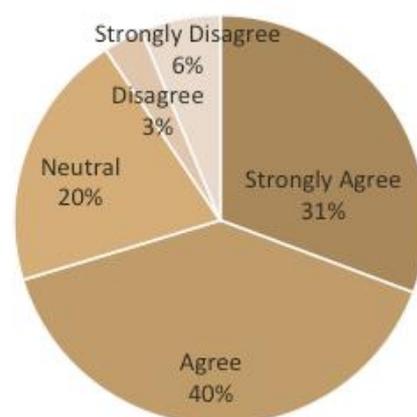


Figure 5.2 Make-up Bar Chart



Through a comprehensive investigation of the statistical measurement analysis, the results for the full model are summarized in a graphical path through the AMOS. As was previously mentioned, Structural Equation Modeling (SEM) is employed to analyze interactions between variables and to estimate the conceptualization outcome simultaneously (Ghauri & Gronhaug, 2010). In reference to psychometric indices in the main effect model did not support the casual relationship (see Appendix 8), the fit indices from the model estimation differs in terms of how the model estimation is related to its specific procedures (Kline, 2005). Therefore, a structural equation system is carried out on the assessed factor interactions and respecified measurement model in terms of the full model with interactions between independent variables. In this way, instead of using p-values for accepting ( $H_0$ ), a Chi-Square test is calculated on the nested full model, illustrated as the value of  $\frac{\chi^2}{df}$ , where the distribution of variances are used for identifying the spread according as the hypotheses testing. The model is accepted when this values is below the recommended maximum value of 5 (Easterby-Smith *et al.*, 2008).

The Chi-Square estimates the differences between observed sample covariance (correlation) value and the fitted covariance (correlation) counts to the standard deviation of the expected element (Schumacker & Lomax, 1996). The Chi-Square represent the sum of the standardized residual is illustrated as:  $\chi^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}}$ , whereas the Degree of freedom ( $df$ ) is the value that defined the shape of the standard reference distribution by means of the hypotheses testing (Easterby-Smith *et al.*, 2008).

To start with, the low Chi-Square values accessed ( $\chi^2_{sc} = 76.7$  and  $\chi^2_{mc} = 113.11$ ), specifies good fit at the statistical significantly lower Chi-Square test on the nested full effect skincare cosmetic model ( $\chi^2 = 77$ ,  $df = 29$  at a  $\rho = .00$ ) and the full effect make-up cosmetic model ( $\chi^2 = 113.90$   $df = 29$  at a  $\rho = .00$ ). The models are thereby accepted, as the value of the Chi-Square test for skincare ( $\frac{\chi^2}{df} = 2.64$ ) as well as for make-up ( $\frac{\chi^2}{df} = 3.90$ ) are below the recommended maximum value of 5. As a result, this increases the discriminant validity (Andersson & Gerbing, 1988) in which calls for further investigation.

Full data for the model estimation and both models are presented in Appendix 10 (see also Model 2 in Table 4.5 and 4.6 for skincare cosmetic results and Table 4.7 and 4.8 for make-up cosmetic results). Because the models are required to achieve a specific level of fit indices, Table 5.1 on the following page, outlines the fit indices for both models.

In order to assess and modify the hypothesized models (Bentler 1990, Jöreskog & Sörbom 2001; Tabachnick & Fidell, 2001), the Goodness-of-Fit rather distinguish the absolute fit indices of the full model with interactions between independent variables from the main measurement model estimation. On this basis, the estimated coefficients are assessed through a model parsimony, presented in Table 5.1, with fit criterias such as: Incremental Fit Index (IFI) and Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA).

**Table 5.1** The Goodness-of-Fit indices for the Hypothesized Models

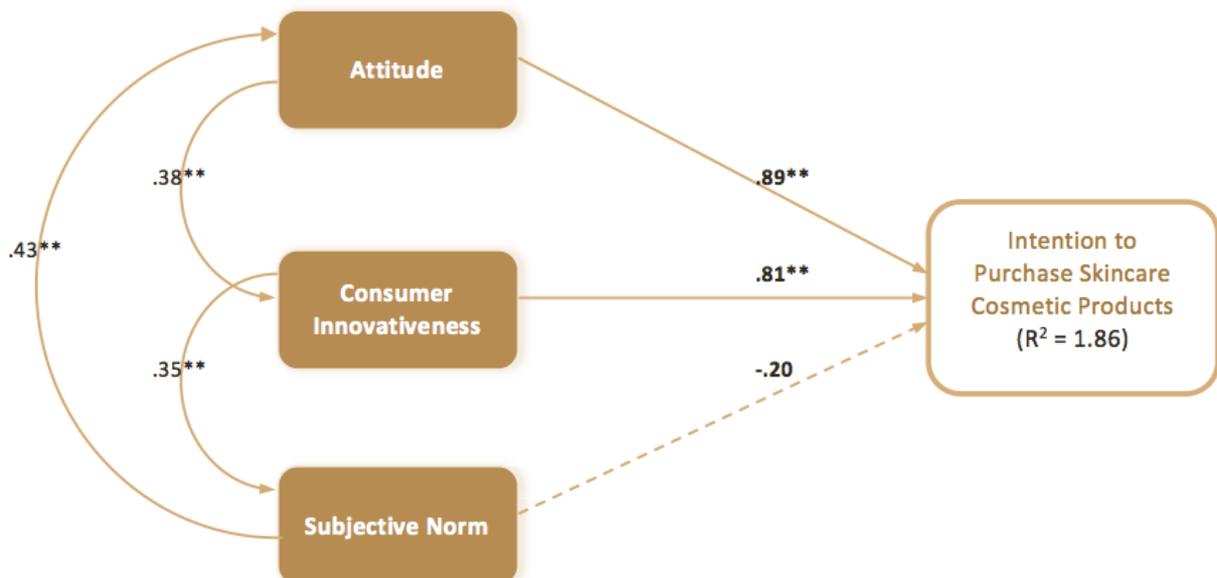
	$\chi^2$	df	$\rho$	$\chi^2/df$	IFI Delta 2	TLI rho2	CFI	RMSEA
<i>Skincare</i>	76.7	29	.00	2.64	.95	.91	.95	.09
<i>Make-up</i>	113.11	29	.00	3.90	.93	.86	.92	.12

At fist glance, the full skincare model parsimony indicates further good-fitting values to the estimated model, in terms of how the values for IFI (.95), TLI (.91) as well as for CFI (.95) are all above the advocated 0.9 (Kelloway, 1998; Hu & Bentler, 1999), and provides further evidence for the good-fitting model. Regarding the full make-up mode, the IFI (.93) and the CFI (.92) achieve this recommended level. Although, it has been echoed that the combination of these three fit indices provides higher critical values when it is below the 0.9 level (Hu & Bentler, 1999), some other studies suggest a value above 0.85 (e.g., Jöreskog & Sörbom, 2001). Based on the latter, the TLI (.86) in the make-up model support further evidence for good fit. Moreover, the RMSEA value in the skincare model (.09) is close to the acceptable value of 0.08 (Hair *et al.*, 1998) further indicating its acceptable fit. The RMSEA calculates the discrepancy of the model and the make-up RMSEA value (.12) did not meet the acceptable standards of recommendations to provide a good fit. It can be argued that RMSEA is usually applied to support large samples. In support of Kline (2005), the model estimation is related to its specific procedures whereas the approximate value is considered here.

Full data for the model estimation and both models are detailed in Appendix 10 (see also Model 2 in Table 4.5 and 4.6 for skincare cosmetic results and Table 4.7 and 4.8 for make-up cosmetic results). Next, the results of the full model are presented for the full skincare model in Figure 5.3 and the full make-up model in Figure 5.4.

Figure 5.3 elucidates the statistical analysis for the full skincare model with integrated independent variables. The summary exposed in the aforementioned results support the casual relationships proposed for attitude in hypothesis 1a as well as for consumer innovativeness in hypotheses 3a. Furthermore, the result follows the hypothesized model and thus the extracted dimensions between independent variables. The full model support the casual relationship proposed in the previous section for the attitude in Hypothesis 1a as well as for the consumer innovativeness in Hypothesis 3a. The direct significant effect of the attitude ( $\beta = .89$ ;  $p < .01$ ) as well as the consumer innovativeness ( $\beta = .81$ ;  $p < .01$ ) on the dependent variable provides additional empirical support. The full skincare model shows not only significant positive influences but it is noticeably since the standardized coefficients of consumer innovativeness on purchase intention is close to the approximation value viewed between attitude and the dependent variable. Furthermore, this could be due to the indirect influence from the attitude ( $\beta = .38$ ;  $p < .01$ ). Therefore, the construct of attitude has direct impact toward the dependent variable as well as a positive relationship to the independent variable. Consumer innovativeness, on the other hand, demonstrated a direct impact on the dependent variable and also a positive influence toward the subjective norm ( $\beta = .35$ ;  $p < .01$ ). With reference to the early model estimation method, the negative impact of subjective norm to perform the behavior obtained support previous claims whereby thereof empirical evidence is verified in the indirect influence through attitude ( $\beta = .43$ ;  $p < .01$ ) toward the dependent variable. The findings show the importance of cosmetic consumers' attitude toward skincare cosmetics.

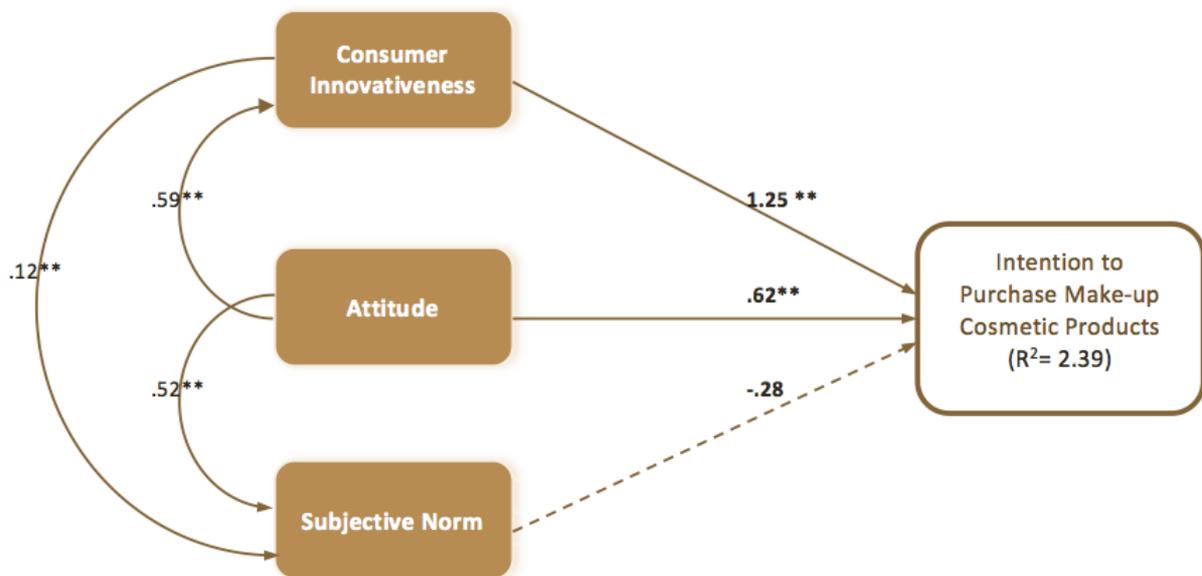
**Figure 5.3** The Result of the Hypothesized Model of Skincare Cosmetics



Note. Figure 5.3 includes standardized parameter estimates ( $\beta$ ) for each relationship examined. Attitude (AT1, AT2, AT3, AT4), Subjective Norm (SN1, SN2), Consumer Innovativeness (CI3, CI4), Skincare Cosmetic Product Purchasing Intention (INT1, INT2).  $**p < .01$ .

