

Consumer Perceptions and Behaviour in Respect to Ethical, Social, and Environmental Matters in Jewellery Business

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CONSUMER PERCEPTIONS AND BEHAVIOUR IN RESPECT TO ETHICAL, SOCIAL, AND ENVIRONMENTAL MATTERS IN JEWELLERY BUSINESS

This study aims at understanding how consumers perceive ethical, social and environmental issues in jewellery and how this affects their behavior. In essence, what influence these important matters have on the consumer, and thus to the jewellery industry. The study methods are two-fold. First there are sixteen qualitative research interviews with jewellery industry professionals taken in Finland, England, Italy, and in Australia. The second method uses data from an empirical quantitative research survey with a total of 407 Finnish respondents to study consumers' perceptions and behavior using factor and cluster analysis. These methods altogether yield a rich foundation to understanding the behaviour of consumers and the implications of this to jewellery industry.

Main drivers of consumer behavior in jewellery are *design*, *price*, and *trust*. Consumers require trust since it is difficult for them to understand and evaluate how the price is determined for a jewellery piece. Overall consumers care what they buy, but it seems that they have insufficient information on their purchases and this is the main problem with ethical consumerism. Based on this study 34% of the consumers are willing to make extra efforts to get ethically made jewellery despite some previous studies have estimated it as low as 1% (Bedford 2000). Moreover, the majority of consumers, more than 90%, are genuinely interested and concerned of ethical, social and environmental issues in jewellery.

Two main managerial implications are: First, **jewellery companies should now invest and study jewellery ecommerce**. During the next ten years Internet will have a considerable effect on sales, especially in retail. High Internet speeds and the ageing younger generation push the balance to Web, especially in brand and commodity jewellery. Second, **consumers expect that businesses will improve their corporate social responsibility**. This means that ethical, social and environmental issues in jewellery have to be taken in to account. This is a trend train that does not wait and fast adapters gain more market share. A quick checklist to compare company operations against '*the right way*' is to get to know the Code of Professional Practices by the Responsible Jewellery Council.

EETTISET, SOSIAALISET JA YMPÄRISTÖASIAT KORUALALLA – KULUTTAJIEN KOKEMUKSIEN VAIKUTUS OSTOKÄYTTÄYTYMISEEN

Tämä tutkimus pyrkii ymmärtämään kuinka kuluttajat kokevat eettiset, sosiaaliset ja ympäristöasiat yhteydessä koruihin ja kuinka tämä vaikuttaa heidän kuluttajakäyttäytymiseensä. Nämä tekijät vaikuttavat kuluttajien ostoskäyttäytymisen myötä suoraan koruteollisuuteen. Tutkimusmenetelmä koostuu kvalitatiivisesta ja kvantitatiivisesta osasta. Kvalitatiivinen osuus käsittää kuusitoista korualan semi-strukturoitua haastattelua, jotka ovat suoritettu Suomessa, Englannissa, Italiassa ja Australiassa. Kvantitatiivisessa osuudessa käytetään tietoa kyselytutkimuksesta, johon kerättiin yhteensä 407 vastausta suomalaisilta kuluttajilta. Tietoa analysoitiin faktori- ja klusterianalyysillä, joilla tutkittiin kuluttajien kokemuksia ja näiden vaikutusta käyttäytymiseen.

Kuluttajakäyttäytymisen pääajurit ovat design, hinta, ja luottamus. Kuluttajat tarvitsevat luottamusta, koska heidän on vaikea ymmärtää ja arvioida yksittäisen korun hinnanmuodostusta. Yleisesti ottaen kuluttajat välittävät siitä mitä he ostavat, mutta ongelma lienee kuluttajien pieni tietotaso sekä heille välitetyn tiedon vähyys. Tämän tutkimuksen mukaan 34% kuluttajista on valmiita näkemään ylimääräistä vaivaa hankkiakseen eettisiä koruja, vaikka joidenkin tutkimusten mukaan tämä on arvioitu niinkin alas kuin 1% (Bedford 2000). Yleisesti ottaen koruja ostaessaan kuluttajat, vastaajista yli 90%, välittävät eettisistä, sosiaalisista ja ympäristöön liittyvistä asioista.

Tutkimus nostaa esiin kaksi tärkeää liiketoiminnallista huomiota. Ensiksi **korualan yritysten tulisi investoida ja tutkia sähköistä kaupankäyntiä**. Seuraavien kymmenen vuoden kuluessa internetillä tulee olemaan suuri vaikutus kaupankäyntiin, erityisesti vähittäiskauppaan. Nopeat internetyhteydet ja ikääntyvät nuoremmat sukupolvet painavat ostamisen painopistettä internetin puolelle erityisesti brändien ja edullisten korujen tapauksissa. **Kuluttajat odottavat korualan yritysten parantavan yritys- ja yhteiskuntavastuutaan**. Tämä on toinen tärkeä huomio. Eettiset, sosiaaliset ja ympäristöasiat painavat nyt jo entistä enemmän ja ne tulee ottaa huomioon. Tämä on nyt selkeä trendi, joka ei odota yrityksiä. Nämä asiat voi käydä systemaattisesti läpi tarkastuslistan avulla, jollaiseksi sopii esimerkiksi Ammatillisten toimintapojen koodisto (Code of Professional Practices), jonka on julkaissut Vastuullisten korujen neuvosto (Responsible Jewellery Council).

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LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
AML	Anti-money laundering
EFA	Explorative factor analysis
CFA	Confirmatory factor analysis
COD	Country-of-design
COM	Country-of-manufacture
COO	Country-of-origins
CRM	Customer Relationship Management
CSR	Corporate Social Responsibility
CST	Consumer Sovereignty Test
ppm	parts per million
px	pixels
SCM	Supply Chain Management
SME(s)	Small and Medium Enterprise(s)

1 Introduction

This thesis is highly motivated by the writer's, current, four-year entrepreneurial experience in the jewellery industry. Further, as this experience submits a certain degree of insight of the industry for the research, it simultaneously allows the academic approach to have an essentially integrated business touch. This results to the present study aiming to be of high usage to the respected industry, and to contain significant managerial implications.

1.1 Background

In the jewellery industry the seller is responsible for, just to name a few, the product origins, its quality, and ethical supply process. Also, as in the case of precious metals, material characteristics for consumer retail are standardised and mandated by law. However, monitoring and verifying the supply chain, and the quality of products, in practice can be very tricky or even impossible task when considering the cost, especially for a small- and medium-sized enterprises (SMEs). Therefore, in the industry there is a natural space for products of questionable quality and unethical practices.

On the other hand, the consumers in making their choice where and what to buy, especially true in today's corporate social responsibility (CSR) atmosphere, place their pressure in the demand for ethical jewellery. However, it is interesting to know how this pressure, if it exists, translates to the industry, since the customer's purchase decision affects the industry in a fairly complex manner. For the basis of the present study a brief discussion is needed.

To begin this, mentioning topics such as *ethical supply, ethical product, supply chain management, consumer behavior, consumer choice, ethical choice, ethical purchase decision* shows, not only that there are a great number of related subjects, but that a good focus, to limit the scope, is needed. Clearly, for the customer, the essential focus is the end product, the piece of jewellery that he or she buys. Thus, all uncertainties that the consumer faces are linked to it. From the industry perspective, the CEO of Jewelers of America (Runci, 2004) has pointed out evident risks related to the reputation of jewellery industry, especially when the products are of *high visibility, glamour, and by non-essential nature* positioned in the luxury industry. He then continued, acknowledging difference in the economical position of the *labour in developing countries*, that there are *social, ethical and environmental risks* related to the industry. Also, according to him the reputation of the jewellery industry is mostly tied with the suppliers in the end of the upstream of the supply chain. Further, he argued that the consumer confidence can have a significant impact on all levels of the size of the jeweller retail business, having a stronger impact on SMEs sector. The CEO stressed that the time of action towards social, ethical, and environmental issues is now, to counterbalance some of the risk in damage of industry reputation.

Clearly, there is a lot of work to be done in industry in terms of improving the supply chain. It is then reassuring to learn that action is also taken. Jewelers of America (Runchi, 2004) stated five years ago that they are embarking on development of social, ethical and environmental statement of principles. Encouragingly, they took action and were one of the 14 founders of *Responsible Jewellery Council* in 2005. The organisation today helps to communicate their *Code of Professional Practices* (Responsible Jewellery Council, 2009). This declaration, presented in Appendix I, gathers together *ethical practices, social and human rights practices, and environmental practices*, thus pursuing to tackle the social, ethical and environment concerns that some of the industry executives had signalled. It also provides a comprehensive list of related issues. A good note for managers.

The Code of Professional Practices tackles a wide array of alarming subjects such as *bribery, corruption, money laundry, conflict diamonds, fraud, data privacy, human rights, health and safety, rights of indigenous peoples, tradition, culture, social heritage*, and *environmental footprint* and also some other softer issues such as *honesty, sincerity, truthfulness, integrity* and *transparency*. These are important issues, but outside of the scope of this study. Nonetheless, it is important to acknowledge this background.

Apparently, there are wide considerations and efforts to ethics put in place both from the industry, verified by checking the latest members of the Responsible Jewellery Council (Responsible Jewellery Council, 2009) and by observing the efforts of individual silver and goldsmiths (Kingsley and Miller, 2009), as well as the growing web resources on the topic. At present it can also be noticed that the ethical issues related to jewellery are present in the media, thus reflecting public interest. Nevertheless, this has not been so for an extensive period. Possibly, the success of the film *Blood Diamond* (2006) finally got the public aware of the issues related to jewellery, as this is argued through some industry experts (Choyt 2009). However, this film merely touched the surface of all of the related issues.

Hence, do the consumers consume ethically? While market research findings affirm that up to 90% of all consumers believe that ethical issues matter, it is interesting to note that the number of people consuming ethically with any regularity remain at around 1% (Bedford 2000). This is a very interesting notion. When trying to understand the public as whole this not only implies that this study can not concentrate on ethically consuming minorities, but also that it might be so that the ethical decision making might not have such a big impact overall.

Therefore, it is intriguing to measure how the ethical aspects of the products are identified and weighted by the big jewellery consuming masses. Do the ethical aspects actually have any relevance? What defines an ethical image on a product? Is the mere feeling of doing something ethically sound defines how one perceives his or her ethical behavior? Is then this perception enough to satisfy the individual? And, more

importantly, what role does the jewellery store play? Is it the *product display*, *consumer assistance* and *brand name* that define the ethical experience for the buyer? Since naturally the store image plays an important role in defining the customer decision over a product (Brokaw 1990). Or, on average, does the customer really care about ethics, when he or she is buying jewellery? These are all interesting questions, which with an in-depth answer will have considerable managerial implications.

1.2 Definitions and Key Concepts

The main three concepts that are key to understand the following discussion and analysis are *consumer behavior*, *consumer perception*, and *ethics*. These three form the foundation for this study. This brings the focus together, since as it became clear from the introduction that there are more than numerous fields available. Therefore, to set a clear understanding, these three concepts are briefly explained.

Consumer behavior concerns mental and physical behavior of individuals and groups regarding orientation, purchase, use, maintenance, disposal and household production (do-it-yourself) of goods and services from the market, public, and household sectors leading to functionality, achievement, satisfaction and well-being. (Adopted with modifications from Antonides and Raaij, 1998 p.4).

Consumer perception, in general, can be defined as the person's meaningful experience of the service or product. Sometimes the experience can merely be mental images when the concrete experience is missing. It entails all the aspects of sensory input, meaning the information received from the eyes, ears, nose, tongue, or skin. Consumer can thus be affected via many different channels on how he or she perceives a certain offering.

Ethics relate to a philosophy dealing with human conduct, namely moral philosophy. It relates to the aspects of right and wrong, as well as good and evil, and related matters. In terms of jewellery industry in this thesis, it will be referred to conducting and governing business with sound principles, and 'doing the right thing'.

1.3 Research Problem

Business ethics and sound work practices has risen to become an important theme in the corporate world. These matter revolve around corporate social responsibility, CSR. How companies are perceived today has a big impact on consumer purchase decisions. If a company violates or disregards it responsibility, it creates negative publicity, which often is felt in the sales. Therefore, based on the background discussion, the key approach of this study is to explore how the consumer perceives the ethical, social, and environmental issues related to jewellery and how this translates to his or hers behavior. These perceptions and the behavior can then be linked to make concrete managerial implications. This should benefit the company in increased sales and customer loyalty.

The main topic of this study is consumer behavior, and its interpretation. What are the consumer *perceptions towards the industry, jewellery shops, brands*, and most importantly, *towards jewellery*? How do these perceptions affect the consumer behavior? By developing this further, three questions arise: what is typical consumer behavior, what are the typical consumer groups, how do these groups behave? Answering these questions should bring a deep understanding on how the issues and the behavior are related, thus showing the real risk of unsuccessful CSR for the industry.

1.4 Research Objectives and Questions

The aim of this study is to learn **how consumers perceive jewellery and how this affects their behavior**. The focal point of this research is in the consumer and his or hers perceptions that shape the jewellery markets. To gain a more holistic view, during this study a brief outlook to the jewellery industry is taken. This serves to illustrate and explain the industry size and structure. Thus, this study seeks to identify if there is pressure to improve the jewellery industry CSR due to the behavior of the jewellery consuming masses.

First, we need to understand the consumer. To provide for this, an **empirical quantitative research** approach is justified. This will best enable us to identify the

perceptions towards the ethical, social, and environmental issues, along with the main aspects in consumer behavior. This approach will bring a holistic understanding of the consumer and the behavior. Due to practicalities, this study is limited to examine Finland's jewellery buying population, but as such should give a fair presentation of the consumer behavior in the North Europe.

In order to get an in depth understanding, and to study the industry, **qualitative research** is needed to back up the research. This is best achieved with semi structured open interviews with top industry professionals. Although this is highly dependent on the availability of the interviewees and perhaps represent the opinions of strong individuals, by examining the recorded interviews with a critical eye, one can assert clear facts and significant findings. These extra findings should crystallize the observations made in the literature research and survey analysis, bringing this study to a strong academic level, while essentially integrating the business touch.

Thus, based on these objectives the main research question for the present study is:

How do consumers perceive ethical, social and environmental issues in jewellery, and how do these perceptions affect their purchasing behavior?