The result for the make-up model with factor interactions is summarized in a structural equation system presented in Figure 5.4. The summary exposed in the results support the casual relationships proposed for attitude in hypothesis 1b as well as for consumer innovativeness in hypotheses 3a, and nonetheless, rejects hypothesis 2b concerning subjective norm. Consistent to the early model estimation method, attitude toward the behavior in Hypothesis 1b obtained the strongest standardized coefficient by means of a positive relation to the dependent variable ( $\beta = 1.25$ ;  $\rho < .01$ ) as well as its significant influence toward all other independent variables. Similar previous claims, the importance of the construct of attitude is further verified obtained in the positive indirect effect toward the subjective norm ( $\beta = .52$ ;  $\rho < .01$ ) in which further strengthen the make-up cosmetic buying behavior in terms of the TRA. Additionally, the construct of attitude gained empirical evidence in the relationship toward the consumer innovativeness ( $\beta = .59$ ;  $\rho < .01$ ). Likewise, the significant effect of consumer innovativeness to the behavior ( $\beta = .62$ ;  $\rho < .01$ ) is yet obtained and thus further supports Hypothesis 3b. With reference to the negative impact of the subjective norm, the standardized coefficient between consumer innovativeness and subjective norm is positively correlated ( $\beta = .12$ ;  $\rho < .01$ ).

**Figure 5.4** The Result of the Hypothesized Model of Make-up Cosmetics



Note. Figure 5.4 includes standardized parameter estimates ( $\beta$ ) for each relationship examined. Attitude (AT1, AT2, AT3, AT4), Subjective Norm (SN1, SN2), Consumer Innovativeness (CI3, CI4), Make-up Cosmetic Product Purchasing Intention (INT1, INT2).  $**p < .01$ .



## 5.2 DISCUSSION OF FINDINGS

The increasing buying power of cosmetic consumers (Kumar *et al.*, 2006; Jamal *et al.*, 2012) is a result of more advanced skincare cosmetic products as well as their constantly re-defined make-up cosmetic products. Yet the cosmetic buying behavior will remain interesting as long as people wish to beautify themselves. This being the case, it is more than essential to examine the factors in which influence consumers' intention to purchase new cosmetic products. This study intended, in the first place, to examine the potential influences of consumer innovativeness in conjunction with attitude and subjective norm on new cosmetic purchasing intentions. In particular, this research investigates the cosmetic buying behavior of female consumers in Sweden, based on two separate models distinguishing skincare and make-up cosmetic products.

To start with, consumers' had a positive attitude toward both skincare cosmetics and make-up cosmetics. The research provides important empirical evidence in that the finding verifies the significance of consumer's positive attitude toward the subject when predicting or explaining a certain activity. As predicted in the proposed framework, the more favorable attitudes toward the behavior the consumers had, the more likely was she to purchase new cosmetic products. Plenty evidence suggests that consumers are more inclined to undertake a particular behavior when they are favorable towards undertaking it. The link between the construct of attitude and intention to purchase has widely been claimed in a variety of product categories and cultures, including cosmetic products such as personal skincare products (e.g., Sukato & Elsey, 2009; Kim & Chung, 2011), shampoo (e.g., Zbib *et al.*, 2010; Kim & Chung, 2011). Overall, the study participants had a positive attitude toward both skincare and make-up cosmetic, asserting that attitude is a significant determinant of purchase intention in the context of new cosmetic products. With reference to the previous discussions, these findings are supported by the literature and consistent with the theory. The results for attitude toward skincare cosmetics are consistent with Kim and Chung's (2011) findings, supporting the significance of consumer's attitude toward such personal care products. In addition, based on similar items for measuring attitude, the four items demonstrated even more reliable values for this research. Thus, the positive impact of attitude on cosmetic consumers' intention to purchase new make-up cosmetic products further strengthens this connection between attitude and purchase intention.

Subjective Norm, on the other hand, was as opposed to previous claims by means of a negative effect. A numerous empirical research suggests that individuals often sense pressure toward performing a particular activity, which on the other hand is determined by the significant others. Variety of studies has confirmed the positive relationship between subjective norm and intention, including skincare activities (e.g., Hillhouse *et al.*, 2000; Souiden & Diagne, 2009) as well as make-up cosmetics (Guthrie *et al.*, 2008; Vanessa *et al.*, 2010). In addition, based on the notion that perceptions of subjective norm are more important in women's decision-making process, the findings regarding the female cosmetic consumers of this study did not correspond to Venkatesh *et al.* (2000).

On the other hand, the negative impact of subjective norm was similar to a research about skincare management, by Myers and Horswill (2006). Perceptions of subjective norm did not only indicate a negative impact for cosmetic consumers' intention to purchase new cosmetic products (cf. Kim & Chung, 2011; Sukato & Elsey, 2009) but more noteworthy is its rather insignificant factor in determining the cosmetic buying behavior.

However, the construct of attitude and subjective norm were considered together since, for any specific behavioral intention in terms of simultaneously influencing the human behavior, these findings are only partially consistent with the literature. Based on this argument, Davies *et al.* (2002) noted that subjective norm is the weakest determinants of predicting behavioral intentions in the TRA (see also Sheppard *et al.*, 1988; Lee *et al.*, 2009). Relating to the TRA, several other research (e.g., Roberto, Meyer, Boster & Roberto, 2003; Belleau *et al.*, 2007) have also noted this construct as an insignificant predictor of intention in the TRA, which emphasis the results for the current research. Yet, the fact that the construct of attitude indicates the highest influence on cosmetic consumer intention to purchase new skincare and make-up cosmetic products, and also since perceptions of subjective norms reported a strong negative impact on purchase intentions of this research perhaps suggests something more. What is obvious is that there is conflicting evidence composting the contrast, denoting attitude as a significant determinant in cosmetic consumers' purchase intention whereas a negative correlation between subjective norm purchase intentions. Thus the result requires more considerations.

(1) Kim and Chung (2011) found that both attitude and subjective norm had a positive influence on consumers' intention to purchase skincare products, it should be noted that their research focused on organic products. Their research was undertaken to examine US consumers' purchase intention based on the Theory of Planned Behavior (TPB) whereby the theory on green consumer behavior is according to their research rather robust, and yet confirmed by others (See also Bamberg, 2003; Chan & Lau, 2001; Kalafatis, Pollard, East & Tsogas, 1999). Closely related, Sheppard, Kennedy and Mackey (2006) verify this, as they found that skincare behavior was positively correlated with the occurrence of pressure scores by means of the TPA. More interestingly, another study of personal sun protection care by Myers and Horswill (2006) confirmed that perceptions of subjective norm towards to use sun protection products is an insignificant predictor of intention in the TRA, which emphasis the results for the current research. To further develop this notion Lee *et al.* (2007) counteract by arguing that individuals' rational behavior are generally more influenced by her attitude toward the behavior than from perceptions of social norm to perform the behavior. It is likely that the relationship between subjective norm and purchase intention is partly related to the individuals' value system but also on the cultural settings of the specific study experiment.

(2) Alternative suggestions might support the notion stated in Lee and Kacen (2008) that the normative social influences are somehow distinct in terms of the susceptibility to cultural influences. In fact, normative social influences are more strongly affected by consumers'

purchasing intentions in collectivist cultures, compared to individualistic cultures. Besides, individuals' behavior is influenced by their own cultures (e.g., Hofstede, 2001). With regard to cosmetics and consumer behavior, Weber and de Villebonne (2002) as well as Souiden and Diagne (2009) focused on cross-cultural differences and nonetheless both studies argued for how beliefs dictate consumers' buying behavior. Since Sweden belongs to an individualistic culture (see Hofstede, 1984), Lee and Kacen (2008) furthermore cited from Triandis (1995) that individuals in this particular culture see themselves as autonomous and independent of collectives. As opposed to collectivists, people in individualistic cultures are more prone to be motivated by their own preferences and need rather than by norms and duties imposed by others. Similarly to the previous discussed research on the construct of individualism, Yang and Jolly (2009) found that the influences of subjective norms on behavioral intention are more predominant in societies with strong group conformity pressures. That is, people from more individualistic cultures give not only priority to personal goals and by having independent attitudes and opinions from others (see Triandis, 1994) but also the perceptions of people important to the individuals' as well as perceptions of people influencing her behavior may vary in response to cultural differences. In this sense, Sheppard and colleagues (1988) argue that "it also provides a relatively simple basis for identifying where and how to target consumers' behavioral change attempts" (p. 325) whereas, the cosmetic consumer of this research would most likely hold less diagnostic value for the perceptions of subjective norms.

- (3) Based on how the TRA model appear to predict consumers intention and behavior well in some researches, these findings could be explained in accordance to Taylor and Todd's (1995) argument that normative influences are not important motivators in mature scheme. Their research postulated that normative pressures are only significant in early stages of a system. Likewise, most respondents in the group experiment showed to be experienced with cosmetics in terms of the high duration of cosmetic usage. Furthermore, as skincare and make-up cosmetic products are attributed in the female life, the unique nature of consumer behavior may have important implications on these findings. Kim and Chung (2011) focused on organic personal care product whereas Sheppard and colleagues (2006) studied skincare behavior after the occurrence of an injury, in which might follow the idea of a rather maturing pattern when explaining human behavior. In this way, the current results are in accordance to Myers and Horswill's (2006) findings about sun protection care behavior, which is not something new to the individual and, may counteract similar suggestions for the skincare and make-up behavior. Particularly, since personal sun care protection product are not something new to the individual. With regards to the TRA, Belleau and colleagues (2007) found similar inconsistent findings associated to a positive relationship between attitude and intention and a negative relationship between subjective norm and intention. It was hypothesized that the Generation Y had a positive impact on purchase intention of fashion products made from emu leather items, which, they express as "because the product of interest is relatively new to the market, is not a well-

known fashion item, has received little or no promotion to consumers. For those reasons, respondents may not have felt any pressure to purchase it" (Belleau *et al.*, 2007, p. 254).

So, perhaps, the specific group experiment should be considered. To counteract, the younger consumer profile revealed a valid sample of the cosmetic consumer and thus for the sake of the research purpose. Prior studies (e.g., Auty & Elliott, 1998; Xie & Singh, 2007) pointed out that the younger consumer profile is an emerging age segment, and as stated by Kozar (2012), the younger segment is especially important to analyze since younger women feel underserved in today's cosmetic marketplace. Young adults nowadays have economical autonomy as well as the possibility to make independent decisions (Arnett, 2000). Belleau *et al.* (2007) elaborated the argument of Bush Martin and Bush (2004) and Syrett and Kammiman (2004), young adults have grown up in an environment described as a consumer-oriented society in that consumption is a leisure-time activity. Thus since these young consumers are "technologically savvy and sophisticated may explain their lack of reliance on peer referent" (Belleau *et al.*, 2007, p. 254) in which some combination thereof whereby the cosmetic buying behavior in this research is inherently unique in nature.

Finally, the importance of consumer innovativeness in the context of new product adoption (Midgley & Dowling, 1978; Agarwal & Parsad, 1998; Goldsmith & Flynn, 1992; Wood & Swait, 2002; Im *et al.*, 2003; Bartels & Reinders, 2011) is partly in accord to previous claims. The results obtained support the positive influence of this variable on cosmetic consumers' intention to purchase new cosmetic products, consistent with the results of other studies (e.g., Hirunyawipada & Paswan, 2006; Jordaan & Simpson, 2006; Lee *et al.*, 2007; Crespo & Rodríguez, 2008; Bartels & Reinders, 2011). Most theorists highlight the construct of consumer innovativeness as the key antecedents of new product adoption, purchasing intentions as well as technology acceptance. However, the findings of the main effect model obtained rather minor influences on cosmetic consumer's purchasing intentions, in terms of how the cosmetic consumers of this study were somewhat little innovative. As a result of the differences between purchasing intentions and actual behavior, findings from the main effect model did not fully support Im and colleagues (2003), in that the consumer innovativeness is significantly associated with new product adoption. On the other hand, the construct of consumer innovativeness was statistically positive and yet significant, as it showed to be a predominant indicator in predicting and explaining the new cosmetic purchasing intentions. Thus the cosmetic buying behavior in this research focuses on the domain-specific innovativeness; the study group experiment may not have made the connection between intention to purchase and the actual adoption. Likewise, it is important to bear in mind that the research is dealing with consumer innovativeness in the context of cosmetic buying behavior that have not been studied before.

A further point is according to the effect of the summary model, which provides empirical support for the construct of consumer innovativeness as an important and significant predictor of cosmetic buying behavior. Because consumer innovativeness in the main effect model demonstrated a rather minor effect on new cosmetic purchasing intentions, the findings from the full effect model

recognized the construct as important and significant in the context of cosmetic buying behavior. One reason that counteracts the consideration might be due to the extended version of the dependent variable. In support of Szanja (1996), the use of the objective measure could be appropriate in this particular context. The effect of the full model with interactions between the independent variables implies to Thomson *et al.* (1991) notion of including both measures.

Several other studies (e.g., Goldsmith & Flynn, 1992; Wood & Swait, 2002; Crespo & Rodríguez, 2008; Fang *et al.*, 2009; Bartels & Reinders, 2011) have identified attitude and other people's influences as important variables in predicting innovation behavior. Crespo and Rodríguez (2008) hypothesized the impact of consumer innovativeness on attitude as well as on purchase intention in the context of e-commerce behavior, and found that consumer innovativeness is only significant in the first purchase. In addition, the research showed no significance in the relationship between innovativeness and attitude, which, in one hand is consistent with findings of this study. Though it was suggested for further research, mainly within high technology products. On the other hand, the effect of the full model obtained the opposite relationship, in terms of a positive association between attitudes toward consumer innovativeness. This would further support previous considerations made by Taylor and Todd (1995) about the insignificant effects of normative influences in a mature scheme. Likewise, as skincare and make-up cosmetic products are attributed in the female life, the unique nature of consumer behavior may have important implications on these findings. Whilst the constructs of subjective norm depicted a negative impact on purchasing intention, Crespo and Rodríguez (2008) suggested a greater influence of subjective norm where products are particularly associated with trends and art pieces. Regarding make-up, the construct of subjective norm did not have any effects on other independent variables. The lack of influence on subjective norm rather emphasizes the importance of cosmetic consumers' attitude toward the cosmetic buying behavior to further verify previous considerations that, female consumers' may use the referent group to contribute to the features of attractiveness (Guthrie *et al.*, 2008; Vanessa *et al.*, 2009). The social comparison processes is a way to further motivate consumer behaviors (Joy & Venkatesh, 1994; Etcoff, 1999; Perrett *et al.*, 1998). Thus, in the case of skincare, the results obtained a positive correlation between subjective norm and attitude. It implies that cosmetic consumers' positive attitude toward skincare cosmetics could be motivated by the reference groups' opinions and wishes, further verifying the importance of others to the individual consumer rather than to the purchasing intentions. Perceptions of subjective norm do not only emphasize the importance of cosmetic consumers' positive attitude toward the behavior, it also implies to the individual innovativeness. Finally, with reference to the factor interactions obtained between the independent variables, consumer innovativeness is yet an important driver of consumer's new product adoption behavior, in support of Im and colleagues (2003).

## CONCLUSION AND IMPLICATIONS 6

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The bulk of the findings are dedicated to the contributions this study has made to the research conclusions and the main implications of the obtained relevance for the management of businesses as well as the future research avenues. This study intended, in the first place, to investigate the effect of the key antecedents on cosmetic buying behavior. Justified by the notion that the key to success of new products is to identify potential customers, this study integrates consumer innovativeness with attitude and subjective norm into a comprehensive and empirically verified model. This research thereby fills a significant gap in the understanding of new cosmetic purchasing intentions. Integral to aforementioned findings is the cumulative building of knowledge about the new cosmetic purchasing intentions whereby thereof three main contributions can be highlighted.

To start with, the findings of this study contribute to cosmetic buying behavior by applying consumer innovativeness in the cosmetic field in its initial attempt to better explain and predict new cosmetic purchasing intentions. The empirical evidence obtained in the developed research that reinforces consumer innovativeness as an important driver of new cosmetic purchasing intentions. This is consistent with the results of other studies (e.g., Hirunyawipada & Paswan, 2006; Jordaan & Simpson, 2006; Lee *et al.*, 2007; Crespo & Rodríguez, 2008; Bartels & Reinders, 2011). Thus, beyond approaching consumer innovativeness from a domain specific context of new cosmetic product interest (cf. Tellis *et al.*, 2009) according to Goldsmith and Hofacker (1991), the findings highlight consumer innovativeness as the key antecedents of new product adoption, in accord to most theorists (e.g., Midgley & Dowling, 1978; Agarwal & Parsad, 1998; Goldsmith & Flynn, 1992; Wood & Swait, 2002; Im *et al.*, 2003; Bartels & Reinders, 2011). In essence, to the extent that consumer innovativeness is enhanced lies on the simultaneous investigation of this particular set of explanatory influential drivers of the cosmetic buying behavior.

Moreover, cosmetic consumers' positive attitude recognized as the strongest influence on purchase intentions confirms prior research (e.g., Lee *et al.*, 2007; Crespo & Rodríguez, 2008; Belleau *et al.*, 2007; Fang *et al.*, 2009; Sukato & Elsey, 2009; Zbib *et al.*, 2010; Kim & Chung, 2011). The findings show that cosmetic consumers' positively evaluate the consequences derived from making a purchasing decision constitutes a basic condition for consumers' buying behavior. In contrast, although the lack of subjective norm seems to be consistent with Myers and Horswill's (2006) research about skincare behavior, it is yet conflicting with previous research in the context of cosmetic behavior and intention (e.g., Hillhouse *et al.*, 2000; Guthrie *et al.*, 2008; Souiden & Diagne, 2009; Vanessa *et al.*, 2010; Kim & Chung, 2011). On the other hand, with respect to the Theory of Reasoned Action, the negative effect of subjective norm on purchase intentions is consistent with the results of other studies (e.g., Roberto *et al.*, 2003; Belleau *et al.*, 2007). In this sense, this finding reminiscent the importance of other peoples influence on the cosmetic consumers cognitive structure, as she may use social comparison processes to motivate the consumer behavior (Joy & Venkatesh, 1994; Perrett *et al.*, 1998; Etcoff, 1999).

Conclusively, it is worth mentioning the importance of a more integrated and composite approach toward new cosmetic purchasing intentions, in contrast to previous approaches investigating bivariate relationships between each construct separately (e.g., Guthrie *et al.*, 2008; Souiden & Diagne, 2009; Vanessa *et al.*, 2010). Inasmuch as the proposed factors included in the hypothesized model have been analyzed in other studies (e.g., Nysveen *et al.*, 2005; Pavlou & Flygeson, 2006; Lee *et al.*, 2007; Crespo & Rodríguez, 2008; Fang *et al.*, 2009), there is very little evidence that equally investigates these particular drivers and therefore consider the interrelation and overlapping existing among them. The non-significance of some casual relationships (i.e. perceptions of subjective norm on purchase intention) might have been caused by the inclusion of other variables not considered simultaneously in aforementioned research. Likewise, relating to the internalization effect, consumer innovativeness is yet an important driver of consumer's new product adoption behavior, in support of Im and colleagues (2003).

The relevance of consumer innovativeness for the management of businesses, due to its importance in the understanding of new cosmetic purchasing intentions has been confirmed by the findings that the greater effect on the overall evaluation would stimulate consumers' innovative behavior. So, although the initial purchase might be affected by the individual tendency to try new cosmetic products, marketing strategies should enhance consumer familiarizations of cosmetic prospects. However, the new cosmetic product does not necessarily have to be useful, but rather appropriate in a certain specific context that would intrigue the consumer toward the new cosmetic purchasing intentions. In this sense, consumers' positive attitude should not be taken for granted. Managers should pay attention that it is rather challenging to create positive attitudes in the broad and non-specific market, where success is more likely when offering consumers to personalize the new product for themselves. Consequently, marketing strategies should not exclusively be restricted to potential customers in the first place. Given the widespread of incorporating new digital tools such as m-commerce and mobile marketing (e.g., Clinique Forecast mobile app, My L'Oréal Mirror iPhone app), some communications campaigns should be targeted to other people that may somehow influence cosmetic consumer attitude (as the influence of subjective norm on attitude toward skincare cosmetics), or even people relevant to potential customers (as the influence of attitude toward make-up cosmetics on others behavior). In order to further increase the positive opinions via indirect mass media communication techniques, effective marketing strategies would be to emphasize new product features (e.g., ingredients, quality, textures, functions, packaging). From a managerial point of view, these material objects play an important role when to guarantee the future development of new skincare or new cosmetic products. Because the more familiar the consumers get with new product, features the higher tendency of purchase intentions associated with more and more innovative behaviors.

To further shed lights on the importance of new cosmetic purchasing intentions, it would be interesting to obtain future research avenues and to compare their approach to consumer

innovativeness as well as attitude and subjective norm with this current benchmark study. At another level, however, despite the systematic design of the experiment followed, may provide insights into two important cosmetic product category segments, alien to whether the findings from this research would be similar in other contexts. In this sense, limitations may affect the ability to generalize findings, and must therefore be taken into account prior any further research. Another limitation is affected by the way the empirical data was collected in a cross-sectional manner. Consequently, the research design may lack the internal validity (Bryman & Bell, 2011) as the posited considerations are related at one point in time. While the style of research allowed gaining insights on more than one occasion, as such longitudinal studies may correspond to an overall pattern of the cosmetic buying behavior. In this way, the next limitation is affected by resource restrictions concerning the relatively small sample size, in which was a consequence of the time and costs involved of the data collection process. Considering the lack of similar studies, it further presents a promising research opportunity.

Another future research avenue would be to test the cross-cultural stability of the specific culture and experience drawn from the current research. Given that the specific behavior may vary across cultures, further research is needed to address the aspects to which the different perceptions that influence the interplay of consumer innovativeness on new cosmetic purchasing intentions. Further research triggered by the findings proposed could include specific consumer groups as well as more cosmetic products are warranted. In addition to replicating findings from the current research, it is worthwhile to investigate fragrances since it seem be to following the trend of incorporating radical innovations, which might be even more significance in the case of consumer innovativeness on purchase intention. Specifically, it would be interesting to conduct the same research in other mature markets for comparison purposes. Due to how the major players are predominating the competitive market, it would therefore be worthwhile to explore the relationship between brands and purchase intentions. What is the effect of brands on cosmetic buying behavior? And, how does the subsequent relationship between consumer innovativeness and cosmetic brands influence other drivers as well as new cosmetic purchasing intentions?