In addition, the main research question calls for five sub-questions to improve subject clarity:

- 1. What are the characteristics of customer behavior in jewellery?*
- 2. How do consumers perceive which ethics issues are related to jewellery?*
- 3. What are the characteristics of the main consumer groups in jewellery?*
- 4. What affects the purchasing decision of the customer in jewellery?*
- 5. What are the key managerial implications on the bases of consumer behavior in jewellery?*

1.5 Scope and Methodology

This research draws its information on three main sources. First, the literature review provides a brief focused comprehensive reading on the main topics that are dealt with in the research. This enables the reader the sufficient background information on the essential matters in regard to the main argumentation and analysis. Second, there are numerous specialist interviews covering many different jewellery industry professionals. These special interviews enabled to grasp an understanding on the main questions and difficulties there are present in the industry in general and especially in relation to the research topic.

Finally, a quantitative web survey was carried out to test the main hypotheses. This survey was sent to 10 000 recipients and a response rate of 4% in completed surveys was attained. Overall, in terms of web surveys this can be regarded as excellent ratio, since normally it can be as low as 0,5 – 2 % (Mailer Mailer 2009). The survey results reflected well the assumptions and hypotheses as well as they provided excellent new information on the proposed questions.

2. Literature Review

The scope of the present study covers a variety of disciplines. In order to study **how consumers perceive ethical, social and environmental issues in jewellery, and how these perceptions affect their purchase behavior** this section covers an assortment of related topics in theory and literature.

Furthermore, as this research is involved with ethical, social, and environmental issues, elements from *business ethics* as well as *sustainable consumption* are included. This review on relevant literature will ensure substantial grounds to find the needed tools for measurements for the quantitative research on consumer perceptions and behavior in jewellery.

2.1 Introduction to Jewellery Industry

It is natural to begin first by discussing the industry itself. What it is essentially about? What key characteristics it has? What is the size of the industry and how it is spread across countries? And what problems are there present when looking at the supply chain? This discussion builds the foundation on top of which we can begin to look at the consumer and the behavior.

Jewellery is part of luxury industries. In addition, the businesses that are in jewellery are often dealing with other luxury products or *vice versa*. This can cause easily confusion. First, to get a holistic view on luxury industry, the following list gathers all products in the category (Danziger 2010):

- Luxury Clothing & Apparel
- Luxury Fashion Accessories
- Luxury Beauty, Cosmetics & Fragrances
- Luxury Jewelry
- Luxury Watches
- Luxury Wine & Spirits
- Luxury Automobiles [and other vehicles, such as boats]

Clearly, as seen in the list above, luxury is a complex field. Yet, when addressing market shares and sizes in jewellery industry, often the confusion is related to watches, since some include them to jewellery where as others do not. Therefore, when representing numbers must remain critical, and leave room for assumptions that make the base of numbers. Further, to explain more of the logic behind the numbers, one needs also to consider which part(s) of the supply chain are taken in to account. For example, if one calculates the mining of the raw materials, manufacturing, wholesale, retail, and hand-made jewellers surely the numbers add up more, than they would just by them selves.

Jewellery industry is highly cyclical in nature and that is mostly driven by the increasing wealth (Koncept Analytics. 2008). This is a fact that affects the industry both in good and bad times in the world economy. Yet, the positive long-term growth trends are there, as well as the different estimates of the size of international jewellery industry. Some academics (Chevalier and Mazzolo 2008 p68) have put this number in 30 billion EUR, while industry specific research companies suggest considerably bigger size of 236 billion USD (Verdict Research Ltd. 2008).

Quite a spread. If one is to judge these two numbers, it can be noted that the diamond supply giant De Beers company with their 40% world market share, mark with their turnover solely the World diamond supply to 17 billion USD in 2008 (De Beers 2008). Therefore, the 236 billion USD estimate for world jewellery market seems rather more convincing.

Yet, there is another way to estimate and analyse the world market sizes for jewellery. Population and GDP per capital are well available and usable information. There can be also found numerous references to different jewellery market sizes. Therefore, it is possible to compare all these figures with the following simple formula:

$$\frac{GDP[USD]_{country} * population}{market\ size[USD]_{country}} = \alpha$$

Now, the following analysis in Table 1 should give a fair representation how much variance the reference data gives for the assumed constant α . The constant measures the expenditure on jewellery taking relative purchasing power into consideration. Thus, with this simple yet realistic analysis, the market size numbers can be analysed in a wider context.

Table 1. Relative analysis of world jewellery market sizes

Reference	Country	Market size	GDP per capital*	Population*	α
<i>Netscribes (India) Pvt. Ltd. 2010</i>	<i>India</i>	<i>USD 16 billion in 2010 jewellery</i>	<i>\$3100</i>	<i>1173 million</i>	<i>227</i>
<i>Verdict Research Ltd. 2008</i>	<i>The world</i>	<i>USD 236 billion in 2010 jewellery</i>	<i>\$10500</i>	<i>6831 million</i>	<i>304</i>
<i>Mintel International Group Ltd. 2007</i>	<i>UK</i>	<i>USD 7.5 billion** in 2007 jewellery and watches</i>	<i>\$35200</i>	<i>61 million</i>	<i>286</i>
<i>Mintel International Group Ltd. 2008</i>	<i>UK</i>	<i>USD 4.1 billion** in 2008, jewellery</i>	<i>\$35200</i>	<i>61 million</i>	<i>524</i>
<i>Beijing Zeefer Consulting Ltd. 2010</i>	<i>China</i>	<i>USD 12.3 billion in 2010, jewellery</i>	<i>\$6600</i>	<i>1330 million</i>	<i>714</i>

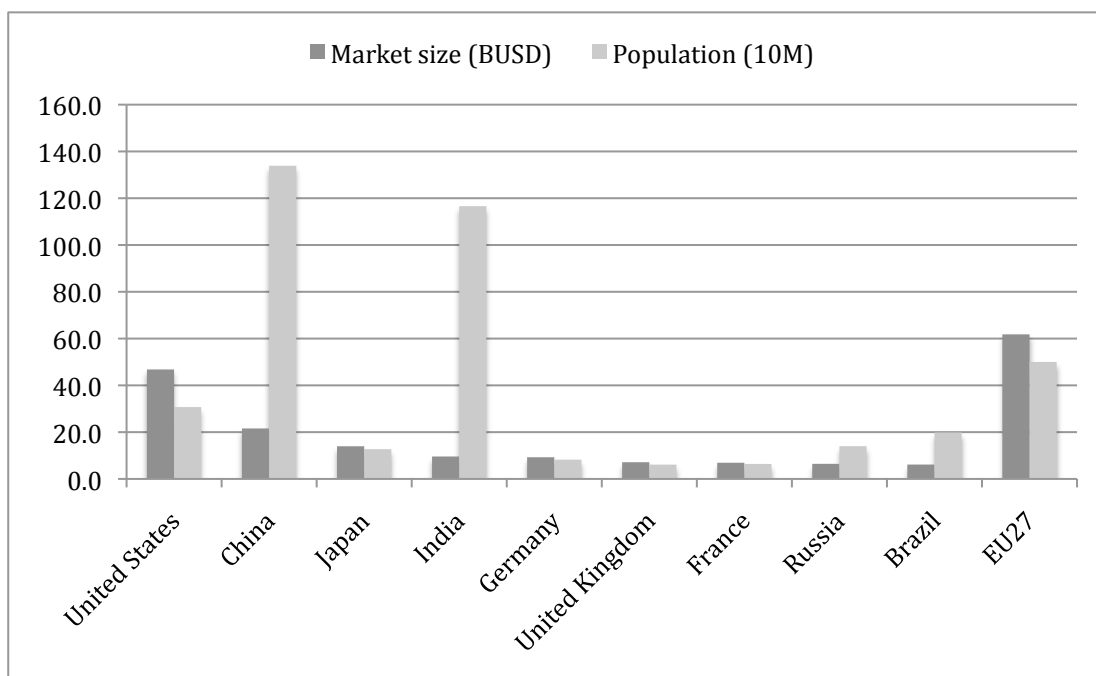
**data from CIA world fact book 2010a. **Exchange rate USD/£ = 1.59*

The lower the constant α is, the more significant is the population's expenditure on jewellery in relation to their purchasing power. Surprisingly, India shows the highest relative expenditure on jewellery. Perhaps, it is due to the country's old traditions with jewellery: in any festivity (e.g. marriage) the celebration is incomplete without any precious jewellery (Netscribes (India) Pvt. Ltd. 2010). The fact that India consumes 20% of world gold supply, with the share only expected to grow, the country clearly has

interesting market prospects (RNCOS 2009). For China, the constant α is relatively high in comparison to the others. This means that either the market value itself is estimated too low or, in relation to the Chinese purchasing power, they do not spend on jewellery too much. Further, for the UK the lower α , which includes only jewellery, is in right proportion to the World and India. This gives an understanding of what is the most probable estimate for the constant α .

Therefore, to calculate specific national market sizes for jewellery, using GDP and the size of population, for the constant α it is justified to use the value of 304, since four of the five independent market sizes agree to this. This now enables us to calculate world jewellery market sizes. A complete list of these is presented in Appendix II. To illustrate the key markets Figure 1 gathers the top ten jewellery markets in respect to the population.

Figure 1. The key World jewellery markets. Market size in billions of USD and population in 10 millions (GDP and population: CIA World fact book 2010b).



It is clear which countries are in fact, the major markets for jewellery. In fact, by studying the appendix we can note that 10% of the top markets make 80% of the total jewellery World market. Also, it is interesting to note how different the markets are by merely observing the market size to population ratio. Finland captures roughly 0,3% of the World market share.

However there is one another interesting aspect to consider still; the EU27 as a one jewellery market. If one takes the current population 501 million and GDP per capita 23 600 EUR (Eurostat 2010), the European Union jewellery market size can be calculated to 38.9 EUR billion [or 61.8 billion USD]. This is illustrated in the figure above as well. Thus, EU27 creates the biggest single market for jewellery in the world, all in all 29% of total. This is a big opportunity, yet major challenges exist as well. One would be the languages, but also the consumer tastes and preferences vary considerably within the market. If a single company is to tackle this, the marketing needs to be targeted in many ways. These are major challenges, however there are big possible gains.

2.1.1 Supply Chain

In terms of ethical, social, and environmental soundness everything is to do with the supply chain of the jewellery company. Further, supply chain management is seen as a clear indicator of how well a company is being run (Jamison and Murdoch 2004). If a company run its supply with high standard, would it be enough? To take a holistic look at the supply chain Figure 2 provides a good illustration of all the levels that are present commonly in a supply chain.

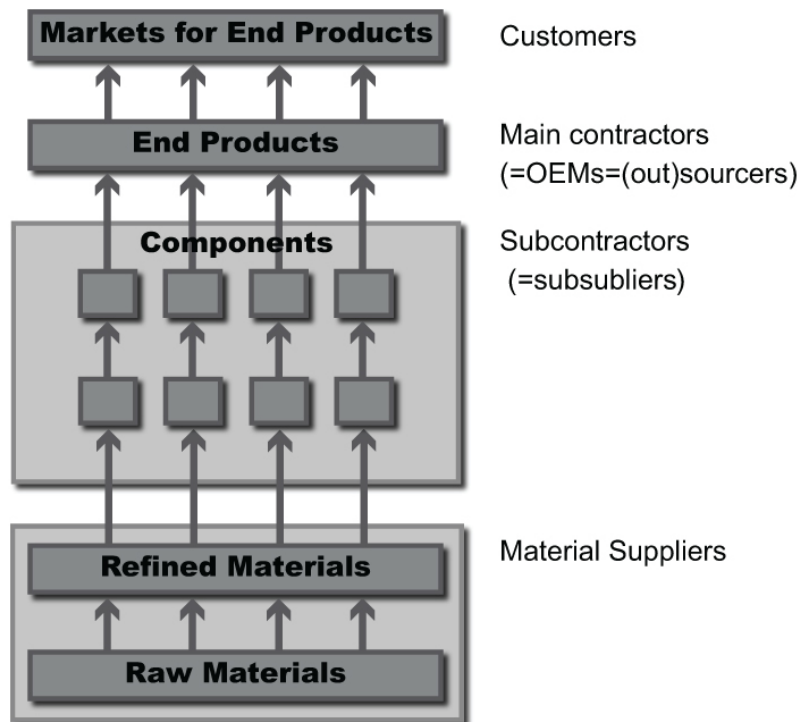


Figure 2. Commonly known layers in the supply chain.

As seen in the figure above there are many layers of suppliers. This adds complexity to its management. With more layers there is more variation in the soundness of running the business. Also, when dealing with precious metals, such as silver and gold, their origins are almost impossible to determine. E.g, a certain per centage of gold from war-zones with dangerous working conditions, are sure to enter the world gold supply consequently reducing the overall ethical soundness of the industry.

It would only be fair to say that most of the jewellery industry is trying to play the game with sound rules. To achieve good ethical practice it is important to select the business partners well. And, in case of new partners, it seems that a company audit is the only way to make the operating standards clear. In fact, audits are still the main tool by companies to monitor supplier performance (Jamison and Murdoch 2004) and also an opportunity to monitor the ethical, social, and environmental practices. This is something that has also been noted by the jewellery industry professionals (Minkkinen 2009).

Other means of protecting the consumer are regulation and different joint organisations and standardization. A good example is the Kimberley Process Certification Scheme. It gives a detailed description in the form of certificates considering the path of diamond from mine to customer. Further, the governments also regulate the alloy composition of precious metals sold to the consumer. For example, in Finland it is required to stamp the jewellery piece with the alloy stamp and the name of the manufacturer or seller responsible in jewellery pieces that weight over 1 gram in gold, and over 10 grams in silver (TUKES 2009). Also, there are regulation concerning metallurgical composition in general and the maximum amount (*ppm*) of toxic metals that can be present in the jewellery alloy. However, a great deal of the transaction is based on the trust between the seller and the customer.

In general, the corporate scandals relating to unethical business practices are caused by unsound business principles in the downstream of the supply chain. A classic example of a scandal like this is the case of Nike, where some of Nike's sub-contractors ran their operations by unethical practices. Nike basically did the mistake of announcing their high standards and not checking up on them. This led to the discovery of the mal-practices by an external NGO, and the subsequent uproar in publicity (Global Exchange 2011). Therefore, a good lesson from this for jewellery companies is that before announcing any company standards of ethical, social, and environmental practices, the company should first conduct a comprehensive check on all of their suggested values.