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## APPENDIX 1

### EUROMONITOR INTERNATIONAL – BEAUTY AND PERSONAL CARE MARKET SIZES IN RETAIL VALUE AND CURRENT SALES

#### Market Sizes in Local Currency

Categories	Geographies	2006	2007	2008	2009	2010	2011
PLN Per Capita	Poland	262,7	276,0	295,8	314,2	328,4	338,9
C\$ Per Capita	Canada	227,8	236,5	242,3	244,8	250,5	259,3
US\$ Per Capita	USA	197,0	201,2	199,4	194,2	196,4	202,3
€ Per Capita	Austria	161,5	166,3	170,1	173,0	178,6	184,3
€ Per Capita	Belgium	168,9	174,0	179,5	181,2	182,1	182,8
DKr Per Capita	Denmark	1 440,5	1 518,3	1 569,2	1 571,4	1 586,6	1 606,0
€ Per Capita	Finland	166,8	175,4	174,4	176,7	180,0	182,6
€ Per Capita	France	190,5	193,2	193,0	191,5	193,4	194,5
€ Per Capita	Germany	147,0	151,8	155,6	159,9	163,8	169,1
€ Per Capita	Greece	132,6	138,8	140,8	137,4	125,2	109,6
€ Per Capita	Ireland	177,4	182,9	185,2	184,0	183,6	184,0
€ Per Capita	Italy	149,2	152,1	152,6	152,4	152,0	151,5
€ Per Capita	Netherlands	171,6	178,4	188,2	192,9	198,2	204,4
NOK Per Capita	Norway	2 080,2	2 195,0	2 258,1	2 312,8	2 328,9	2 372,3
€ Per Capita	Portugal	150,4	154,9	158,0	161,0	161,7	155,0
€ Per Capita	Spain	168,8	175,7	177,6	174,1	172,0	169,1
SEK Per Capita	Sweden	1 580,2	1 647,7	1 673,9	1 646,3	1 660,2	1 687,2
CHF Per Capita	Switzerland	311,6	325,5	325,8	322,0	322,4	322,5
TL Per Capita	Turkey	52,7	57,6	61,8	67,0	73,6	81,5
£ Per Capita	United Kingdom	144,0	149,7	153,4	157,7	163,2	169,3
CZK Per Capita	Czech Republic	2 176,5	2 296,8	2 396,1	2 332,6	2 301,4	2 323,7

Research sources: Euromonitor International Passport – Beauty and Personal Care  
Euromonitor from trade sources/national statistics: *Market Sizes, Historic/Forecast, Retail Value RSP, Current Prices*

(date exported: 27/07/2012 07:11:23)

### Market Sizes in US\$ Fixed Currency (Year-On-Year Exchange)

Categories	Geographies	2006	2007	2008	2009	2010	2011
US\$ Per Capita	Poland	84,7	99,7	122,8	100,7	108,9	120,4
US\$ Per Capita	Canada	200,8	220,2	227,1	214,1	243,2	266,9
US\$ Per Capita	USA	197,0	201,2	199,4	194,2	196,4	202,3
US\$ Per Capita	Austria	202,6	227,6	249,0	240,5	236,6	259,9
US\$ Per Capita	Belgium	211,9	238,1	262,7	251,7	241,1	257,8
US\$ Per Capita	Denmark	242,4	279,0	307,7	293,1	282,1	304,6
US\$ Per Capita	Finland	209,3	240,1	255,3	245,6	238,4	257,5
US\$ Per Capita	France	239,0	264,4	282,4	266,2	256,2	274,3
US\$ Per Capita	Germany	184,4	207,8	227,6	222,2	217,0	238,5
US\$ Per Capita	Greece	166,3	189,9	206,0	190,9	165,7	154,6
US\$ Per Capita	Ireland	222,6	250,3	271,0	255,6	243,1	259,5
US\$ Per Capita	Italy	187,2	208,2	223,4	211,7	201,3	213,7
US\$ Per Capita	Netherlands	215,3	244,1	275,5	268,1	262,4	288,2
US\$ Per Capita	Norway	324,4	374,5	400,4	367,8	385,3	429,0
US\$ Per Capita	Portugal	188,7	212,1	231,2	223,7	214,1	218,6
US\$ Per Capita	Spain	211,8	240,5	259,9	241,9	227,7	238,5
US\$ Per Capita	Sweden	214,2	243,8	254,0	215,1	230,3	270,9
US\$ Per Capita	Switzerland	248,5	271,1	300,8	296,3	309,1	378,7
US\$ Per Capita	Turkey	36,9	44,2	47,5	43,2	49,0	49,5
US\$ Per Capita	United Kingdom	265,0	299,5	281,9	245,6	252,2	274,0
US\$ Per Capita	Czech Republic	96,3	113,2	140,4	122,4	120,5	135,1

Research sources: Euromonitor International Passport – Beauty and Personal Care

Euromonitor from trade sources/national statistics: *Market Sizes, Historic/Forecast, Retail Value RSP, US\$ per Capita, Current Prices, Year-on-Year Exchange Rates*

(date exported: 27/07/2012 07:13:59)

### QUESTIONNAIRE ITEMS COSMETIC BUYING BEHAVIOR OF FEMALE CONSUMERS IN SWEDEN

#### **Part I: ABOUT YOURSELF – COSMETIC INFORMATION**

How long have you been using cosmetics?  
How many cosmetic products do you use a day?  
How often do you buy cosmetics?  
On average, how much do you tend to spend on cosmetics a month?

#### **Part II: ABOUT SKINCARE COSMETICS**

Using skincare products is a good idea (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Using skincare products is wise (Taylor & Todd, 1995).  
I like the idea of using skincare products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
To me, skincare products are pleasurable (Taylor & Todd, 1995).  
People who are important to me think that I should use skincare products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Most people who influence my behavior think that I should use skincare products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Generally, I spend little time exploring how to use new skincare product (Agarwal & Prasad, 1998a).  
In general, I am hesitant to try out new skincare products (Agarwal & Prasad, 1998b).  
Among my peers, I am usually the first to try out new skincare products (Agarwal & Prasad, 1998a).  
I like to experiment with new skincare products (Agarwal & Prasad, 1998a).  
I intend to buy new skincare products in the future (Taylor & Todd, 1995; Agarwal & Prasad, 1998b; Venkatesh & Davis, 2000; Venkatesh *et al.*, 2003).

#### **Part III: ABOUT MAKE-UP COSMETICS**

Using make-up products is a good idea (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Using make-up products is wise (Taylor & Todd, 1995).  
I like the idea of using make-up products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
To me, make-up products are pleasurable (Taylor & Todd, 1995).  
People who are important to me think that I should use make-up products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Most people who influence my behavior think that I should use make-up products (Taylor & Todd, 1995; Venkatesh *et al.*, 2003).  
Generally, I spend little time exploring how to use new make-up product (Agarwal & Prasad, 1998a).  
In general, I am hesitant to try out new make-up products (Agarwal & Prasad, 1998b).  
Among my peers, I am usually the first to try out new make-up products (Agarwal & Prasad, 1998a).  
I like to experiment with new make-up products (Agarwal & Prasad, 1998a).  
I intend to buy new make-up products in the future (Taylor & Todd, 1995; Agarwal & Prasad, 1998b; Venkatesh & Davis, 2000; Venkatesh *et al.*, 2003).

#### **Part IV: ABOUT YOURSELF – PERSONAL INFORMATION**

Your age?  
Your highest education?  
Your marital status?  
Your current place of residence?

## ELECTRONIC SURVEY

<http://www.surveymonkey.com/s/3JNVV93>

<http://www.surveymonkey.com/s/GD6MPWZ>

Introduction (p. 1)

Swedish women's cosmetic buying behavior II Avsluta undersökningen

**COSMETIC BUYING BEHAVIOR OF FEMALE CONSUMERS IN SWEDEN**

This survey is a brainstorming exercise aimed at inviting your views on various actions associated with cosmetic buying behavior. It may take less than 10 minutes to complete the questionnaire. Your participation in this research is completely voluntary and the information gathered will only be used in a thesis research. Your responses are anonymous, which means that it will not be possible to identify or link any responses to you. However, if you have questions at any time about the survey or the procedures, you may contact me by email at the email address specified below.

THANK YOU VERY MUCH FOR YOUR TIME AND SUPPORT!

Jeanette Nikdavoodi  
jeanette.nikdavoodi.240@student.lu.se

Nästa

Driven av SurveyMonkey  
Skapa din egen webbaserade enkät nu!

Page I (p. 2)

Swedish women's cosmetic buying behavior Avsluta undersökningen

**1. PART 1: GENERAL INFORMATION ABOUT YOUR COSMETIC (referring to skincare\* and make-up\*\* products) BUYING BEHAVIOR**

\*Skincare products: facial moisturisers (day creams, night creams, eye creams), nourishers/anti-agers, skin-whitening products, treatment series, anti-blackhead creams, face masks, facial cleansers (liquid/cream/gel/bar cleansers and facial cleansing wipes), toners/ exfoliation, lip care.

\*\*Make-up products: foundations, concealers, blusher/bronzer, highlighter, powder, mascara, eye shadow, eye liners/pencils, eye make-up removers, lipstick, lip gloss, lip liners/pencils, nail varnishes, nail treatments/strengtheners, removers.

**1. How long have you been using cosmetics?**

- Less than 5 years
- 5 but not more than 10 years
- 10 but not more than 15 years
- 15 but not more than 20 years
- 20 but not more than 25 years
- 25 but not more than 30 years
- 30 but not more than 35 years
- 35 but not more than 40 years
- 40 but not more than 45 years
- 45 but not more than 50 years
- More than 50 years

**2. How many cosmetic products (referring to skincare and make-up) do you use a day?**

- Less than 4 products
- 4 but less than 8 products
- 8 but less than 12 products
- 12 but less than 16 products
- 16 but less than 20 products
- More than 20 products

**3. How often do you buy cosmetics (referring to skincare and make-up)?**

- More than once a month
- About once a month
- About once every three months
- About once every six months
- About once a year
- Anytime

**4. On average, how much do you tend to spend on cosmetic products (referring to skincare and make-up) per month?**

(Kronor SEK/month)

Bakåt Nästa

Driven av SurveyMonkey  
Skapa din egen webbaserade enkät nu!

5. PART 2: SKINCARE - Please rate the response that best represents your agreement about skincare buying behavior with the following statements:

\* Skincare products: facial moisturisers (day creams, night creams, eye creams), nourishers/anti-agers, skin-whitening products, treatment series, anti-blackhead creams, face masks, facial cleansers (liquid/cream/gel/bar cleansers and facial cleansing wipes), toners/ exfoliation, lip care..

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Using skincare products is a good idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using skincare products is a wise idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the idea of using skincare products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. PART 3: MAKE-UP - Please rate the response that best represents your agreement about your make-up buying behavior with the following statements:

\*\* Make-up products: foundations, concealers, blusher/bronzer, highlighter, powder, mascara, eye shadow, eye liners/pencils, eye make-up removers, lipstick, lip gloss, lip liners/pencils, nail varnishes, nail treatments/strengtheners, nail polish removers..

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Using make-up products is a good idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using make-up products is a wise idea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the idea of using make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To me, make-up products are pleasurable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who are important to me would think that I should use make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most people who influence my behavior would think that I should use make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generally, I spend little time exploring how to use new make-up product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am hesitant to try out new make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Among my peers, I am usually the first to try out new make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to experiment with new make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'd rather choose a make-up brand that I usually buy, than try new make-up products from brands I am not confident in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I never buy make-up products I don't know anything about with the risk of making a mistake	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, I am confident that I make good choices when I buy new make-up products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm confident that I buy good make-up products for the money I pay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to buy new make-up products in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Bakåt Nästa

Driven av SurveyMonkey  
Skapa din egen webbaserade enkät nu!