At the end jewellery business as any other business is about making profit. It is good to emphasize this, since this is arguably the main driver also behind the issues presented in this study. Therefore, it was good to begin with a business introduction to the key markets, their sizes, and touching briefly the supply chain. If there are to be changes, they usually occur, when consumer behavior changes, that is when sales drop or when the sales are in danger. It is commonly known that there have always been good business opportunities in sensing and acting accordingly to these changes.

2.2 Consumer Behavior

Understanding consumer behavior allows a number of things; it opens up opportunities in forecasting demand, evaluates behavior in society, brings understanding on how brands will behave, helps seeing how the company can serve the customers in most efficient manner, and also it is the base for the individual to come into terms of one's own expenditure. In fact, the study of consumer behavior is a rich science that includes elements from psychology, marketing, economic, and consumer politics to name a few. (Antonides and Raaij, 1998 p.1)

Consumer behavior consists of both tangible and intangible elements such as the concrete product or service, but also of mental processes and systems of beliefs, values and self-realization (Ibid. p.4). Therefore, to understand the consumer behavior in a broad context as possible it is best to build a more representative illustration on the matter (Figure 3).

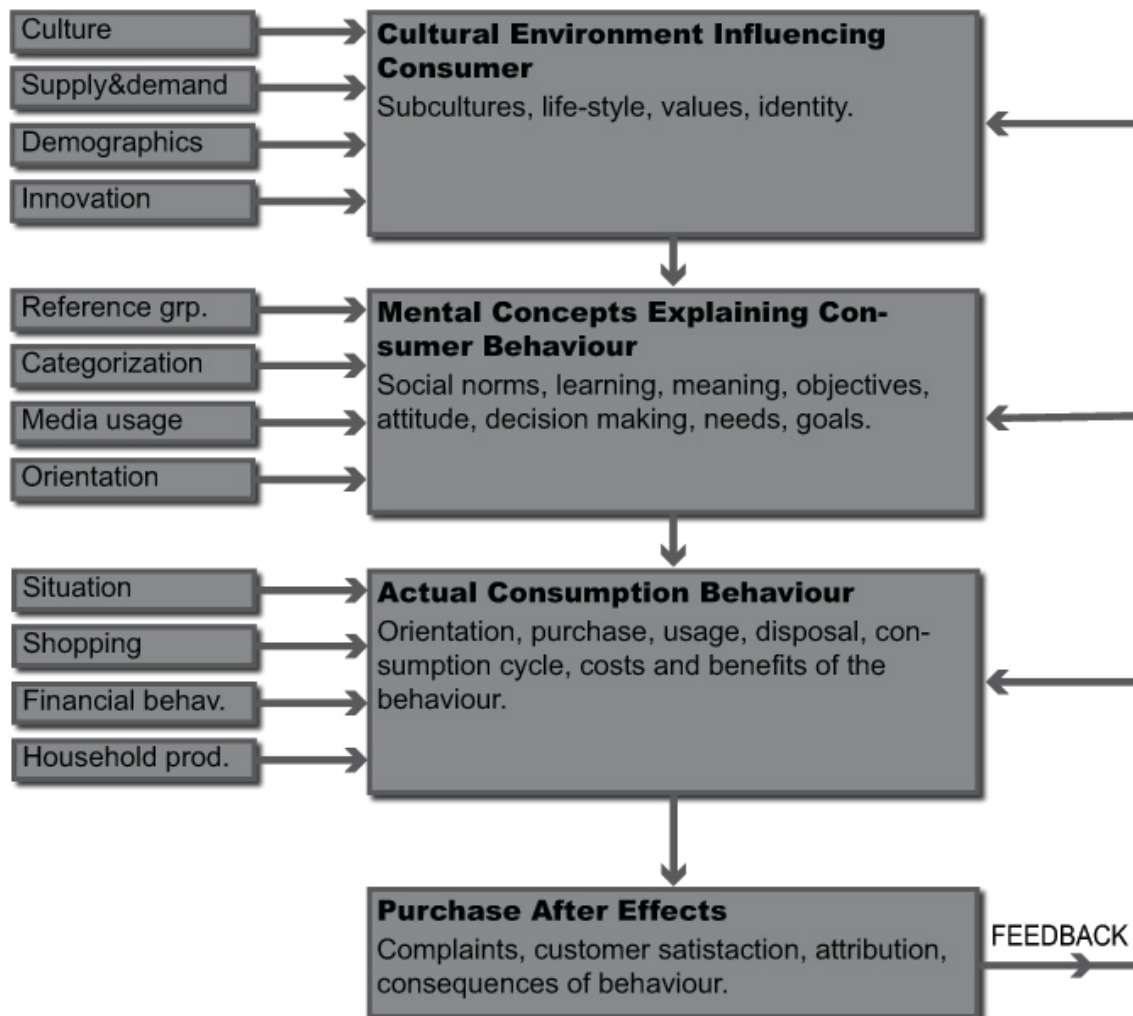


Figure 3. Consumer Behavior Flowchart (Adopted with modifications from Antonides and Raaij, 1998 p.16 and p.160).

As is illustrated in Figure 3, consumer behavior is a vast area where many elements and environments add impact and influence to the consumer's mind. It is good to have a more formal way to examine the whole. First, we can observe the external environment of the consumer, which is *Cultural Environment Affecting Consumer*. Culture, common values, different life-styles, and the population all have an affect. One is always embedded in society and the powerful effect it exhibits is undeniably there. The

environment affects the consumer by determining at least the frame of the mental space where the individual operates. One good example would be to compare a person from Finland and another from Buenos Aires. Clearly, the diverse environments affect these individuals differently.

Second, there are the inner mental projections of the consumer, meaning *Mental Concepts Explaining Consumer Behavior*. Surely how one feels and perceives oneself has a cause-relationship to the actual behavior. The individual also develops through time and usually learns during the journey. In different stages different reference groups determine the behavior. It is the class members who are wearing that one certain brand of jeans or weather those other members of the executive committee, who drive with that certain brand car. It is the same phenomenon, only with different products. Reference groups undeniably have a considerable effect. Overall, this is about *self-presentation*, meaning projecting your identity as your image (Antonides and Raaij, 1998 p.164). This is how the inner world of the consumer is connected to the actual behavior.

Third, *Actual Consumer Behavior* deals with the practicalities of the buying process. There are number of things affecting this, such as *the situation*, or how the individual weights *the costs and the benefits*. After the purchase the consumer evaluates his or her actions retrospectively and adjusts the coming behavior accordingly. *Purchase After Effects* is there to highlight this. Overall, all the elements have an effect, and on the whole the phenomenon can be seen holistic and dynamic.

2.2.1 Motivation and Emotions

Motivation is central to consumer behavior. Motivation is the spark, the drive, in creating or sustaining certain behavior. It pushes or pulls the individuals in to action. Further, it determines the intensity and direction of the behavior (Antonides and Raaij, 1998 p.1). There are numerous theories in psychology that study and categorise motivation in their own respective manners, but here only the relevant ones are here identified and briefly discussed.

Karl Jung and Abraham Maslow are two classical theorists in psychology. Jung's approach to collective subconscious offered opportunities for marketers working with myths, images and symbols (Arnould et al. 2004, p.269), while Maslow became famous of his hierarchy of needs. In the Maslow's hierarchy needs are satisfied from low level to high level; *physiology* (basic needs), *safety and security* (shelter etc.), *socialistic* (acceptance, friendship), *egoistic* (success, self esteem), and *self-actualization* (enriching experiences) (Arnould et al 2004, p270). By looking jewellery and Maslows hierarchy, it can be concluded that jewellery revolves in the third and fourth levels, that are the socialistic and egoistic need levels. Therefore, jewellery is not a basic need. A person can manage without jewellery, even tough it first might seem that jewellery is something very basic to human nature.

One interesting sub concept of motivation is *social motivation*. It contains the need for social contacts or affiliation of being accepted by others, and having power over others (Antonides and Raaij, 1998 p. 167). Certainly, jewellery purchase behavior is partly motivated by this. By viewing how people interact and project their self-image one can easily observe that many use jewellery perhaps to gain social recognition.

Even more, jewellery causes emotions; it is evident that emotions are an element affecting consumer perception of aesthetic objects (Lagier and Godey 2007). This means that the individual can even regulate his or her emotions to achieve desired states by using a product or a brand, (Tsai 2005). This is important, since if the desired emotions are identified, their representation in the sales and marketing of jewellery can be reshaped, thus leading to higher sales.

A classical approach is to present the basic needs: *pleasure, acceptance, fear, surprise, sorrow, disgust, anger, and anticipation* (Antonides and Raaij, 1998 p. 191 citing Plutchik 1980). Figure 4 illustrates that these emotions can actually be paired as opposites to each other.



Figure 4. Some of basic needs paired as emotional opposites (Adapted with modifications from Antonides and Raaij, 1998 p. 191 citing Plutchik 1980).

It is a great interest, concerning consumer behavior, to know which product, service, and purchase situation induces which emotions in the consumer (Antonides and Raaij, 1998 p. 192). Therefore, to better understand the consumer a measure to acquire emotional information about the customer concerning jewellery is justified in this research. This can draw information on the emotional space where the customers do their decisions.

Further, in regard to precious jewellery it seems that the *subjective* attributes of motivation are more important than the *objective* attributes defining the purchase behavior (Jamal and Goode 2001). Other researchers name these as *non-functional motives* and *functional motives* (Sanguanpiyapana and Jasper 2009), while the meaning is essentially the same. It is about intangible or tangible product attributes. For example, the jewellery shopper buys a necklace because she needs a gift for herself or for somebody, but buys a certain brand because it satisfies certain image criteria.

To explore these further, the main tangible motives to choose a specific shopping venue can be listed: *a good selection of merchandise, a variety of price ranges, products that fit needs* (sizing, styling, etc.), *convenient hours*, and *convenient location*. Where as the intangible motives can be named *as salesperson interaction, pleasure in shopping* (self-gratification), *learning about new trends, role-playing, and diversion* (Sanguanpiyapana and Jasper 2009). Note the purchase choice of the product is actually dominated by intangible product attributes. Where as when choosing the jewellery shop venue, it is

the tangible dimensions that matter (Jamal and Goode 2001; Sanguanpiyapana and Jasper 2009)

2.2.2 Self-image and Life Style

Fashion industry, especially as well as the jewellery professionals, often do not forget to mention that wearing jewellery is just like wearing clothes. Nevertheless it is the jewellery piece or pieces regularly come to the centre of attention, when one looks at or evaluates the person. Arguably jewellery is a strong tool to build self-image, to affect how one thinks of his or her self and to project this to others. Then how is *self* connected to jewellery?

According to recent research *self-directed pleasure*, *self-gift giving*, *congruity with internal self* and *quality assurance* are key elements for the jeweller to strengthen and build the brand loyalty (Tsai 2005). Thus, the order how the customer perceives the jewellery product image, especially in connection to *one-self*, represents the key in capturing the value perception of the product. In other words, if one would like to give a gift to one-self, what would be the optimal conditions, for the purchase to happen? This is extremely interesting to note in this research, since it influences the customer decisions to a far great extent. It is good to also note that 56% of all jewellery purchases are self-gifts (Aiello et al. 2009).

Lifestyle is the pattern of consumption what is defined by the individual's choices how to spend time and money (Solomon 2009 p.255). This can have a significant impact on how the individual behaves in relations to jewellery shopping. At one end, the individual might refuse to use jewellery at all, or the individual could maintain a large collection of jewellery to go along with every dress, suit or with every occasion. Interesting is to find out whether there are specific groups that are more keen on jewellery shopping than others. This would be of a help to target marketing efforts specially designed to meet the habits of these groups. This argues on the behalf on using cluster analysis in the methods.

Note that luxury and life-style are interconnected. According to recent findings the mere exposure to luxury is likely to activate self-interest (Roy and Chua 2009). This is interesting, because if self-interest increases, it will impact the individual by increasing the self-rewarding. Given that jewellery shopping is easy and convenient, the mere exposure to luxury jewellery will lead to increased sales. This is a good to note for jewellery marketing.

2.2.3 Purchase Decision

To understand how the consumer arrives at his or her decision, it is necessary to briefly examine how the purchase decision is made. The academic discipline examines behavior from five different perspectives: *Economic utility maximising*, *cognitive decision-making*, *experimental or hedonic*, *behavioral influence*, and *meaning transfer* (Arnould et al 2004, p272). The first one is about maximising returns where the second is a stage in problem solving. The third, experimental or hedonic, is rather self-explanatory, while behavioral influence argues on the effect environmental elements oppose on the individual. The fifth, meaning transfer is a new concept that explains the individual obtaining elements to complete or colour one's life story. There are several ways to make purchase decision and often it depends on time. Figure 5 briefly outlines the different phases a regular jewellery buyer would go.

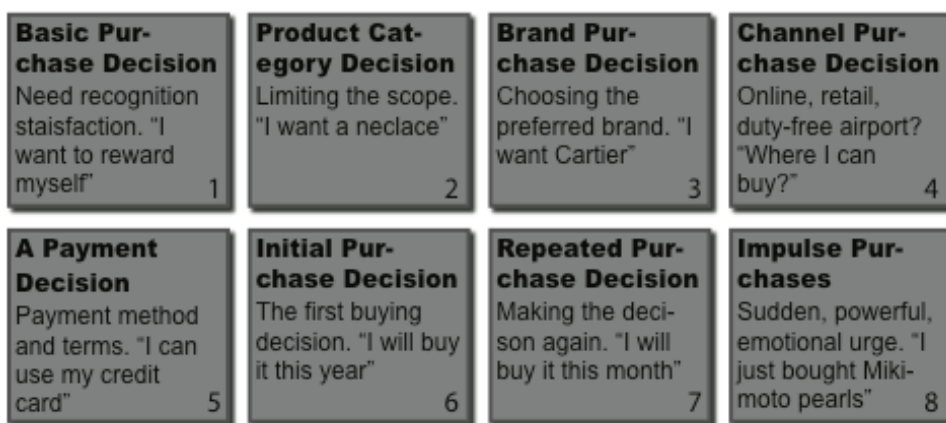


Figure 5. Purchase Decision Flow (Arnould et al 2004, p676).

It is important to note the practicality of these decisions as well as the linkage between them. Often the individual needs to make a series of purchase decisions in order the final purchase to occur. Thus, from need recognition there is several stages to the action. In this respect, it is interesting to note that the *impulse purchase* is, at least seemingly, disconnected of this series.