7. PART 4: ABOUT YOURSELF - This section asks for some personal data which will help me classify your answers

7. Your age?

8. Your highest education?

9. Your Marital status?

10. Your Residential status?

Bakåt Klar

Driven av SurveyMonkey  
Skapa din egen webbaserade enkät nu!

7. Your age?

Below 15 years old

15 but less than 25

25 but less than 35

35 but less than 45

45 but less than 55

55 but less than 65

Over 65 years old

9. Your Marital status?

8. Your highest education?

Less than upper secondary school

Completed upper secondary school or equivalent

University and above

9. Your Marital status?

Single

Partner (living separately)

Partner (cohabiting)

Married

Divorced/separated

Widow

10. Your Residential status?

10. Your Residential status?

Metropolitan area (Stockholm, Göteborg, Malmö)

Urban area (at least 200 inhabitants, but not the 3 largest cities)

Rural area (50-199 inhabitants)

Other (eg. abroad)

**COSMETIC BEHAVIOR OF FEMALE CONSUMERS IN SWEDEN**

This survey is a brainstorming exercise aimed at inviting your views on various actions associated with cosmetic buying behavior. It may take less than 10 minutes to complete the questionnaire. Your participation in this research is completely voluntary and the information gathered will only be used in a thesis research. Your responses are anonymous, which means that it will not be possible to identify or link any responses to you. However, if you have questions at any time about the survey or the procedures, you may contact me by email at the email address specified below.

THANK YOU VERY MUCH FOR YOUR TIME AND SUPPORT!

Jeanette Nikkavoodi  
[jeanette.nikkavoodi.240@student.lu.se](mailto:jeanette.nikkavoodi.240@student.lu.se)

**ABOUT YOURSELF**

This section asks for some personal data which will help me classify your answers

- 1 Your age?**
- Below 15 years old
  - 15 but less than 25
  - 25 but less than 35
  - 35 but less than 45
  - 45 but less than 55
  - 55 but less than 65
  - Over 65 years old
- 2 Your highest education?**
- Less than Upper secondary school
  - Upper secondary school or equivalent
  - University or above
- 3 Your marital status?**
- Single
  - Partner (living separately)
  - Partner (cohabiting)
  - Married
  - Divorced/Separated
  - Widow
- 4 Your current place of residence?**
- Metropolitan area (Stockholm, Göteborg, Malmö)
  - Urban area (other than the 3 largest cities above)
  - Rural
  - Other (Eg. abroad)
- 5 How long have you been using cosmetics (referring to facial skincare\* and make-up\*\*)?**
- Less than 5 years
  - 5 but less than 10 years
  - 10 but less than 15 years
  - 15 but less than 20 years
  - 20 but less than 25 years
  - 25 but less than 30 years
  - 30 but less than 35 years
  - 35 but less than 40 years
  - 40 but less than 45 years
  - 45 but less than 50 years
  - More than 50 years
- 6 How many cosmetic products do you use a day?**
- Less than 4 products
  - 4 but less than 8 products
  - 8 but less than 12 products
  - 12 but less than 16 products
  - 16 but less than 20 products
  - More than 20 products
- 7 How often do you buy cosmetics?**
- More than once a month
  - About once a month
  - About once every three months
  - About once every six months
  - About once a year
  - Anytime
- 8 On average, how much do you tend to spend on cosmetics a month?**
- ...approximately \_\_\_\_\_ Kr/month

\*Skincare products: facial moisturizers (day cream, night cream, eye cream), toners/tonic-aqts, skin-whitening products, treatment serums, anti-bacterial creams, face masks, facial cleansers (hand/foam/gel/foam cleanser and facial cleansing wipes), tonery/epilations, lip care.  
 \*\*Make-up products: foundations, concealers, make-up/bronzer, highlighter, powder, mascara, eye shadow, eye liner/eyeliner, eye make-up removers, lipstick, lip gloss, lip balm/lipstick, nail varnish, nail treatments/strengtheners, removers

**ABOUT YOUR SKINCARE\* BEHAVIOR**

Please rate the response that best represents your agreement (Strongly disagree – Disagree – Neutral – Agree – Strongly Agree) with the following statements

- Using skincare products is a good idea: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- Using skincare products is wise: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I like the idea of using skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- To me, skincare products are pleasurable: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- People who are important to me think that I should use skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- Most people who influence my behavior think that I should use skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- Generally, I spend little time exploring how to use new skincare product: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- In general, I am hesitant to try out new skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- Among my peers, I am usually the first to try out new skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I like to experiment with new skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I'd rather choose a skincare brand that I usually buy, than try new skincare products from brands I am not confident in: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I never buy new skincare products I don't know anything about with the risk of making a mistake: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- In general, I am confident that I make good choices when I buy new skincare products: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I'm confident that I buy skincare products for the money I pay: *Strongly disagree* 1 2 3 4 5 *Strongly agree*
- I intend to buy new skincare products in the future: *Strongly disagree* 1 2 3 4 5 *Strongly agree*

\*Skincare products: facial moisturizers (day cream, night cream, eye cream), toners/tonic-aqts, skin-whitening products, treatment serums, anti-bacterial creams, face masks, facial cleansers (hand/foam/gel/foam cleanser and facial cleansing wipes), tonery/epilations, lip care.  
 \*\*Make-up products: foundations, concealers, make-up/bronzer, highlighter, powder, eye shadow, eye liner/eyeliner, eye make-up removers, lipstick, lip gloss, lip balm/lipstick, nail varnish, nail treatments/strengtheners, removers

## APPENDIX 3

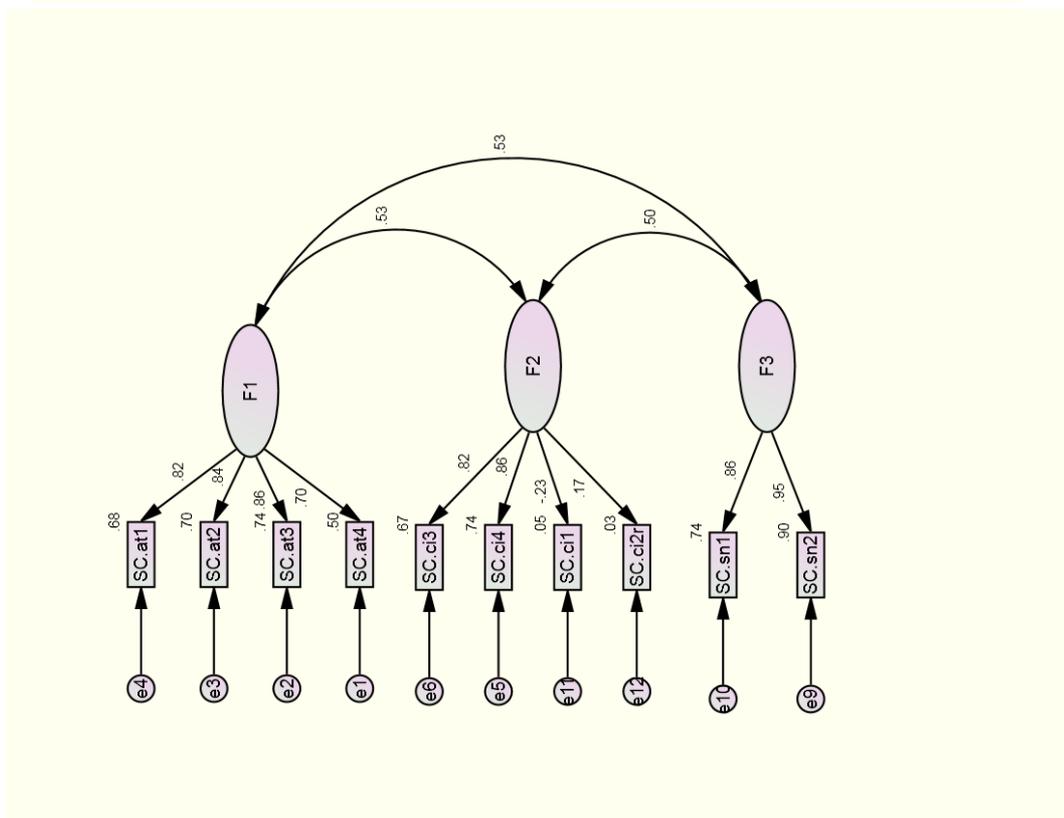
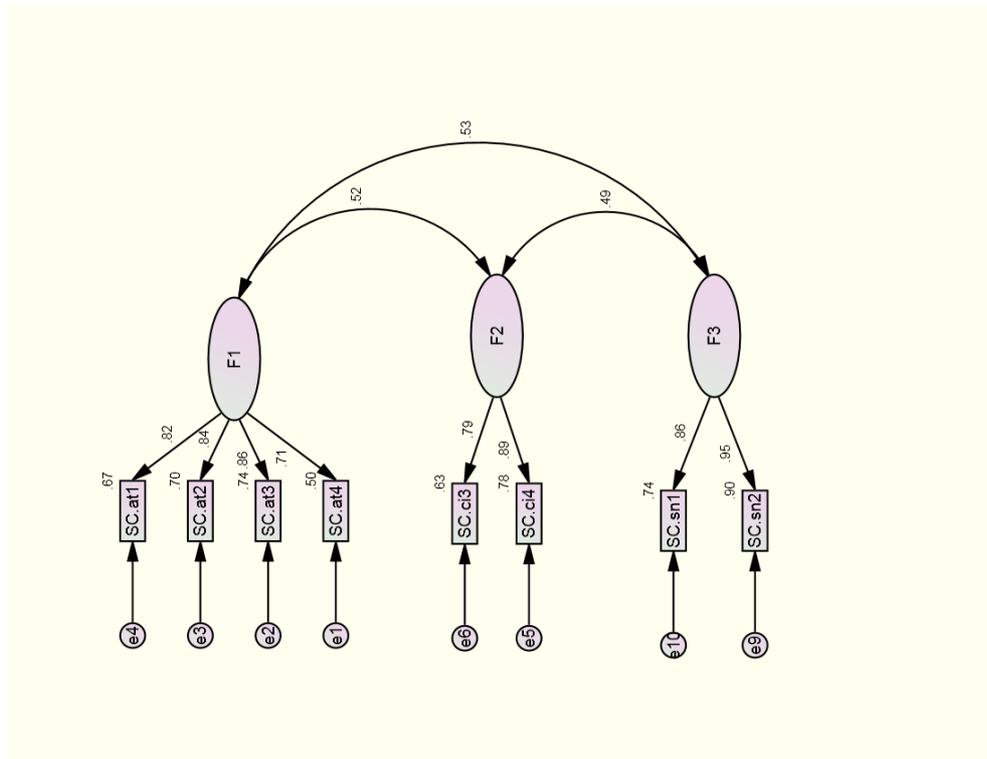
SPSS  
DEMOGRAPHIC VARIABLES

Demographic Variables	Quantity	Percent	Valid Percent	Cumulative Percent
<b>Age in Years</b>				
Below 15 years old	3	1,5	1,5	1,5
15 but less than 25	64	33,0	33,0	34,5
25 but less than 35	69	35,6	35,6	70,1
35 but less than 45	28	14,4	14,4	84,5
45 but less than 55	17	8,8	8,8	93,3
55 but less than 65	10	5,2	5,2	98,5
Over 65 years	3	1,5	1,5	<b>100,0</b>
<b>Total</b>	<b>194</b>	<b>100,0</b>	<b>100,0</b>	
<b>Highest Education</b>				
Less than Upper Secondary School	12	6,2	6,3	6,3
Upper Secondary School or equivalent	54	27,8	28,3	34,6
University or above	125	64,4	65,4	<b>100,0</b>
<i>Valid Data</i>	<i>191</i>	<i>98,5</i>	<b>100,0</b>	
<i>Missing data</i>	3	1,5		
<b>Total</b>	<b>194</b>	<b>100,0</b>		
<b>Marital Status</b>				
Single	64	33,0	33,5	33,5
Partner (living separately)	34	17,5	17,8	51,3
Partner (cohabiting)	42	21,6	22,0	73,3
Married	46	23,7	24,1	97,4
Divorced/Separated	3	1,5	1,6	99,0
Widow	2	1,0	1,0	<b>100,0</b>
<i>Valid Data</i>	<i>191</i>	<i>98,5</i>	<b>100,0</b>	
<i>Missing data</i>	3	1,5		
<b>Total</b>	<b>194</b>	<b>100,0</b>		
<b>Residential Status</b>				
Metropolitan area	85	43,8	44,0	44,0
Urban area	80	41,2	41,5	85,5
Rural	19	9,8	9,8	95,3
Other	9	4,6	4,7	<b>100,0</b>
<i>Valid Data</i>	<i>193</i>	<i>99,5</i>	<b>100,0</b>	
<i>Missing data</i>	1	0,5		
<b>Total</b>	<b>194</b>	<b>100,0</b>		



<b>Demographic Variables</b>	Quantity	Percent	Valid Percent	Cumulative Percent
<b>Duration of usage</b>				
Less than 5 years	20	10,3	10,4	10,4
5 but less than 10 years	44	22,7	22,9	33,3
10 but less than 15 years	60	30,9	31,3	64,6
15 but less than 20 years	23	11,9	12,0	76,6
20 but less than 25 years	20	10,3	10,4	87,0
25 but less than 30 years	5	2,6	2,6	89,6
30 but less than 35 years	8	4,1	4,2	93,8
35 but less than 40 years	4	2,1	2,1	95,8
40 but less than 45 years	5	2,6	2,6	98,4
45 but less than 50 years	1	0,5	0,5	99,0
More than 50 years	2	1,0	1,0	<b>100,0</b>
<i>Valid Data</i>	192	99,0	<b>100,0</b>	
<i>Missing Data</i>	2	1,0		
<b>Total</b>	<b>194</b>	<b>100,0</b>		
<b>Products per day</b>				
Less than 4 products	95	49,0	49,2	49,2
4 but less than 8 products	70	36,1	36,3	85,5
8 but less than 12 products	20	10,3	10,4	95,9
12 but less than 16 products	6	3,1	3,1	99,0
More than 20 products	2	1,0	1,0	<b>100,0</b>
<i>Valid Data</i>	193	99,5	<b>100,0</b>	
<i>Missing Data</i>	1	0,5		
<b>Total</b>	<b>194</b>	<b>100,0</b>		
<b>Purchase Frequency</b>				
More than once a month	10	5,2	5,2	5,2
About once a month	41	21,1	21,4	26,6
About once every three months	74	38,1	38,5	65,1
About once every six months	36	18,6	18,8	83,9
About once a year	24	12,4	12,5	96,4
Anytime	7	3,6	3,6	<b>100,0</b>
<i>Valid Data</i>	192	99,0	<b>100,0</b>	
<i>Missing Data</i>	2	1,0		
<b>Total</b>	<b>194</b>	<b>100,0</b>		

SKINCARE



**CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	27	59.64	17	.00	3.51
Saturated model	44	.00	0		
Independence model	8	909.40	36	.00	25.26

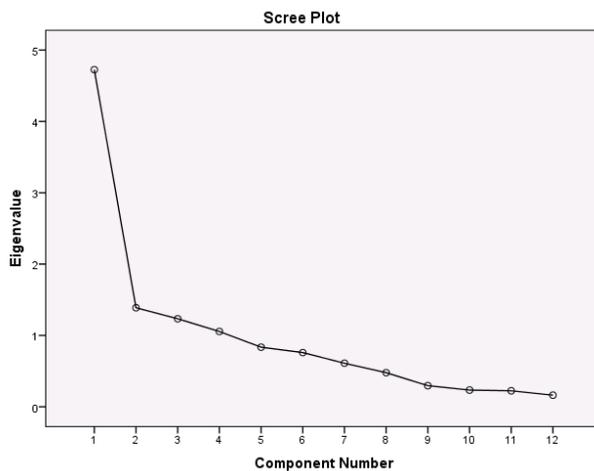
**Baseline Comparisons**

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.93	.86	.95	.90	.95
Saturated model	1.00		1.00		1.00
Independence model	.00	.00	.00	.00	.00

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.11	.08	.15	.00
Independence model	.35	.33	.37	.00

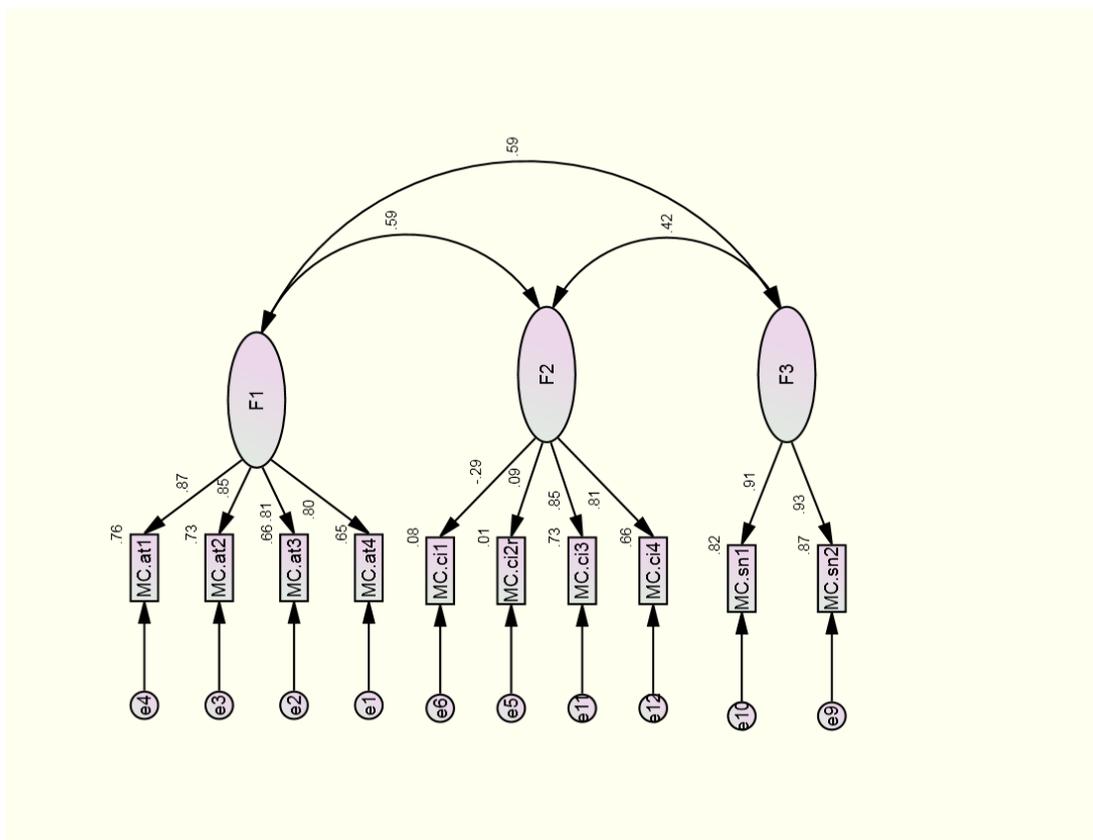
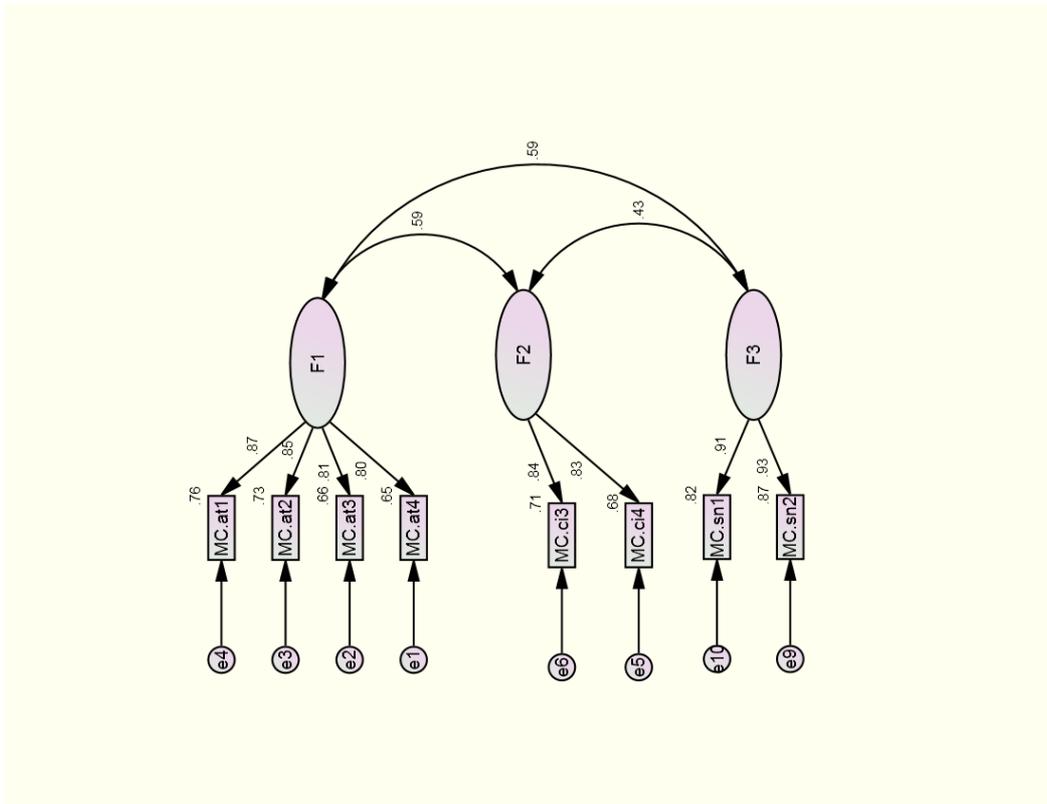
**Eigenvalue**



**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,805
Approx. Chi-Square		963,081
Bartlett's Test of Sphericity	df	66
	Sig.	,000

# MAKE-UP



**CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	27	81.12	17	.00	4.77
Saturated model	44	.00	0		
Independence model	8	1050.51	36	.00	29.18

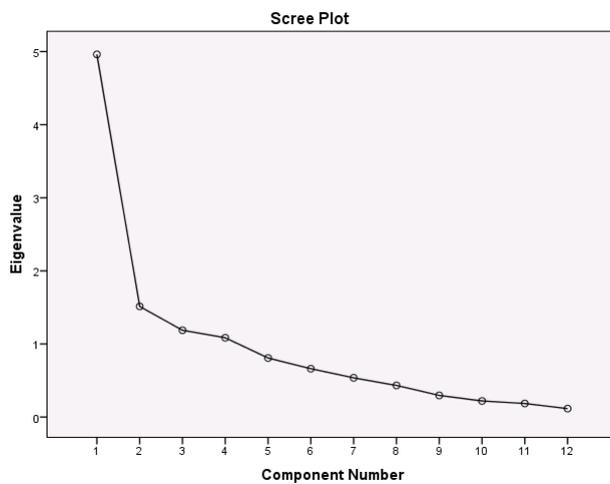
**Baseline Comparisons**

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.92	.84	.94	.87	.94
Saturated model	1.00		1.00		1.00
Independence model	.00	.00	.00	.00	.00

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.14	.11	.17	.00
Independence model	.38	.36	.40	.00

**Eigenvalue**



**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,785
Approx. Chi-Square		1146,994
Bartlett's Test of Sphericity	df	66
	Sig.	,000

## APPENDIX 5

SPSS  
RELIABILITY STATISTICS

### SKINCARE

Reliability Statistics	Cronbach's Alpha	N of Items
Attitude	.875	4
Subjective Norm	.897	2
Consumer Innovativeness	.820	2

### Attitude

#### Item Statistics

	Mean	Std. Deviation	N
SC.at1: Using skincare products is a good idea	3,92	1,018	188
SC.at2: Using skincare products is wise	3,68	1,083	188
SC.at3: I like the idea of using skincare products	3,90	,995	188
SC.at4: To me, skincare products are pleasurable	3,79	1,021	188

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SC.at1: Using skincare products is a good idea	11,37	7,207	,748	,833
SC.at2: Using skincare products is wise	11,61	6,870	,756	,830
SC.at3: I like the idea of using skincare products	11,39	7,094	,802	,813
SC.at4: To me, skincare products are pleasurable	11,49	7,738	,626	,880

**Reliability Statistics:** N of Items = 4, Cronbach's Alpha: .875

#### Case Processing Summary

		N	%
Cases	Valid	188	96,9
	Excluded <sup>a</sup>	6	3,1
	Total	194	100,0

a. Listwise deletion based on all variables in the procedure.