How does the customer outweigh the different criteria, when choosing the piece of jewellery? One could think that the choice is between the *brand, design, price, warranty, advertisement*, and of course *country-of-origins*. But what is or what are the main dimensions that drive the criteria? By looking at Table 2 one can draw interesting conclusions. Price is the dominating factor when comparing convenience goods, e.g. milk or bread. Perhaps, it is advertisement that draws the individual's attention, however it is the brand that is second factor, when the customer is choosing the convenience good.

Table 2. Product evaluation and purchase decision criteria in comparison to each other. A US jewellery shopper study, n=192. (Aiello et al. 2009).

Items	Product Evaluation			Purchase Decision		
	Convenience goods	Shopping goods	Speciality luxury items	Convenience goods	Shopping goods	Speciality luxury items
Brand	2.68	3.87	4.69	2.63	3.68	4.44
COO	2.60	3.26	3.87	2.27	2.84	3.40
COD	2.22	3.16	3.93	2.06	2.85	3.51
COM/A	2.70	3.31	3.64	2.48	2.91	3.34
Price	4.09	4.14	3.53	3.94	4.11	3.94
Warranty	2.70	3.63	4.04	2.50	3.34	3.74
Design	2.66	4.08	4.68	2.51	4.10	4.61
Advertising & Communication	2.98	3.31	3.42	2.50	3.07	3.29

Five point scale: 1 = no impact at all; 2 = little impact; 3 = neutral; 4 = medium impact; 5 = strong impact. Bold signifies the highest score, **highlight** points out second significant factor.

Considering shopping goods, e.g. a new regular jacket, or a microwave oven, the price is still the dominating factor. As the usage is more related to aesthetics, the design

becomes important. and the importance of both warranty and brand increase. Consider for a moment, who would want a fashion jacket or high-end electrical good without a warranty? The difference to convenience goods is evident in the table above.

Finally, coming to speciality luxury items, such as fine jewellery, one can notice that all of the criteria become important. All except advertising & communication are graded as medium impact or higher. Now, what is interesting to see here is that the product, brand and design are somewhat equally important. *It is the design that outweighs*, however when doing the purchase decision. The stress of design as a significant product attribute could also be heard in many of the interviews that were done for this thesis (Vicenzaoro First 2010). Nevertheless, its good to note that price still matters.

This data gives excellent grounds for the research to understand the consumer better. Also, it will be interesting to compare these results in the empirical section. If one connects that the country-of-origins (COO) refers to the interest of ethical, social, and environmental issues, it can be argued that, it is *design, brand, price, and warranty* [trust] what really matter.

2.3.4 Typical Jewellery Purchases: Jewellery Pieces, Value and Location

What do the jewellery shoppers typically buy? This information is important, given that the availability of merchandise is decisive for the customer delightedness, and keeping stock costs. In fact, some jewellery retailers have set specific deadlines for jewellery lay-bys in the shop, e.g. Michael Hill set their limit to 90 days (Michael Hill 2010). It is imperative that one optimizes the inventory in terms of what the customers actually wish to buy. Here, a good note for the managers. Therefore, when designing product offering one should first concentrate on most popular jewellery types such as *earrings, rings, and necklaces*, as Table 3 clearly shows.

Table 3. Types of jewellery pieces that are bought (Aiello et al. 2009).

Kind of Jewellery	%
Earring	36.5
Ring	34.9

Necklace	30.2
Watch	14.3
Pendant	9.5
Chain	7.9
Brooch/Pin	4.8
Other	4.8

Also, one has to examine the typical cost of a piece of jewellery, since it clearly shows in which category the jewellery buying masses are. For this is best to look at Table 4. One can clearly notice that it is pieces under USD 500, which dominate the market.

Table 4. Typical jewellery value that is bought (Aiello et al. 2009).

Total jewellery purchase	%
Less than \$500	87.2
\$500 - \$999	6.4
\$1000 - \$2999	3.2
\$3000 - \$5999	3.2
\$6000 and over	0.0

One key factor for the jewellery shopper is to where to buy the jewellery. Naturally, the traditional stand-alone jewellery stores are the main venue, but it is important to notice that price sensitive or bargain seekers seem to be attracted to discounter shopping venues (Table 5). And, what is most interesting to note is that it seems that Internet and TV jewellery shopping are currently the fastest growing channels (Aiello et al. 2009).

Table 5. Typical jewellery purchase locations (Aiello et al. 2009).

Purchase-made outlets	%
Stand-alone jewellery store	25.4
Jewellery counters at a discounter	23.8
Jewellery counters in a department store	17.5
Jewellery store inside a shopping mall	15.9
Internet jewellery site	7.9
Jewellery television shopping	3.2
Other	3.2
Jewellery catalogue	0.0

2.2.5 Consumer Segmentation

In order to conduct research on consumer behavior, common criteria to sort out different segments are needed. Commonly used criteria are *age, gender, marital status, education, occupation, economic status, and race*. All these except marital status and race, which can be considered as offensive and irrelevant questions in Finland, are good demographic indicators for the present study. To establish some expectations, it is good first to look at some present findings of jewellery buyers.

Who buys the jewellery? To whom the jewellery is bought? How men and women perceive the ethical, social, and environmental concerns in relation to jewellery? Naturally, the inclusion of gender opens up a vast and rich field of exploration and is therefore nothing less than necessary in the research. Clearly, age is equally important as gender. It reveals if there are any differences between the age groups and their preferences. It will also enable interesting topics to cross-reference.

The family income represents an interesting case for jewellery shoppers. It can be logically discussed that the average income affects a family's jewellery shopping behavior. In a US study examining jewellery shoppers (n=192), most of the families (48.6%) earn in the range of 20 000 to 60 000 USD annually (Sanguanpiyapana and Jasper 2009). Thus, it will be interesting to evaluate, for example, how the income affects the image of luxury. Table 6 illustrates this spread.

Table 6. Jewellery Shoppers Household income before-tax in the US (Sanguanpiyapana and Jasper 2009).

Household income before-tax	%
Prefer not to answer	12.0
Less than \$20 000	12.6
\$20 000 - \$39 999	27.8
\$40 000 - \$59 999	20.8
\$60 000 - \$99 999	18.6
\$100 000 - \$199 999	6.6
Over \$200 000	1.6

2.3 Consumer Perception

The key entities in jewellery shopping related to perception are *the product and its materials, the brand, the seller, the store, the country of the store, the manufacture origins of the product*, and naturally *the individual* making the jewellery purchase. In addition, it is justified to include the perception of *luxury*, since jewellery in general is considered as luxury. Overall, this should give a smooth outline to cover consumer perception.

2.3.1 Product, Brand, and Quality

The three important things, the natural triumvir of jewellery, are the product, the brand, and the quality. But when one begins to build perceptions, one needs information. In fact, when the jewellery-buying consumer often does not know a great deal of the product, the product information becomes important. This has been noted by relevant research, especially considering marketing luxury to wealthy (Mitchman and Mazze 2006 p36).

Jewellery can be defined as *credence good*. It refers to that the dominant product attributes, such as the level of quality, are hard to estimate even after using it, thus they are taken by trust (Sanguanpiyapana and Jasper 2009). Therefore, in order to make a good deal the consumers seek to do the purchase with a trusted seller, and as a result they can avoid channels where there might be confusion with the reliability or quantity of the product information. All this speaks in favour of sufficient and transparent consumer guidance, which often arguably is hard to supply elsewhere than in a jewellery store.

Brand image is built over a longer period of time. A brand creates prestige and thus branded products will yield greater returns than bulk products (Hirvikorpi and Swanljung 2008 p84; Chevalier and Mazzalovo 2008 p81). Strong brands are essential, since it is consumer's attachment to the brand that carries the business through difficult times (Chevalier and Mazzalovo 2008 p81). The branding efforts in the jewellery

market in Finland have not always been at their best: a decade ago they were harming themselves heavily with high visibility discount marketing (Saarinen 1994). Although today the situation is much better, the memory of this image can still be sensed in the public.

There are two common methods to test how brand knowledge. First, there is *spontaneous awareness* in which the target consumers are asked to spontaneously name, e.g. jewellery brand names. Then from the answers one can easily determine, which ones are the most known. In Finland, for example, the most obvious answer is *Kalevala Koru*, a brand that has found its way to the hearts of Finnish consumers.

A second common method is so called *aided awareness*. In this method target customers are introduced a list of brands and then they to choose how well they know them. This is perhaps a better choice for this research as we can study the awareness of specific brands. In fact, it would make sense to combine this with the degree of trust the individual has for a certain brand. The degree of trust and perception between national and international brands is also interesting, because it relates to the preference of either national or foreign brands.

But brands are more than subjects of trust or awareness. Brand's power comes from *mythical value*, *exchange value*, *emotional value*, *ethical value*, and *identity value* (Chevalier and Mazzalovo 2008 p89 citing research by Bernard Dubois and Patrics Duquesne 2001). Often the individuals describe their experience with archetypal journey, with distress, discovery, and romance included (Zaltman 2003 p218). *Kalevala Koru*, the Finnish jewellery brand, relates strongly story telling to their jewellery. It is a strong linkage. There always comes a story with the jewellery piece, thus inviting the consumer to join the fantasy of the Finnish national epic *Kalevala*. Thus, the brand experience could maintain a rich field of study, a good note for future research.

2.3.2 Sales Persons and The Store

Clearly, the seller affects the perceptions of jewellery to a high degree. In fact, some of today's largest jewellery retailers note that the appropriately trained sales staff makes

the business (Hill 2007). Further, it can be also argued that the consumer does not know to a great extent of the materials, quality standards, or matters related leaving a vast degree of space for the seller to influence the customer. Here the perception of the seller becomes extremely important. And, it seems that the main and most important element is trust. For the customer the numerous elements relating to jewellery buying are not to say the least, a little confusing. The trust provides the necessity for the transaction.

What role does the jewellery shop perception play? According to brand marketing literature 34% of consumers stated that they compensate their moods of feeling bad by spending. It was suggested also that building a harmonious, healing-like environment to the store could actually help to give a rise to the sales volumes (Laakso 2004, p.57). Thus, managerial implication arises. Can here jewellery shops act as a kind of nurseries for bad emotional moods?

Table 7. What customers want and what they do not want in the store (Adopted from Chevalier and Mazzalovo 2008 p.326).

Customers want...	Customers do not want...
to touch the products	to queue up
to look at themselves in a mirror	to have too many mirrors
to find things on their own	to be obliged to ask silly questions
to speak	to find unreadable labels
to be considered	to have the product they want out of stock
to get a good deal	to face intimidating sales staff

Then, what do the customers want to do in the shop? To understand this, Table 7 provides a brief summary *what is wanted* and *what is not*. Essentially, the customers want to *touch the products*, *get product information easily*, and *be able to ask* relevant questions if needed. Does this happen in reality? Although this might be self evident, is important for the jeweller or the retailer to check if these apply. After all, these relate directly to the convenience of the jewellery shopping experience.

If a jewellery store wishes to build customer loyalty, it must do more than satisfy the customer. It needs to go beyond and *delight* the customer (Arnold et al. 2005). How can

one then impress the buyer? Moreover, how can one even delight the customer? **Table 8** describes briefly how the sales person can have a positive or a negative effect to the shopping experience.

Table 8. Differences between “delighted” and “terrible” customer experience (Arnold et al. 2005).

“Customer delight” experience	“Terrible” experience
Helpful sales person	Not helpful, rude, pushy, arrogant
Friendly/nice sales person	Dishonest or too busy sales person
Not too pushy sales person	Lack of skills or knowledge
Unanticipated finding of a certain product	Higher than expected price
Unanticipated bargain/price	Could not find expected product
	Bad atmosphere

2.3.3 Country-of-origins

Commonly, *country-of-origins* (COO) is a combined thought consisting *country-of-design* (COD) and *country-of-manufacture or assembly* (COM/A). While the idea of COO normally is a balanced combination the design and manufacture dimensions, in some countries either one is considered more important. For example, the Japanese and the Italians stress COD, whereas Germans places more importance on COM (Aiello al. 2009). Thus, in consumer communication the jewellery retailer should stress either COD or COM/A depending of the national preference. This is important especially in the low-end retail jewellery, because the jewellery is often sourced from low production cost countries, while the retail chain locally does the design. Mixing the COD with COM might have considerable negative effects on sales. In consequence, if it is in accordance to the national preference, more stress should be placed on the COD dimension. There is a high probability that this would lead to better response in sales.

Although COO is important factor, it is not as important as the brand, because it does not affect product evaluation or purchase decision as much (Aiello al. 2009). Therefore, it might not be worthwhile to go deep in COO research in this study, but rather find out

which countries are known, which are not, and essentially, which countries should be avoided as COM/A due to their unenthusiastic national image in the Nordic jewellery market.

2.3.4 Luxury

One could suggest that luxury essentially is beautiful objects, while meaning that the object is the product and all the images that are attached to it. Thus, luxury is not only about the product. The purchase is basically about acquiring those objects with all those images with them. Thus, it is equally important to understand what images and emotions are attached to those beautiful objects, since the *beauty of the product is by nature subjective*. For example, one key image is *craftsmanship*. This is signalled by the tight protection of luxury brand factories from publicity (Chevalier and Mazzalovo 2008). Clearly the image is not wished to be broken.

Interestingly, there is a paradox in luxury marketing. For a successful marketing one needs *high price, high cost, craftsmanship, limited distribution, low promotional activity, and advertising with no sophisticated copy strategy* (Mitchman and Mazze 2006 p.14 citing Dubois 1998). At first these seem not to fit together, but it is actually about *controlled scarcity*. The product *needs to be known and visible*, but give the *impression of being expensive and slightly out of reach* (Mitchman and Mazze 2006 p.14). For jewellery, this means jewellery made of precious metals. Furthermore, it is interesting to measure to what extent the individual is ready to use his or her time and money to pursue items of luxury. Being able to link the controlled scarcity to a brand name makes it easier to understand the concept. Table 9 represents selected international luxury jewellery brands.

Table 9. Estimated sales of selected jewellery brands 2005-2006, where * identifies estimations (Mitchman and Mazze 2006 p.72 citing annual reports and discussions with industry specialists).

Brand name	Country	Sales (mil. €)	Of which Watch sales (mil. €)	Ownership
Cartier	France	2300*	1110*	Richemont

Tiffany	USA	1950	40*	Public
Bulgari	Italy	900	274	Public
David Yurman	USA	550	N.A.	Private
Chopard	Switzerland	500	229	Private
H stern	Brazil	450*	N.A.	Private
Mikimoto	Japan	300*	N.A.	Private
Lawrence Graf	UK	280*	N.A.	Private
Tous	Spain	200*	N.A.	Private
Harry Winston	USA	153	61	Public
Van Cleef	France	125*	14*	Richemont
Pomellato	Italy	80*	N.A.	Private
Chaumet	France	60*	35*	LVMH
Boucheron	France	40*	13*	PPR Gucci
Buccelati	Italy	30*	N.A.	Private
Mauboussin	France	30*	13*	Private
Dinh Van	France	25*	N.A.	Private
Fred	France	10*	5*	LVMH
Mellerio	France	7.5*	N.A.	Private
Poiray	France	5*	N.A.	Private

2.4 Ethics

Business ethics has been claimed to be an oxymoron (Crane and Matten 2007 p.4 citing Collins 1994). *Oxymoron* means a concept that has two contradictory elements in one concept, such as *living dead* or *virtual reality*. Thus, suggesting that *business* and *ethics* are far apart, or even opposites of each other. While some might see it so, in this thesis business and ethics are seen as two complementing concepts.

There is vast literature concerning business ethics (*for example*: Frederick 1999; Iannone 1989; Machan 1999; McGee 1992; Beauchamp and Bowie 1979; Melé 2009; Passas and Goodwin 2007), however it seems that the literature is principally about giving suggestions and guides how to run or improve towards an ethical business. For

this research, it is an interest to understand how the consumers see and perceive the ethical, social, and environmental aspect of jewellery. But what rights do the consumers have? Often the difference between the rights and the reality cause the bad sentiments and negative perceptions, thus this is a good notion.

Consumer protection has developed through the years considerably. It was not so long ago when consumer rights were mainly limited to *caveat emperor*, meaning the sole veto-right of not purchasing (Crane and Matten 2007 p.314 citing Boatright 2000, p.273). Today, depending of country and industry there are often strict standards of quality, where infringements can cause easily big public scandals. While the *UN gathers Guidelines on Consumer Protection* (United Nations 2009), it is in fact interesting to find out if the consumers actually know their consumer rights. Especially, it is interesting to study this in a country such as Finland, because the consumers should be fairly aware of their rights.

2.4.1 The Business Ethics Index (BEI)

The business Ethics Index is a simple but interesting tool to measure consumers *sentiments*, in other words *general opinions or feelings*, towards businesses and their ethical behavior (Tsalikis and Seaton 2006; 2007a,b 2008a,b,c,d). In essence, the measure consists of four basics questions that refer to the ethical experiences and perception from media. Table 10 shows that these dimensions refer both first to the past and then to the expectations of the future.

Table 10. Questions determining the Business Ethical Index (Tsalikis and Seaton 2006; 2007a,b; 2008a,b,c,d).

Personal/Past

Q1. Based on your own experiences as a consumer in the past year, businesses you dealt with generally behaved:

Very unethically Somewhat unethically Neither nor Somewhat ethically Very ethically

Vicarious/Past

Q2. Based on what you heard from others or the media in the past year, businesses behaved:

Very unethically Somewhat unethically Neither nor Somewhat ethically Very ethically

Personal/Future

Q3. Based on your own experiences as a consumer last year, how do you expect businesses in the coming year to behave?

More unethically About the same More ethically

Vicarious/Future

Q4. Based on what you heard from others or the media last year, do you expect businesses in the coming year to behave?

More unethically About the same More ethically

These questions were then asked in a series of researches from people across the globe to reveal differences in the perceptions of the ethical matters. Results were interesting to say the least. Developing this further, one could imagine that the relation to ethics vary considerably from country to another, but then when one counts in the relativity effect of culture, the results on the four questions can actually be similar or somewhat controversial. Table 11 gathers the detailed results to the questions 1-4 respectively.

Table 11. Business Ethical Index across a set of countries A (Tsalikis and Seaton 2006; 2007a,b; 2008a,b,c,d). In the table, BEIs over 100 indicate positive sentiments, while fewer than 100 indicate negative sentiments. Close to 100 are neutral.

	USA	CN	JP	IN	RU	PL	RO	BG	UK	GE	ES	TR	EG
Past experience	126.1	101.6	119.6	74.0	149.4	118.6	102.9	94.8	115.5	111.5	110.6	83.3	104.2
Media, past	87.3	77.9	77.4	66.7	144.1	98.5	95.8	66.6	93.8	75.7	73.2	80.0	43.7
Experience expectations	100.4	147.8	108.2	88.6	125.0	126.3	142.2	130.1	136.0	86.5	105.6	77.4	86.7
Media expectations	96.7	143.8	91.2	79.0	124.7	125.1	143.5	128.5	133.6	87.5	104.6	92.3	92.3

Figure 6 places the perceptions to a graphical form where a set of conclusions can be drawn. Interestingly Russian consumers seem to be in their own class, having both extremely positive ethical experiences as impressions from the media. This would certainly leave room for speculation. Taken as a whole, it is interesting to note that throughout the sample countries, all had a lot more positive experiences dealing with businesses than what was the image they received from the media. Another key estimation is that all, except the Russians, believe that things will actually become better. Nevertheless, the key observation here is that across the globe, all consumers are now expecting that businesses will improve their ethical behavior. Thus, the relevance of this research is even more important, since it deals directly with the consumer perceptions of the jewellery industry.

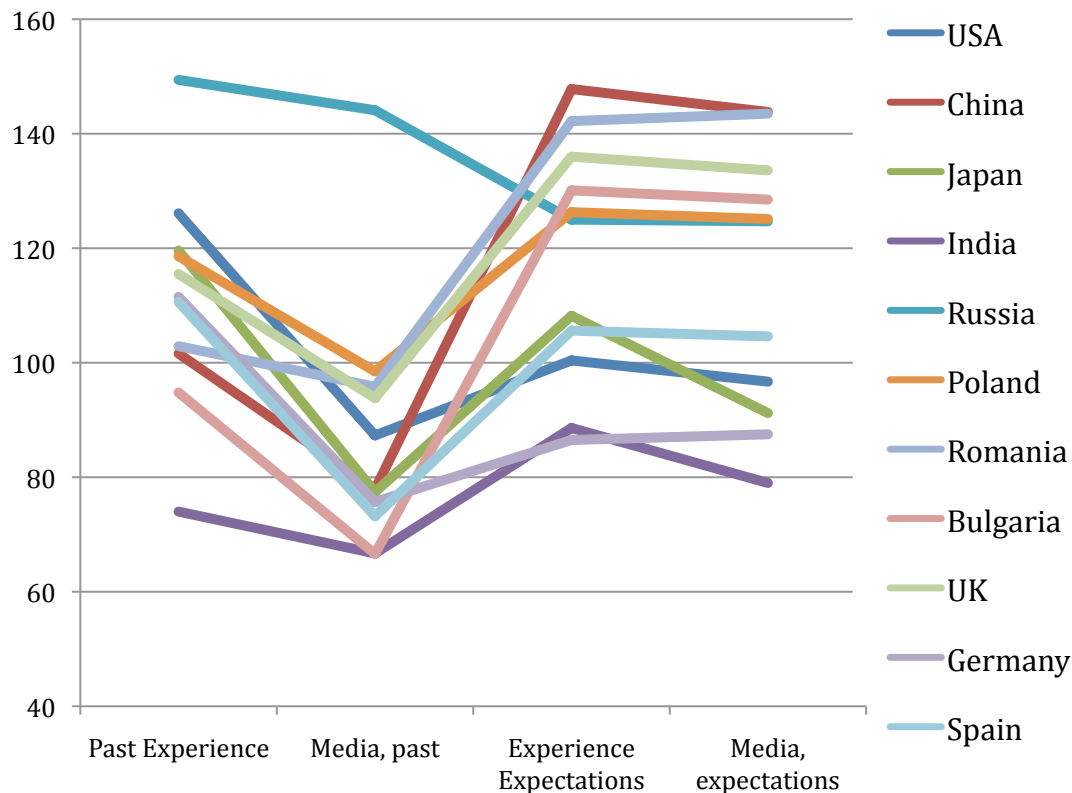


Figure 6. Business Ethical Index across a set of countries B. Values over 100 indicate positive sentiments, while under 100 indicate negative sentiments. Close to 100 are neutral. (Tsalikis and Seaton 2006; 2007a,b; 2008a,b,c,d).

2.4.2 Consumer Groups Defined by Their Ethical Behavior

It is possible to group consumers by their ethical behavior. In fact, one piece of research, perhaps to this study the most essential, revealed three distinct customer groups judging similarly ethical situations. The first and the smallest group was “*social census*” driven, meaning the group was sensing from others what would be the most ethical thing to do or act in a given situation. The second group, yet bigger in size, considered the “*probability of the outcome*” the most significant criteria in evaluating the ethical situation. The third group, equal in size to the second, placed the most weight on the “*magnitude of consequences*”. (Tsalikis et al. 2008b) Relevant to the present thesis, the groups were driven from a sample (n=206) by cluster analysis. Thus, this will

enable us to compare the results with this in the discussion. To further look at the clusters and their characteristics, note Figure 7 where you can clearly see the differences between the groups. Note that census driven were also typically the lowest educated.

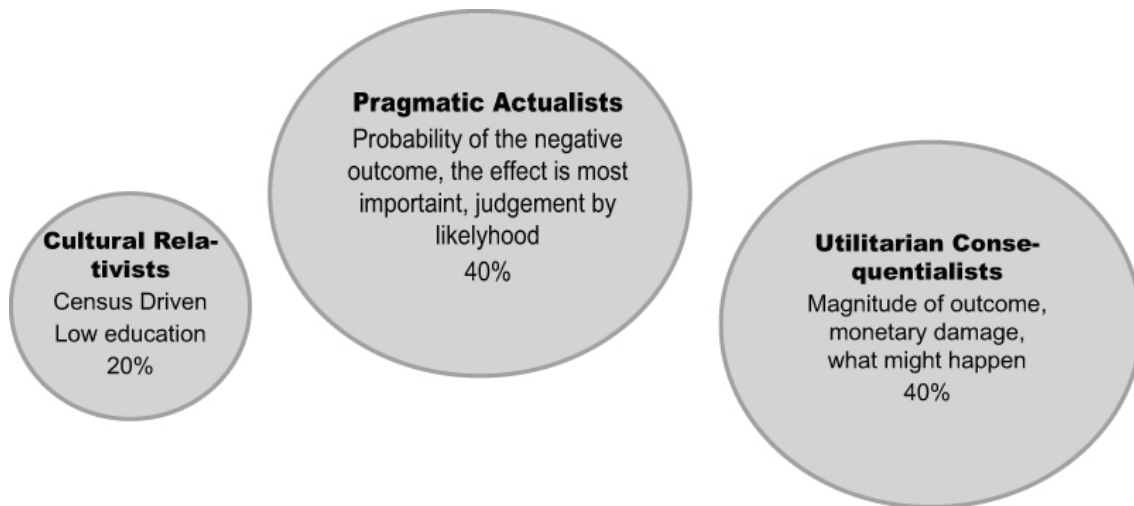


Figure 7. Consumers grouped by their ethical evaluation behavior (Tsalikis et al. 2008b) .

2.4.3 Sustainable and Ethical Consumption

Some experts claim that the current growth of consumption is unstable, and that it will lead to the degradation of our living environment (Crane and Matten 2007 p.346 citing Kilbourne et al 1997 and Heiskanen and Pantzar 1997). This argument bases on the fact that the current trend of ever growing consumption cannot be sustained in the long run. It is quite a heavy statement. Yet, it signals for desire to act and do something better. The deep understanding that we are building the World for our children drives us to be better persons. Thus, sustainable and ethical consumption.

The research and study of *personality* and *shopping orientation*, in relation to consumption, dates more than four decades back (Cunningham, 1967; James et al, 1969; Evans, 1959). In addition, note that the concept of *ethical consumer* was already indentified at that point in time (Darden and Reynolds 1971). The roots of ethical and sustainable consumption go way back, they are not a new invention.

So, what is ethical consumption? Commonly, it can be said that it is the use of *products made of recycled materials, organic products, or fair trade*, while avoiding products that use *child labor, sweatshops, hazardous materials, toxics, animal testing* and boycotting *companies with poor social, ethical or environmental record*. In addition, *minimal energy use* can be seen as one key concept. Hence, ethical consumption is a wide umbrella term. Further, one could define ethical consumption as “...*conscious and deliberate choice to make certain consumption choices due to personal moral beliefs and values*” (Crane and Matten 2007 p.341). Personal moral and values count a lot, but to what degree? One could ask in what relation do moral beliefs and values stand to consumption? Is it publicly accepted to consume considerably? Arguably, the western ideal life involves a considerable amount of plain consumption, yet not challenged to a high degree in the public discussion.

What kind of implications would all this have for jewellery? If a company could vision a path, which takes these aspects into consideration, it potentially could have great long-term benefits. In fact, while most companies profit by *satisfying* the customer (Crane and Matten 2007 p.313), successful companies do even more; they *delight* the customer (Arnold et al. 2005). Therefore, jewellery companies should ask themselves, what can they do to delight the customer? Especially in terms of ethical consumption.

At the end, it is the consumer who, weights different options, considers different information, and finally makes the choice. Consumer sovereignty, the ability to control one's own choices, is a concept that suggests that under perfect competition consumers drive the market by determining the demand, to which the firms respond with supply (Crane and Matten 2007 p.340). Further, it is suggested that the greater the degree of sovereignty, the greater is the degree of ethics (Crane and Matten 2007 p.340 citing Smith 1995). So what determines customer sovereignty?

Smith (1995) proposes consumer sovereignty test (CST). To help understand this, it can be summarized in three main elements: *consumer capability, information, and choice*. Consumer capability, describes to which extent the consumer is free from limitations in the rational decision-making. Secondly, information means the availability and quality

of information present in correspondence to the purchase decision. Thirdly, choice refers to the freedom to switch supplier. These elements pose a considerable value for the present research, since all of these can be measured fairly well in the jewellery purchase environment.