*Subjective Norm*

**Item Statistics**

	Mean	Std. Deviation	N
SC.sn1: People who are important to me think that I should use skincare products	2,73	1,242	190
SC.sn2: Most people who influence my behavior think that I should use skincare products	2,64	1,208	190

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SC.sn1: People who are important to me think that I should use skincare products	2,64	1,460	,813	.
SC.sn2: Most people who influence my behavior think that I should use skincare products	2,73	1,541	,813	.

**Reliability Statistics:** N of Items = 2, Cronbach's Alpha: .820

**Case Processing Summary**

		N	%
Cases	Valid	190	97,9
	Excluded <sup>a</sup>	4	2,1
	Total	194	100,0

a. Listwise deletion based on all variables in the procedure.

*Consumer innovativeness*

**Item Statistics**

	Mean	Std. Deviation	N
SC.ci3: Among my peers, I am usually the first to try out new skincare products	2,22	1,191	192
SC.ci4: I like to experiment with new skincare products	2,36	1,207	192

**Reliability Statistics:** N of Items = 3, Cronbach's Alpha: .533

**Case Processing Summary**

		N	%
Cases	Valid	192	99,0
	Excluded <sup>a</sup>	2	1,0
	Total	194	100,0

a. Listwise deletion based on all variables in the procedure.

## MAKE-UP

Reliability Statistics	Cronbach's Alpha	N of Items
Attitude	.901	4
Subjective Norm	.915	2
Consumer Innovativeness	.819	2

### Attitude

#### Item Statistics

	Mean	Std. Deviation	N
MC.at1: Using make-up products is a good idea	3,35	1,076	188
MC.at2: Using make-up products is wise	2,89	1,089	188
MC.at3: I like the idea of using make-up products	3,60	1,063	188
MC.at4: To me, make-up products are pleasurable	3,63	1,094	188

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MC.at1: Using make-up products is a good idea	10,12	8,275	,806	,863
MC.at2: Using make-up products is wise	10,57	8,343	,777	,873
MC.at3: I like the idea of using make-up products	9,87	8,533	,766	,877
MC.at4: To me, make-up products are pleasurable	9,84	8,363	,768	,877

**Reliability Statistics:** N of Items = 4, Cronbach's Alpha: .901

#### Case Processing Summary

		N	%
Cases	Valid	188	96,9
	Excluded <sup>a</sup>	6	3,1
	Total	194	100,0

a. Listwise deletion based on all variables in the procedure.



*Subjective Norm*

**Item Statistics**

	Mean	Std. Deviation	N
MC.sn1: People who are important to me think that I should use make-up products	2,50	1,196	191
MC.sn2: Most people who influence my behavior think that I should use make-up products	2,55	1,172	191

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MC.sn1: People who are important to me think that I should use make-up products	2,55	1,375	,844	.
MC.sn2: Most people who influence my behavior think that I should use make-up products	2,50	1,430	,844	.

**Reliability Statistics:** N of Items = 2, Cronbach's Alpha: .915

*Consumer innovativeness*

**Item Statistics**

	Mean	Std. Deviation	N
MC.ci3: Among my peers, I am usually the first to try out new make-up products	2,23	1,168	190
MC.ci4: I like to experiment with new make-up products	2,73	1,308	190

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MC.ci3: Among my peers, I am usually the first to try out new make-up products	2,74	1,729	,698	.
MC.ci4: I like to experiment with new make-up products	2,25	1,397	,698	.

**Reliability Statistics:** N of Items = 2, Cronbach's Alpha: .819

**Case Processing Summary**

		N	%
Cases	Valid	190	97,9
	Excluded <sup>a</sup>	4	2,1
	Total	194	100,0

a. Listwise deletion based on all variables in the procedure.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MC.ci1: Generally, I spend little time exploring how to use new make-up product	8.15	6.865	-.379	.547
MC.ci2: In general, I am hesitant to try out new make-up products	8.47	5.229	-.117	.222
MC.ci3: Among my peers, I am usually the first to try out new make-up products	9.40	2.986	.387	-.703 <sup>a</sup>
MC.ci4: I like to experiment with new make-up products	8.90	2.495	.416	-.933 <sup>a</sup>

**Reliability Statistics:** N of Items = 4, Cronbach's Alpha: .037

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MC.ci2: In general, I am hesitant to try out new make-up products	5.01	5.275	.054	.818
MC.ci3: Among my peers, I am usually the first to try out new make-up products	5.92	3.199	.538	.104
MC.ci4: I like to experiment with new make-up products	5.42	2.826	.527	.084

**Reliability Statistics:** N of Items = 3, Cronbach's Alpha: .533

## APPENDIX 6

SPSS  
CORRELATION RESULTS

### SKINCARE

**Correlations (int1)**

		AT.sc	SN.sc	Cl.sc	INT1.sc
AT.sc	Pearson Correlation	1	,482**	,452**	,476**
	Sig. (2-tailed)		,000	,000	,000
	N	193	193	193	191
SN.sc	Pearson Correlation	,482**	1	,402**	,227**
	Sig. (2-tailed)	,000		,000	,002
	N	193	194	194	192
Cl.sc	Pearson Correlation	,452**	,402**	1	,389**
	Sig. (2-tailed)	,000	,000		,000
	N	193	194	194	192
INT1.sc	Pearson Correlation	,476**	,227**	,389**	1
	Sig. (2-tailed)	,000	,002	,000	
	N	191	192	192	192

\*\* . Correlation is significant at the 0.01 level (2-tailed).

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future

**Correlations (int1+int2)**

		AT.sc	SN.sc	Cl.sc	INT1.sc + INT2
AT.sc	Pearson Correlation	1	,482**	,452**	,440**
	Sig. (2-tailed)		,000	,000	,000
	N	193	193	193	191
SN.sc	Pearson Correlation	,482**	1	,402**	,265**
	Sig. (2-tailed)	,000		,000	,000
	N	193	194	194	192
Cl.sc	Pearson Correlation	,452**	,402**	1	,451**
	Sig. (2-tailed)	,000	,000		,000
	N	193	194	194	192
INT1.sc + INT2	Pearson Correlation	,440**	,265**	,451**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	191	192	192	192

\*\* . Correlation is significant at the 0.01 level (2-tailed).

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future + INT2: Average cosmetic spending per month.

**MAKE-UP**

**Correlations (int1)**

		AT.mc	SN.mc	Cl.mc	INT1.mc
AT.mc	Pearson Correlation	1	,529**	,506**	,553**
	Sig. (2-tailed)		,000	,000	,000
	N	192	192	192	192
SN.mc	Pearson Correlation	,529**	1	,346**	,280**
	Sig. (2-tailed)	,000		,000	,000
	N	192	192	192	192
Cl.mc	Pearson Correlation	,506**	,346**	1	,390**
	Sig. (2-tailed)	,000	,000		,000
	N	192	192	192	192
INT1.mc	Pearson Correlation	,553**	,280**	,390**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	192	192	192	192

\*\* . Correlation is significant at the 0.01 level (2-tailed).

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future.

**Correlations (int1+int2)**

		AT.mc	SN.mc	Cl.mc	INT1.mc + INT2
AT.mc	Pearson Correlation	1	,529**	,506**	,466**
	Sig. (2-tailed)		,000	,000	,000
	N	192	192	192	192
SN.mc	Pearson Correlation	,529**	1	,346**	,239**
	Sig. (2-tailed)	,000		,000	,001
	N	192	192	192	192
Cl.mc	Pearson Correlation	,506**	,346**	1	,460**
	Sig. (2-tailed)	,000	,000		,000
	N	192	192	192	192
INT1.mc + INT2	Pearson Correlation	,466**	,239**	,460**	1
	Sig. (2-tailed)	,000	,001	,000	
	N	192	192	192	192

\*\* . Correlation is significant at the 0.01 level (2-tailed).

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future + INT2: Average cosmetic spending per month.

## APPENDIX 7

SPSS  
MULTIPLE REGRESSION RESULTS

### SKINCARE

#### Model 1

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,515 <sup>a</sup>	,265	,253	,955

a. Predictors: (Constant), Cl.sc, SN.sc, AT.sc

b. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62,542	3	20,847	22,846	,000 <sup>b</sup>
	Residual	173,375	190	,912		
	Total	235,917	193			

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future

b. Predictors: (Constant), Cl.sc, SN.sc, AT.sc

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,392	,301		4,620	,000
	AT.sc	,493	,093	,398	5,311	,000
	SN.sc	-,056	,069	-,059	-,806	,421
	Cl.sc	,232	,072	,232	3,232	,001

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future

#### Model 2

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,521 <sup>a</sup>	,271	,260	1,44851

a. Predictors: (Constant), Cl.sc, SN.sc, AT.sc

b. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future + INT2: Average cosmetic spending per month.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	148,325	3	49,442	23,564	,000 <sup>b</sup>
	Residual	398,655	190	2,098		
	Total	546,979	193			

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future + INT2: Average cosmetic spending per month.

b. Predictors: (Constant), CI.sc, SN.sc, AT.sc

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,022	,457		4,426	,000
	AT.sc	,564	,141	,299	4,004	,000
	SN.sc	-,011	,105	-,008	-,109	,914
	CI.sc	,484	,109	,317	4,444	,000

a. Dependent Variable: INT1.sc: I intend to buy new skincare products in the future + INT2: Average cosmetic spending per month.