Ethical labeling is a term defined as schemes of practical arrangements aiming at making “*ethical*” products visible (Hartlieb and Jones 2009). It relates to product information: in a case a company has a sustainable and ethically oriented supply chain, it should communicate it in the labeling. This would build a cooperative advantage to the company (Strand 2009). Ethical product information, might refer to quality and source of raw materials, methods of production, and labor usage, and if such exists, it should be always communicated.

When the ethical labeling is missing, as it is often in the case of jewellery, the customer refers to three main factors, when evaluating the possible product harm. These are *explicit memory*, *implicit memory*, and a plain *guess*. The first refers to the individual remembering a bad experience from the past, where the second implies common knowledge (Jones and Middleton 2007 citing Monroe and Lee 1999). So, if the customer does not know, it becomes a guessing game, which might not be good for making the sale. Thus, ethical labels and product information are vital for the consumer to make the ethical consumption decision.

2.5 Summary and Hypotheses

In the following will be a discussion revolving around the relevant hypotheses. This builds a better structure to build the survey questionnaire. It is formulated under the three main literature topics of this chapter, namely consumer behavior, consumer perceptions, and ethics. This will sum up and gather some of the main ideas for us to proceed to the empirical section.

2.5.1 Hypotheses Related to Consumer Behavior

A recent study on female shopping orientation revealed four consumer groups: *relaxed comparers*, *traditional service seekers*, *adventure seekers*, and *efficient demanders* (Takkinen 2009). These groups can be determined by filtering data over a great number of variables and looking similarities between the respondents. This part of the present study actually will be the most interesting and contributing part. It might reveal how certain groups behave in general and what drive their ambitions in jewellery.

H 1. *There are clear consumer groups, which can be grouped by their thinking and behavior.*

Another good segmentation tool is education. The inclusion of education as a measure variable will enable two things. First, it hints how well the Finnish and US jewellery shoppers are similar in kind. Second, it will give interesting grounds to conduct cross-reference among different education groups. But first, lets look at a study of US jewellery shoppers on household income. Note how the majority is in undergraduate level of education, while 33.7% are graduate level or above (Sanguanpiyapana and Jasper 2009).

Table 12. Jewellery shopper’s education spread in the US (Sanguanpiyapana and Jasper 2009).

Education	%
High schools	2.2
High schools graduate	20.7
College	42.4
College graduate	21.7
Graduate school	4.9
Graduate-school graduate	7.1

The majority of the population are college or lower. The proportion decreases when going higher in the graduation levels. But the ability to evaluate value and price bases on the cognitive resources of the individual (Lagier and Godey 2007). If one agrees that the level of education is a suitable measurement to evaluate one’s cognitive resources, it

is justified to include it in to the quantitative empirical questionnaire. Now it will be interesting to find out if education has an effect on the sensitivity. Basically, we cannot make a justified reasoning to one way or another, rather merely to test one, thus the following hypothesis is made.

H 2. *The level of education increases sensitivity towards ethical, social, and environmental issues in jewellery.*

Coming back to the essence of consumer behavior we can draw discussion on emotions. They can be observed in three different groups: *experience*, *activation*, and *expression* (Antonides and Raaij, 1998 p. 194). The emotion can be experienced, meaning when the individual is “*tasting*” the feeling. The emotion activation causes a somatic reaction, which may not necessarily be perceivable by others. For example, a clear motivation to: *do something right at that moment*. Where as expression is an emotion that others can perceive, such as blushing or tears. These points are interesting, since the measurement of customer emotions can now be researched along these dimensions.

H 3. *From experience, activation, and expression of emotions, it is experience that is most important to jewellery shopping.*

Finally without much further more introductions a hypothesis related to *self* can be made. As *self* and *self-image* are key elements, and they relate to various questions relating to consumer behavior and rewards, there should be a measure for connectedness between *self* and *purchase behavior*. We can assert the following.

H 4. *Jewellery shopping is a common self-rewarding behavior.*

2.5.2 Hypotheses Related to Consumer Perception

When one wants to shop? When one feels good, right? It has been shown that a comfortable atmosphere increases favouring that specific shop (Takkinen 2009 p84). As this key to the present study, and it has once been verified, it can be tested again. Therefore, the following can be suggested.

H 5. *A comfortable atmosphere increases the probability to shop jewellery*

Then, how about consumer preference towards ethical products? As discussed previously, it is known that while 90% of the consumers state they think ethical issues matter, only 1% will put this concern into action (Bedford 2000). Thus, one could argue that in order to expect any positive results, it is important to make the ethical behavior as easy as possible to the consumers. Since, there clearly is consumer concern, it might be so that the consumer would in fact, prefer an “ethical” product to a “normal” product.

H 6. *Consumer will prefer “ethical” jewellery to “normal” jewellery.*

At the end it is more important is to ask if the consumer would be willing to pay more of the “ethical” jewellery. Often producing an ethically sound product, would imply a supply chain that would have difficulties in competing with the one, that has all costs pressed as low as possible. And if yes, who are the ones who would pay more? This will be an interesting component for analyzing the different consumer groups.

H 7. *Consumer is ready to pay extra for ethical jewellery.*

2.5.3 Hypotheses Related to Ethics

Do the consumers feel that they have adequate information on which products or jewellery pieces are of sufficient ethical backgrounds? Is it communicated in a way that the message gets through? Finally, do the customers feel that they can actually choose? Again these it needs to be tested by merely assuming one stand. Later, the empirical section will prove these right or wrong, and understanding can be built.

H 8. *There is not enough “ethical” jewellery to choose from.*

H 9. *On average, customers feel that they are not getting enough product information.*

What is the role of company image? How ethical the companies are perceived? Companies face pressure to improve their ethical, social, and environmental operations from various sources. These are general public’s awareness, rising expectations of

companies' responsibilities, media and public image (Jamison and Murdoch 2004). And, when one looks at certain key concepts, such as corporate disclosure, auditing, and transparency (Harrison et al. 2005), one can argue that honesty and transparency are the main tools to build successful companies. In fact, it could be even argued that company transparency improves customer loyalty. Thus, behaving responsibly and disclosing openly the behavior might give a significant boost to sales.

H 10. *Company transparency increases customer loyalty.*

These ten hypotheses are sufficient. The literature review covered the main topics relating to customer behavior, consumer perception, and ethics. This approach led to discover the main aspects of theory in order to understand the consumer sufficiently to be able to build a useful questionnaire to measure consumers' perceptions and how these affect their behavior. In addition, the chapter gave a review on the jewellery industry in general. This provides a sufficient and steady foundation to progress to the empirical section of this study.

4 Research Methods

The empirical section of this thesis identifies how consumers perceive ethical, social and environmental issues in jewellery, and how they behave as jewellery shoppers. The research was carried out using quantitative empirical method. A questionnaire was designed based on the theory and observations set forth in the literature review and sent *via* email to a sample size of roughly to 10 000 Finnish recipients. The obtained data, consisting of 407 individual responses, was then analyzed using basic statistical methods and two advanced methods, factor and cluster analysis. This approach enabled to identify common elements in customer behavior. The respondents were then grouped based on these factors. Finally it was examined how these groups differ in their shopping habits, and especially in their spending.

Simultaneously before, during, and after the empirical survey there were numerous company and jewellery specialist interviews carried out. In total there were roughly

sixteen different formal and informal interviews. These provided rich information and direct knowledge on important topics. In addition, some key remarks helped to guide this study to ask the right questions from the right people or audience. In the following is a list of the professionals and their respected companies in the interview order how they were carried out. Note that these were conducted all in all in Finland, Italy, Australia, and in England. This introduced a substantial amount of international perspective while helped to identify and trace which elements were common in across the different countries in the jewellery industry.

- Aki Syväniemi, Production Manager, Kalevala Koru, Helsinki, Suomi-Finland.
- Ilkka Ruohola, CEO, Kultakeskus, Hämeenlinna, Suomi-Finland.
- Alf Larsson, CEO, Association of Finnish Goldsmiths, Helsinki, Suomi-Finland.
- Petra Nikkinen, Communications Manager, Kalevala Koru, Helsinki, Suomi-Finland.
- Kai Minkkinen, CEO, Finngold (Timanttiset), Tampere, Suomi-Finland.
- Richard Fox, Designer Silversmith, London, UK.
- Vicenzaoro First International Jewellery Exhibiton, 2010 Jan 16 – 21. Numerous interviews. Vizenca, Italy.
- Robert Boyce, Jeweller, Brisbane, Australia.
- Brett Currie, Production Manager, Michael Hill Jeweller, Brisbane, Australia.

4.1 Introduction

The survey was prepared in Finnish language. It was sent on Monday morning 9.30am on the 14th December to 10 000 Finnish recipient aged 18 and above. The invitation to participate to the survey was sent as an email, with the subject field chosen as “*Pro Gradu-tutkimus korualasta, tutustu 18.12 mennessä*”. This translates to English as “*A Master’s thesis on jewellery, check this out before 18th Dec*”. The subject was chosen to be professional and discrete to cause as little anxiety as possible, due to the fact that the invitation was mass emailing. The invitation was drafted as *an html message*, while

there was *a txt version embedded*, in case the recipient would not have html-based browsers to read the invitation. The original invitation is presented in Appendix III.

The performance statistics of the emailing campaign were interesting. First, the low overall bounce rate is common only when using emailing registers that have been in use before. Thus, by this indicator it can be assumed that these individuals have been a targeted in an email campaign rather recently. Second key indicator reports how many invitations were opened in emailing. This measurement bases on a technical detail, in specific, in sending a 1px times 1px image embedded in the html email. When the individual opens the email, the image is uploaded. Thus it can be recorded how many emails are opened. Naturally, when the individual uses text-base browser to read the email, this does not occur. However, today the majority uses html bases email readers, and thus this indicator can be regarded as reasonably trustworthy.

Table 13. Key indicators of the email campaign

Indicator	Number	Success Ratio-%	Of overall ratio-%*
Sent to total	10 503		
-Bounces	28		0.3
Succeeded invitations	10475		99.7
Opened invitations	1665	15.9	15.9
Unique clicks to survey	730	43.8	7.0
Surveys started	465	63.7	4.4
-Interrupted surveys	58	12.5	0.5
Surveys completed	407	87.5	3.9

**Calculated from succeeded invitations*

To comment on the open-rate number itself, one can say that this email campaign got a reasonably good response rate. While Figure 8 describes some success rates by industry, it can be commented that this campaign got actually a moderate response from the recipients. To explain, the subject line is typically the “*advertisement*” to open the email. When choosing a conservative subject line, a one that describes the email

contents well, one will naturally decrease the number of people who will open the email. However, when this is done, the people who open the email are in fact, more willing to read the contents of the email. If they feel content with what they have read they will proceed.

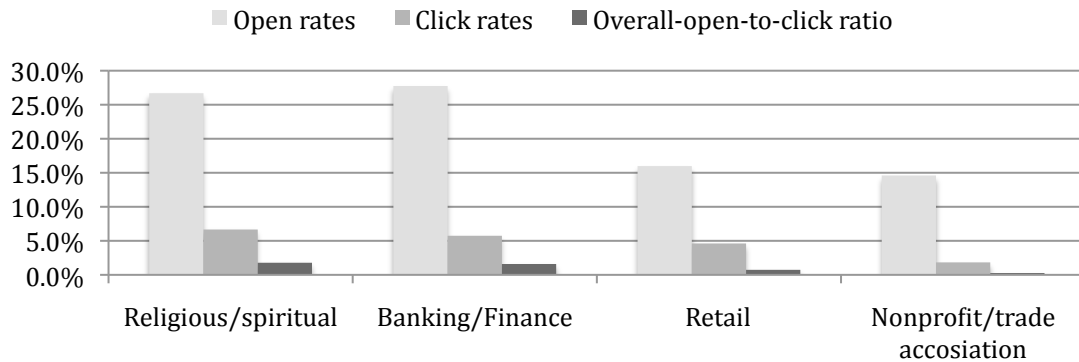


Figure 8. Some typical open and click rates of emailing campaigns, and their overall-open-to-click ratio. (Mailer Mailer 2009)

Therefore, the end result is a combination of people who open and who click forward. And, while we consider how many clicked to this survey, we can notice that it was an extremely high ratio of 43.8%. When one compares that with the typical industry click-rates it is clear that this succeeded far beyond a normal scope. Taking both open rate (15.9%) and the click rate (43.8%), and calculating the overall success ratio, one can find it to be 7.0%. Comparing to normal success rates, which can be noted from Figure 8, this is an extremely good ratio. Thus this survey campaign can be seen as highly successful.

Finally, let's have a look at the behavior in the questionnaire. Interestingly, although many clicked forward to the survey, not as many did continue, since only 63.7% of the individuals who clicked forward were registered as people who started the survey. Also, of these 12.5% did not finish the survey, whereas the end total of completed surveys was then 407. While comparing this to the successful email invitations, it can be noted that in comparison to the successful email invitations a total of 3.9% filled the survey. On the other hand, if one considers individuals who opened the email as a comparison

point, then a ratio of 24.4% can be derived as a response rate. Thus, it can be argued that the email campaign was very successful. The translated questionnaire is presented in Appendix V.

4.2 Sampling Method and Data Collection

The population of this study is the Finnish speaking population aged 15 and over. To obtain the sample, services of Roottori Oy was rendered. Their register, of 1,5 million emails, is derived from a number of partner registers and overall it represents roughly 44% of individuals with email address of Finnish nationality. (Fonecta Digitaalinen suora 2010). Thus, by taking a sample of 10 000 email recipients of this whole, the definition of *systematic sampling* arguably is met. However, there is one drawback. Due to technical matters, it is not possible to draw a complete random sample of the total 1.5 million address database. Thus, for this research the 10 000 recipients were drawn from the registers of *apinat.fi*, *etuklubi.com* and *02.fi*. Apinat.fi is a popular (nearly 80 000 Finnish users) service where user can send sms-messages, 02.fi is serveve that lists product and service providers, and etuklubi.fi is the e-portal hosted by Finnish population registry office to provide information. The use of several registers was to make an increase in the random nature of the selection process. Despite this resembles of *quota sampling*, it can be still argued that overall the sample was more systematic. Together with the large sample size of 10 000 and the evident success of the survey, it is reasonable to argue that the sampling process is sufficient, and that the *total survey error*, a combination of *random sampling error* and *non-sampling error*, remains insignificant.

The questionnaire was designed to be user friendly, thus it was grouped in to five different subsections. Each subsection was in its own respected page, and each page begun with an open-ended question. The questions were designed to answer the topics discovered in literature review. Some questions however, were placed there to test the consistency and accuracy of past results related to the theory.