**MAKE-UP**

*Model 1*

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,569 <sup>a</sup>	,323	,312	,902

a. Predictors: (Constant), CI.mc, SN.mc, AT.mc

b. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73,033	3	24,344	29,936	,000 <sup>b</sup>
	Residual	152,884	188	,813		
	Total	225,917	191			

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future

b. Predictors: (Constant), CI.mc, SN.mc, AT.mc

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,673	,243		6,883	,000
	AT.mc	,568	,089	,495	6,398	,000
	SN.mc	-,034	,068	-,035	-,491	,624
	CI.mc	,145	,067	,152	2,170	,031

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future

Model 2

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,535 <sup>a</sup>	,286	,275	1,44674

a. Predictors: (Constant), Cl.mc, SN.mc, AT.mc

b. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future + INT2: Average cosmetic spending per month.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	157,987	3	52,662	25,161	,000 <sup>b</sup>
	Residual	393,492	188	2,093		
	Total	551,479	191			

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future + INT2: Average cosmetic spending per month.

b. Predictors: (Constant), Cl.mc, SN.mc, AT.mc

**Coefficients<sup>a</sup>**

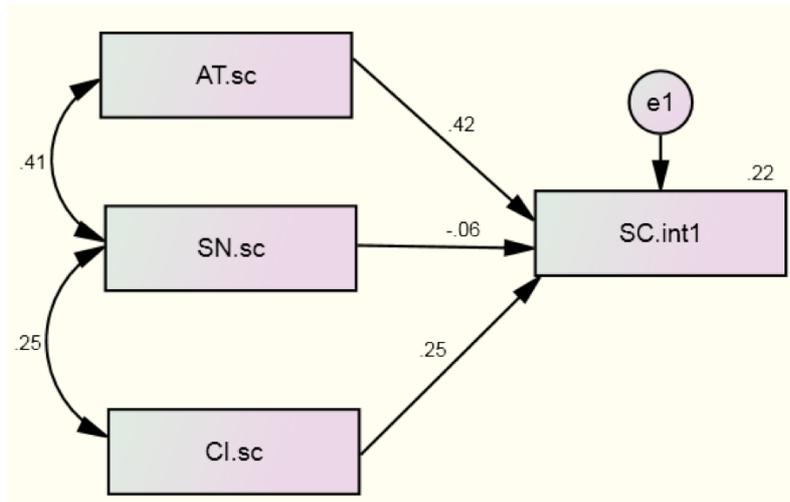
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,465	,390		6,322	,000
	AT.mc	,600	,142	,335	4,213	,000
	SN.mc	-,067	,109	-,045	-,611	,542
	Cl.mc	,457	,107	,307	4,268	,000

a. Dependent Variable: INT1.mc: I intend to buy new make-up products in the future + INT2: Average cosmetic spending per month.

## APPENDIX 8

AMOS  
MAIN EFFECT MODEL RESULTS

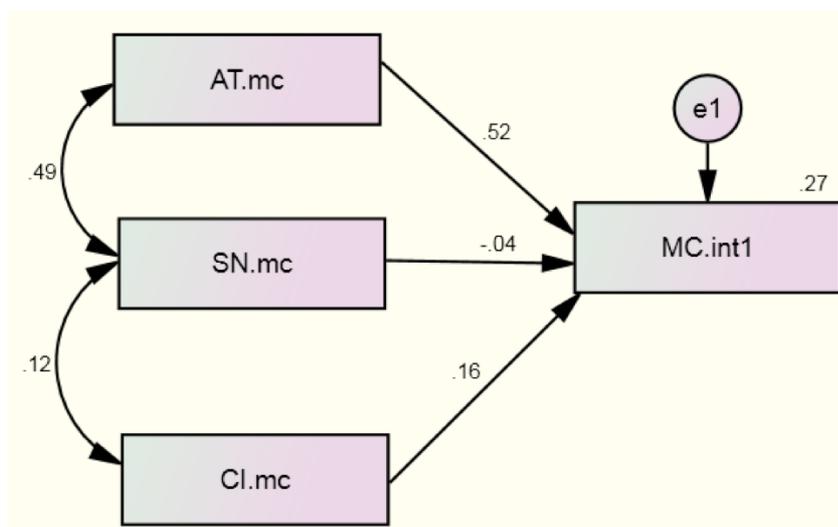
### SKINCARE



### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	45.763	1	.000	45.763
Saturated model	14	.000	0		
Independence model	4	179.907	10	.000	17.991

### MAKE-UP





## APPENDIX 9

SPSS  
DEPENDENT VARIABLE

### SKINCARE

Case Processing Summary

SC.int1: I intend to buy new skincare products in the future		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
	Strongly Disagree	10	83,3%	2	16,7%	12	100,0%
	Disagree	14	93,3%	1	6,7%	15	100,0%
int.spending	Neutral	44	93,6%	3	6,4%	47	100,0%
	Agree	68	93,2%	5	6,8%	73	100,0%
	Strongly Agree	44	97,8%	1	2,2%	45	100,0%

### MAKE-UP

Case Processing Summary

MC.int1: I intend to buy new make-up products in the future		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
	Strongly Disagree	12	100,0%	0	0,0%	12	100,0%
	Disagree	6	100,0%	0	0,0%	6	100,0%
int.spending	Neutral	39	100,0%	0	0,0%	39	100,0%
	Agree	76	100,0%	0	0,0%	76	100,0%
	Strongly Agree	59	100,0%	0	0,0%	59	100,0%

## APPENDIX 10

AMOS  
FULL MODEL FIT RESULTS

### SKINCARE MODEL FIT

#### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	36	76.70	29	.00	2.64
Saturated model	65	.00	0		
Independence model	10	1050.00	55	.00	19.09

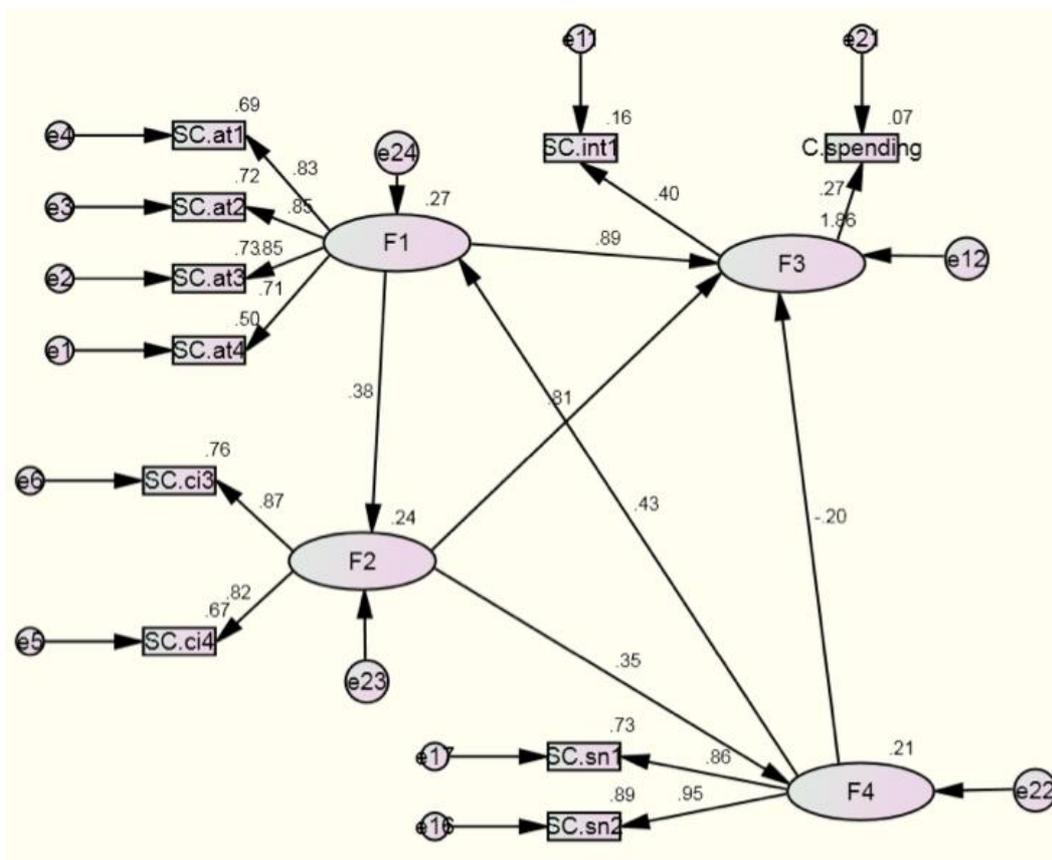
#### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.93	.86	.95	.91	.95
Saturated model	1.00		1.00		1.00
Independence model	.00	.00	.00	.00	.00

#### RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.09	.06	.11	.01
Independence model	.29	.28	.31	.00

Full Skincare Model with interactions between independent variables



Note. Independent Variables: F1: Attitude, F2: Consumer Innovativeness, F3: Subjective Norm. Dependent Variable: F4: Purchasing Intention

## MAKE-UP MODEL FIT

### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	36	113.11	29	.00	3.90
Saturated model	65	.00	0		
Independence model	10	1169.52	55	.00	21.26

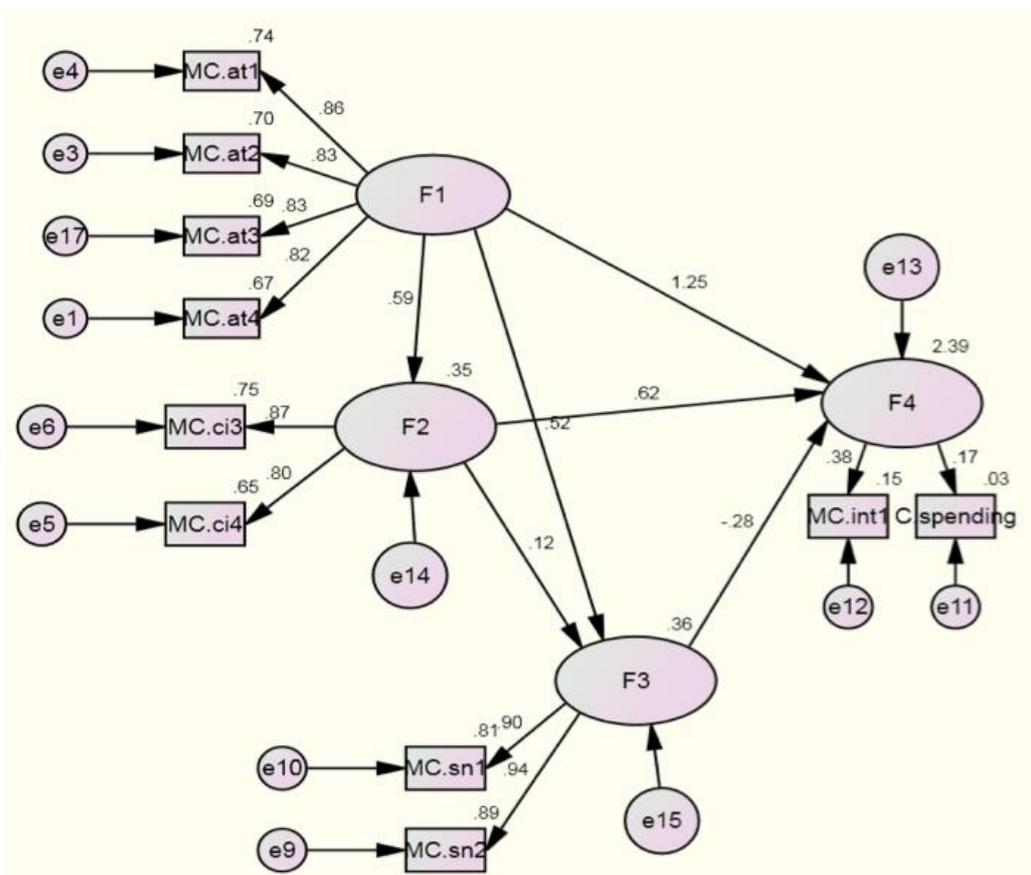
### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.90	.82	.93	.86	.92
Saturated model	1.00		1.00		1.00
Independence model	.00	.00	.00	.00	.00

### RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.12	.10	.14	.00
Independence model	.31	.30	.33	.00

Full Make-up Model with interactions between independent variables



Note. Independent Variables: F1: Attitude, F2: Consumer Innovativeness, F3: Subjective Norm  
Dependent Variable F4: Purchasing Intention