Most significant part of the questionnaire were the Likert-scale attitude claims representing questions 3, 4, 6, 15, 16, 17, 18, and 26. Together these claims measured respondents' perceptions on 77 individual claims. This provides a rich set of variables to be analysed using the factor analysis. Likewise, using Likert scale, questions 24 and 25 measured the respondents' knowledge on how well they knew certain countries and how did they trust certain jewellery brands. However, as these were not similar to those 77 questions in their contents they are to be left out from the factor analysis.

Open-ended questions got remarkable amounts of answers. Questions 1, 5, 14, and 22 got responses 388, 278, 268, and 322. This is significant, since given the total number of respondents were 407, thus the majority gave their answers on all accounts. Also, it is good to note that 69 people gave also open feed back at the end of the questionnaire. This can be seen as a signal that the respondents, in general, were happy to answer the questionnaire.

In addition, some questions were added to gain valuable information on the jewellery purchasing behavior. Specially, in terms of *what do the respondents buy, who they buy to, on what occasion, and where*, as well as their *spending* on jewellery. These variables will enable rich discussions after factor and cluster analysis has been conducted.

4.3 Research Data

When the questionnaire was sent it collected over 95 % of the overall responses to the survey within four days of the submission. The timing of the email campaign was chosen to maximise the open- and click rates, since typically Sunday or Monday mornings are the best times to send emails (Mailer Mailer 2009). To compare how well the survey represented the population of Finland study Figure 9, which compares the age spread taking to account people between 18 and 60 years. Note that the survey gathered in proportion more respondents in the groups above the age of 35, and less in proportion below 35. When one takes the assumption that younger people use more Internet, this seems peculiar, but nevertheless might be explained through the registers

that were used in the emailing campaign. Overall, people below 18 were accounted only as 2.2% participating the survey, where as people above 60 were 10.3%. To sum up, the survey gathered a decent sample of Finland in terms of age, and therefore it can be argued that this fact is the first signal that the results can be applied to the survey population as whole.

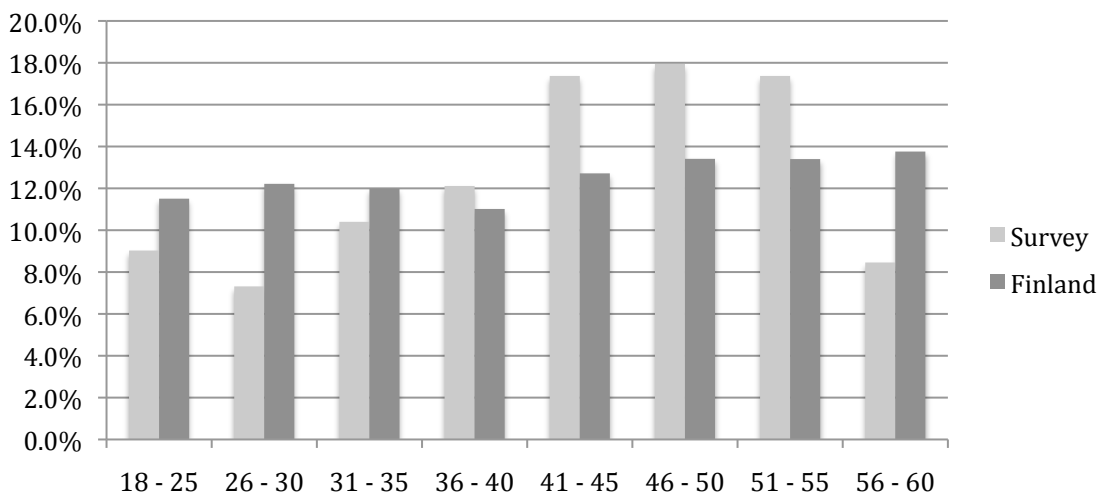


Figure 9. Age spread in Finland and in survey respondents taking into consideration the people aged between 18 and 60 (Statistics of Finland 2009a).

Next, looking at the income spread in Figure 10, it can be noted that in the range above 20 000 Euros the survey fits with the population of Finland nearly perfectly, since these are in correct proportion to each other. The only concern is the relatively small proportion of 22.8% those earning less than 20 000 Euros. Given the great contrast to the rest of the Finnish population, it first seems that there is a bias. However, it can be noted that the Finnish statistic figure includes all of the population. The younger generations included in this number naturally push the proportion higher. Also, if the population aged below 18 are dismissed, representing 23.1% of Finnish population (Statistics Finland 2009a), in the Figure 10 the people earning less than 20 000 Euros would drop to 28.4%, which actually is extremely close to the survey result. Taking the discussion above in to consideration, it can be stated that as well the survey

respondents' income spread in relation to Finland signals that the survey sample fits well to the survey population.

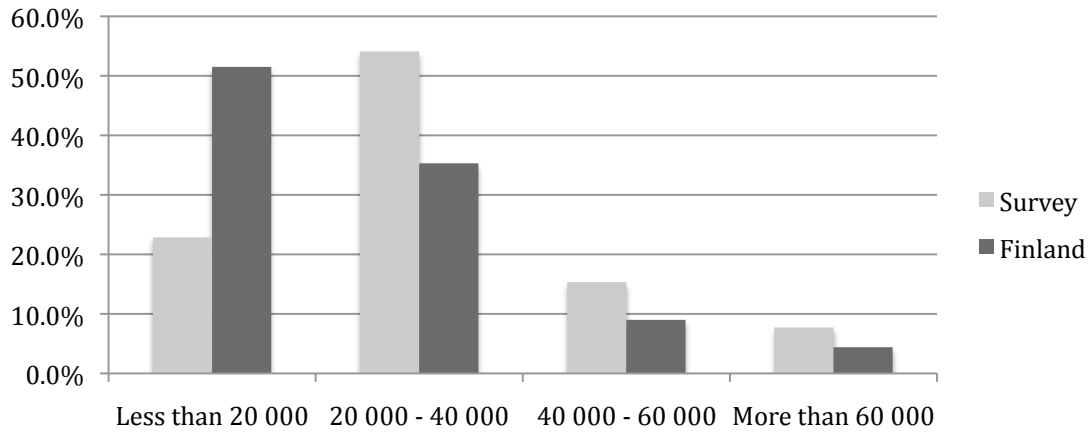


Figure 10. Pre-tax income spread in the survey and in Finland in general (Statistics of Finland. 2009b)

Finally, looking at the education metrics of the survey respondents and Finnish population in Figure 11, it can be noted that there again are small differences. It appears that overall the survey collected individuals that were educated better in proportion towards the Finnish population. Especially, looking at the figure of people without any other degree than compulsory school. Naturally, it might be suggested that on average people with low education levels do not use Internet or email with the intensity than people with education. Or, then they might just not be interested to participate in a thesis survey for the lack of motivation. This might explain the bias also in the higher education, since it seems that the survey collected in all of the higher education groups more respondents than there are in proportionate to the rest of the population. However, although there is a clear bias, the trends arguably are not that far apart from each other, and thus it can be said that the survey sample again represents the survey population of Finland fairly well.

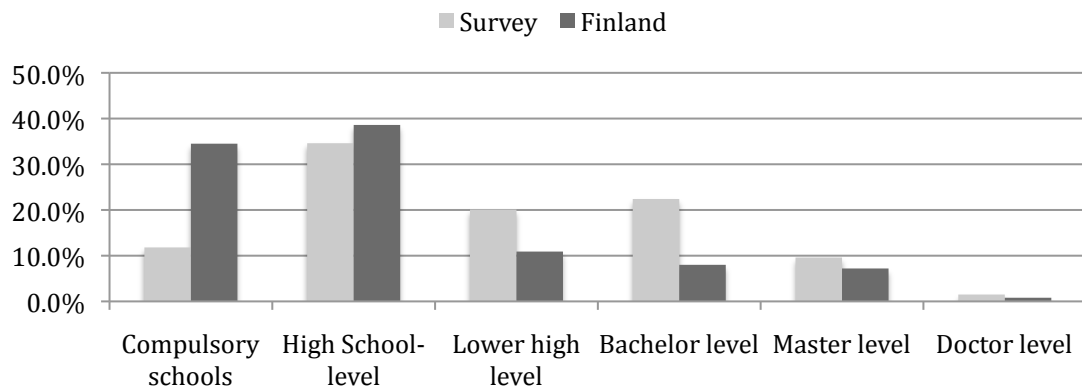


Figure 11. Respondents’ and Finland population’s education (Statistics of Finland. 2009c).

Overall, the survey sample is well suited for the research. First, the age characteristics match the population of Finland. Second, income levels are a fit. Third, the education spread matches fairly well with Finland. Thus, it can be stated that the survey sample represents sufficiently well the population, being Finland’s jewellery buying individuals. Finally, it should be also noted that participants were mainly females, accounting for 72.1 %. The effect of this is examined later.

4.4 Statistical Methods

Three advanced multivariate techniques are used to analyse the data. First, factor analysis is used to group the 68 different attitude claims to factors behaving similarly. The factors will help to understand the dimensions within the different perceptions in reflect to ethical, social, and environmental issues in jewellery. Second, with these factors the respondents are grouped using cluster analysis. This method will reveal the consumers groups that are present in the jewellery shopping. Finally, these groups are analysed according to their behavior using regression analysis. Also, some basic statistical analysis tools are used to complete the analysis, namely *chi-square*, *t-test*, and *analysis of variance*.

4.4.1 Chi-square Statistic

The chi-square statistic (χ^2) measures the statistical significance of association in cross-table presentations of data (Malhotra and Birks 2007, p.521). This measurement tool utilizes the null hypothesis, H_0 , that there is no association between the variables. Then it compares the expected variable distribution frequencies, denoted by f_e , in the cross-table to the actual observed frequencies, f_0 , to calculate the chi-square statistic. Assuming the cross-table has r rows and c columns, with the sample size of n observations, the expected frequency for each cell f_e , can be calculated as

$$f_e = \frac{n_r n_c}{n}, \quad (1)$$

where f_e = expected frequency for each cell,
 n_r = total number of rows,
 n_c = total number of columns,
 n = total number of observations.

Then the value of the chi-square statistic, χ^2 , can be calculated as follows

$$\chi^2 = \sum_{all\ cells} \frac{(f_0 - f_e)^2}{f_e}, \quad (2)$$

where χ^2 = chi-square statistic,
 f_0 = observed cell frequencies,
 f_e = expected cell frequencies,
 n_{rc} = all cells in the cross-table.

One important matter is using chi-square statistic is the number of degrees of freedom, df , associated with the measurement. In a cross-table analysis, it is the product of the

number of rows and columns deducted by one, defined mathematically as $df = (r - 1) \times (c - 1)$. Together with the degrees of freedom the chi-square statistic is evaluated in chi-square distribution to decide whether to reject, or not, the null hypothesis, H_0 (Malhotra and Birks 2007, p.522). The use chi-square test requires that maximum of 20% of the expected cell frequencies are lower than 5 and every cell's expected frequency is higher than 1.

Always before commencing the use of the described method the statistical significance level should be decided upon. Commonly, this usually is 0,001, 0,01, or 0,05. This measures the risk of relevance of the null hypothesis. According to level of the calculated statistical significance, the number of degrees of freedom, and the value of chi-square statistic, the results of the cross-table can be interpreted (Manninen 2009).

4.4.2 Student's t-Test of Difference of Means

The student's t-test is used to compare single interval dependent variable's mean toward another independent variable's mean (Garson 2009). For example, a comparison between men and women on a certain statement in their respected means would constitute one. To further exemplify, one statement to evaluate could be "*I sometimes buy jewellery to reward myself*". This could be then surveyed in the Likert scale of 1 to 5 to measure how the respondent agrees to the statement, and then tested with the t-test to find if there are differences between men and women.

There are three types of t-tests: *One-sample t-tests*, *Independent sample t-tests*, and *Paired sample t-tests*. Commonly, the t-test is used with fairly small sample sizes (less than 30) and with higher sample sizes one another similar test, *the normal curve z-test*, is used. Assumptions of the test are that the data follows normal distribution approximately and that the variables are roughly similar. Mathematically the t-test can be described as

$$t = \frac{(m_E - m_C)}{\sqrt{\frac{(s_E^2 + s_C^2)}{n}}}, \quad (3)$$

where t = t-test statistic,
 m_E = the mean of experimental condition,
 m_C = the mean of control condition,
 s_E^2 = the standard deviation of experimental condition,
 s_C^2 = the standard deviation of control condition,
 n = in the case of equal sample sizes, the sample size in both groups (Garson 2009).

Thus, the t-test allows a comparison between two different groups. It enables the interpretation if the groups differ in statistical relevance. Commonly, a level of 0,05 statistical significance is selected for the test (Malhotra and Birks 2007, p.527).

4.4.3 Analysis of Variance (ANOVA)

The analysis of variance (ANOVA) is used to compare how the means of two or more populations, or groups, differ from each other. For this analysis the null hypothesis is that all means are the same for each of the groups. In its simplest form, ANOVA must have a *metric* dependent variable, and one or more *categorical* independent variables (Malhotra and Birks 2007, p.546). For example, the preference of the product in a ratio scale, as the metric variable, and the usage in categorical variable. Further, categorical variables are also called as factors. In *one-way analysis of variance* only one category, or factor, is used. If a more extensive analysis is needed with several factors, then the *n-way analysis of variance* should be used. An advanced ANOVA, *Analysis of Covariance (ANCOVA)*, procedure is used when the set of independent variables consist both of metric and categorical variables (Malhotra and Birks 2007, p.546). Overall, a

good example of the use of ANOVA is analysing how different customer segments behave in their spending.

Analysis of variance is useful especially when an analysis of several factors is needed. For example, if ten individual t-tests are conducted to compare two different groups with statistical significance level of 0,05, it is actually quite probable that one of them is not accurate. However, ANOVA groups these means together and evaluates their statistical significance as whole. Thus, the reliability of the larger factor estimation is better.

The F-value is the key in this test. It tests if the means the groups exhibit are different enough to not have occurred by chance. If this is true, then multiple comparison tests are used to explore which independent variables explain most of the relationship (Garson 2009). The complete reporting of ANOVA consists of the means, standard deviations, group sizes, F-value, and of the statistical significance.

4.4.4 Factor Analysis

Factor analysis finds underlying similarities from the variable sample, which measures the phenomena. These groupings of similar variables are identified as factors. The idea is, that certain qualities of the observed phenomena cannot be measured with only single variables; instead they are measured by groups of variables that then form the factors. Thus, through grouping of the variables the phenomena can be investigated (KvantiMOTV 2009), or other words the information can be summarised in to meaningful dimensions. Factor analysis, has widely been used in marketing research in areas such as *market segmentation, customer grouping, determining customer choice, investigating brand attributes, understanding media consumption habits, or indentifying characteristics of price sensitive consumers* (Malhotra and Birks 2007, p.648). Also, the use of this method is not unfamiliar to consumers in the case when their attitudes are evaluated through ethical and social responsibility (Kavak et al. 2009; Rugimbana 2008). It offers a powerful tool to estimate indirectly, by grouping, phenomena that otherwise would be hard or even impossible to study.

There are two main approaches in using factor analysis. First, there is *explorative factor analysis* (EFA), which approaches the analysis from the perspective of little, or no, previous knowledge of the number and quality of the factors. This method tries to indentify and measure new factors from a given set of variables. In the course of this analysis a number of different factors can then be found. Second, there is *confirmatory factor analysis* (CFA), which assumes already existing factors, which are then tested to another set of variables. Thus, an existing understanding can be further strengthened or then declared faulty. Of these two approaches, the first one, explorative factor analysis is more common. (KvantiMOTV 2009)

Kaiser-Meyer-Olkin index is used to measure the appropriateness of factor analysis. Commonly, if the values of this index are high, meaning in the range of 0,5 to 1,0, factor analysis is suitable for correlation analysis of the variables. Values below 0,5 imply against the use of factor analysis (Malhotra and Birks 2007, p.648). The Kaiser-Meyr-Olkin index received a value of 0.864, which indicates that the factor analysis was successful and that it could be well applied to the research data.

Bartlett's test of sphericity is another suitable test to measure the appropriateness of the use of factor analysis in correlation analysis of the variables. This method tests the null hypothesis that variables are uncorrelated in the population. If variables are uncorrelated in the population, the correlation matrix should constitute as an identity matrix, a matrix where each variable are perfectly correlated with itself (=1) and not correlated with other (=0). With relatively high correlations among each other, the null hypothesis can be rejected and use of factor analysis is thus justified. In an identity matrix diagonal values are 1 (correlated with it self) and off-diagonal are 0 (correlation with other), thus a high chi-square statistic rejects the null hypothesis (Malhotra and Birks 2006, p. 651). Given the great size of the correlation matrix, it being a 39x39 matrix, it was not suitable to include it in appendixes, however its chi-square test revealed $\chi^2 = 7163.8$, $df = 741$, and $p = 0.000$, therefore we can safely conduct factor analysis based on these correlations. Furthermore, one important rule of thumb is to have four or five times bigger sample size than there is observed variables (Malhotra and Birks 2006, p. 649).

However, in this research this does not present a problem, since for 77 included variables in the factor analysis there are 407 observations, and thus the ratio of 5.3 satisfies this rule.

Factor analysis is similar to multiple regression analysis in sense that it expresses each variable as linear combination of underlying factors. If each variable is standardised the mathematical form of the variable can be represented as

$$X_i = \sum_{j=1}^m A_{ij}F_j + V_iU_i, \quad (4)$$

where $X_i = i$ th standardised variable,

$A_{ij} =$ standardised multiple regression coefficient of variable i on common factor j ,

$F_j =$ common factor,

$V_i =$ standardised regression coefficient of variable i on unique factor j ,

$U_i =$ the unique factor for variable i ,

$m =$ number of common factors (Malhotra and Birks 2007, p.647).

The common factors themselves can be represented as linear combinations of the observed variables as

$$F_i = \sum_{j=1}^k W_{ij}X_j, \quad (5)$$

where $F_i =$ estimate of i th factor,

$W_{ij} =$ weight or factor score coefficient,

$k =$ the number of variables (Malhotra and Birks 2007, p.648).

To minimise the number of variables with high loadings on a factor and therefore allowing a more precise interpretation of the data, the use of orthogonal rotation

varimax procedure is included (Malhotra and Birks 2007, p.656). In addition, to introduce an additional test to verify the consistency of our results Cronbach's Alpha will be used. The method is the average of all split-half coefficients of all possible ways of splitting the scale items. In other words, it measures the internal consistency of the data. This coefficient's values are typically between 0 and 1, when 0,6 or less is considered unsatisfactory (Malhotra and Birks 2007, p.358 citing Cronbach 1951). Thus, with a high Cronbach's alpha the factor analysis can be verified to have a sound setting.

Factor loadings are simple correlations between the factor and the original variable. Naturally, higher loadings indicate better correspondence between the variable and the factor. To assess the minimal cut off value, a popular value to pick has been .30 (Cudeck 2000, p.287), while values greater than .50 are considered necessary for practical significance (Hair et al. 2006, p.129). Note that negative factor loading represent correspondence to the opposite or negative value of the variable. Another, one key characteristic of the analysis is the *communality*, h^2 , of each variable. Communality explains the degree of variance the variable shares with other variables in the analysis. Also, it is the proportion of variance explained by the common factors (Cudeck 2000, p.270).

The selection of the number of to-be-included -factors in the analysis represents an important phase of the factor analysis, and can be regarded as the most difficult phase (Cudeck 2000, p.277). In order to do the selection, certain criteria must be implemented. Most commonly used is the Kaiser criterion (K1), in which the factors with less than 1,0 are left out of the analysis (Garson 2009). *Eigenvalues*, also called as characteristic roots, themselves are another important attribute of the factor analysis. They measure the variance in all of the variables, which are accounted for by that factor. Another words, if a factor has high eigenvalue ($> 1,0$) it contributes significantly towards the analysis (Garson 2009). The opposite is true. A factor with relatively low eigenvalue explains very little and thus do not contribute additional understanding. Also, a variable, by default, in the beginning has eigenvalue of 1,00, and values under this do not have

additional explanatory value. Further, to define the most suitable number of factors, there exists numerous additional methods, such as *scree plot*, *Humphrey-Ilggen parallel analysis*, *minimum average partial (MAP) criterion*, *variance explained criteria*, *Joliffe criterion*, *mean eigenvalue*, *comprehensibility* (Garson 2009). However, the usage of such comprehensive and numerous methods ventures more over to the science of statistics and thus is not necessary for this research. Here, in this research we constrain ourselves to utilise Kaiser criterion. Overall results and SPSS prints of the factor analysis are presented in Appendix VI.

4.4.5 Cluster Analysis

Cluster analysis, also called as *classification analysis* or *numerical taxonomy*, is a method classifying sample objects or respondents to similarly behaving groups, called clusters. These groups exhibit differences to other groups and similarities within the group. In order to conduct a cluster analysis, no *a priori* data of the behavior of groups is needed, the survey data is sufficient for this. Cluster analysis has been used widely in marketing in fields such as *market segmentation*, *product or service benefit segmentation*, *understanding buyer behavior*, *identifying new product or service opportunities*, *selecting test markets*, *reducing data*, and *identifying customer purchase strategies*. (Malhotra and Birks 2007, p.672) Also, cluster analysis has been used in the field of consumer ethics for example in investigating consumer's ethical beliefs across countries (Auger et al 2007). The proceeding of this research is to conduct a cluster analysis based of the factors that are found in the factor analysis, since the factors sum up and concise the key information on customer perceptions and behavior.

In comparison to factor analysis, it should be mentioned that cluster analysis does not come with such extensive background in statistical reasoning. In fact, the method is built around relatively simple procedures, as the most clustering methods are heuristics, and are conducted *via* computer algorithms. Cluster analysis contrasts clearly with ANOVA, discriminate analysis, factor analysis, and regression analysis, which all are supported by extensive background in statistical discipline. Despite that cluster analysis

has significant statistical value, its fundamental simplicity needs to be recognised (Malhotra and Birks 2007, p.673 citing Sambandam 2003 and Everitt et al. 2001).

Variables that are selected to be included in the analysis need to be of similar kind and quality (Malhotra and Birks 2007, p.674). However, this does not present a problem in this study since the variables are the factors that were created in the factor analysis. Normally, the variables should be looked from the point of similarity, consistency, and relevancy towards the researched phenomenon.

In order to begin grouping the survey participants, or objects, in different groups some measure is needed to assess how similar or different the participants are. Commonly, this measure is the distance between the pairs of objects. Despite, there are numerous ways of calculating this difference; the most commonly used measure is the *Euclidean distance*. Euclidian distance is calculated as the square root of the sum of the squared differences in values for each variable (Malhotra and Birks 2007, p.675), or in mathematical form as $\sqrt{x^2 + y^2}$. It is important to make a notion of the distance measurement method, since it has an impact on the results of the analysis (Malhotra and Birks 2007, p.675).

There are two main procedures for clustering, namely *hierarchical* and *non-hierarchical*. In general, in the hierarchical method data objects, or participants, are grouped first by the basis of similarity. New pairs are averaged and then reinserted to the space of objects and then another closest pair is found. This is then continued until there are sufficient amount of groups left. Another, method is non-hierarchical method, which is commonly referred as *k-clustering*. In this method the cluster centres, also called seeds, are found after which they are grouped with objects nearby (Malhotra and Birks 2007, p.676). The two procedures approach the clustering from opposite approaches, however often their results are the same. One difference, for the benefit of k-clustering, is that the latter is more suitable for large data sets since it does not require such extensive computing (Garson 2009). For this research the k-clustering is chosen, given the data set is very large.

4.5 Validity and Reliability

When examining how well the research represents the truth two aspects arise, *reliability* and *validity*. Of these two, validity relates to the fact how well the fundamental questions relate to the study (Jackson 1997, p223). Essentially it is about how truthful the research is and it relates to the selected measures, in this case the research questions. To overcome matters in validity, the research is valid if the questions are based in the existing theory (McDaniel and Gates 1998, p236). This was undertaken in the current research by relating the questions in the theory covered in the literature review. Not only this approach allowed the discovery of many important questions, but also it simultaneously allowed the testing of old research. Thus, overall the validity of this research can be regarded as good.

A good reliability refers to the research being free from random error, so that the results are consistent across time (McDaniel and Gates 1998, p231). This means practically that the research measures the population accurately. Earlier, when describing the sampling method, it was explained that of *random sampling error* and *non-sampling error* together are on good standing in the current research, and that the research gives a good representation of the Finnish speaking population overall.

However, there are some details that need to be discussed. The online web survey was constructed in a way that it did not allow empty answers or incomplete answers. Therefore, in the data there exists no response error of this kind. Nevertheless, there is one another kind of response error. This is the number of non-completed surveys, since in the case of the participant wishes to leave the survey the only choice is to forfeit it by closing the web survey window. The survey program registers this as non-completed survey, and thus the sum of these proportionate to the total amount of participants reflect the response error. However, taking into account only the completed ones filters out this error caused by incomplete survey responses. This leads to a sample size of 407 responses.

One classical source (Armstrong and Overton 1977) indicates that the last participants of survey are similar to those who did not complete the survey. Thus, in order to check the effect that the non-completed surveys had on the whole a comparison between the last participants to the participants in general is needed. Then if these two groups reflect the same behavior, we can safely assume that the non-completed surveys did not have a significant effect on the results of the research. A brief analysis on the first 30 respondents and the last 30 respondents showed only an overall difference of 0.8% in the average values in the two groups responses. Thus, it can be safely assumed that the filtering of the uncompleted responses does not affect the survey results.

Internal consistency is another key element in measuring reliability. There is one suitable method called the Cronbach's alpha. It was used to measure the internal consistency of the underlying variables in the factor analysis. Overall, it can be said that values under 0.6-0.7 suggest of low internal consistency, and that the reliability can be questioned (Lehman 2005, p141). In the factor analysis, all factors received higher than 0.7 values for Cronbach's alpha, which can be regarded as a good sign of the internal consistency of the results.

Then, concerning the reliability of the cluster analysis, it can be said that the method itself contains a considerable degree of randomness in the terms of how the clusters centres are chosen in the beginning. Thus, the application of reliability analyses can be challenged in this respect. However, this research provides the information to evaluate the cluster fit with other number of chosen clusters, and therefore leaves the reader the possibility to evaluate other options. Yet, on the basis on the coming discussion, in the cluster analysis results, it can be said that the cluster analysis is conducted in a successful manner.

On the basis on this discussion, it can be said that the validity and reliability of the research are on good standing, and that the results can be regarded to present well the population.

5 Results, Analysis, and Discussion

The mere quantity of results that were obtained from the empirical research forces the present study to focus on some key findings. Although focus enables fairly good answers to the research questions, it leaves room for further investigation. Overall, the analysis provides rich and to some degree a novel understanding of jewellery shoppers.

To begin with, it is good to note that there was clear bias towards female respondents in the research, since female respondents consisted of 72.1% of the total. To understand how this affects the results of the study we can take a look at Table 14, which interestingly shows that it is on average more important for the women that the workers get a sufficient pay than it is for the men.

Table 14. Gender differences in the question “*It is important to me that the person producing the jewellery piece gets a sufficient pay for the job*”

Indicator	Male	Female
I fully agree	31.3 %	45.0 %
I agree to some extent	54.5 %	46.4 %
I can not say or I disagree	14.3 %	8.7 %
	100%	100%

$\chi^2 = 7.30, df = 2, p < 0.05$

Thus, it is good to note this through this study, and be aware and critical of the effects that this may impose. However, one could argue that women buy more jewellery than men, and as such the results apply. In addition, this hints on the possibility that women are more sensitive to the ethical matters than men.

In the results it is common to see two separate groups in their attitude to certain claims. For instance, in Figure 12 jewellery shoppers are clearly divided in two groups in respect to impulse shopping, having about one third confessing that they shop on impulse. Then to give an understanding of customer knowledge on industry and the manufacturing processes, notice how the vast majority point out their thin knowledge,

in Figure 12. In fact, when counting together the replies in “I fully agree” and “I agree to some extent” less than 17 % state they can objectively evaluate ethical origins of jewellery. In addition, the same analysis for the awareness of the manufacturing processes brings this proportion to only 12 %. Thus, it can be pointed that the majority of jewellery shoppers are unaware of what it takes to make the product. In addition, most of the industry professionals noted in the interviews that the customers are not well educated in jewellery, instead they come to buy a ready-made product (Vicenzaoro First 2010). Thus, the survey and research findings are aligned in this matter.

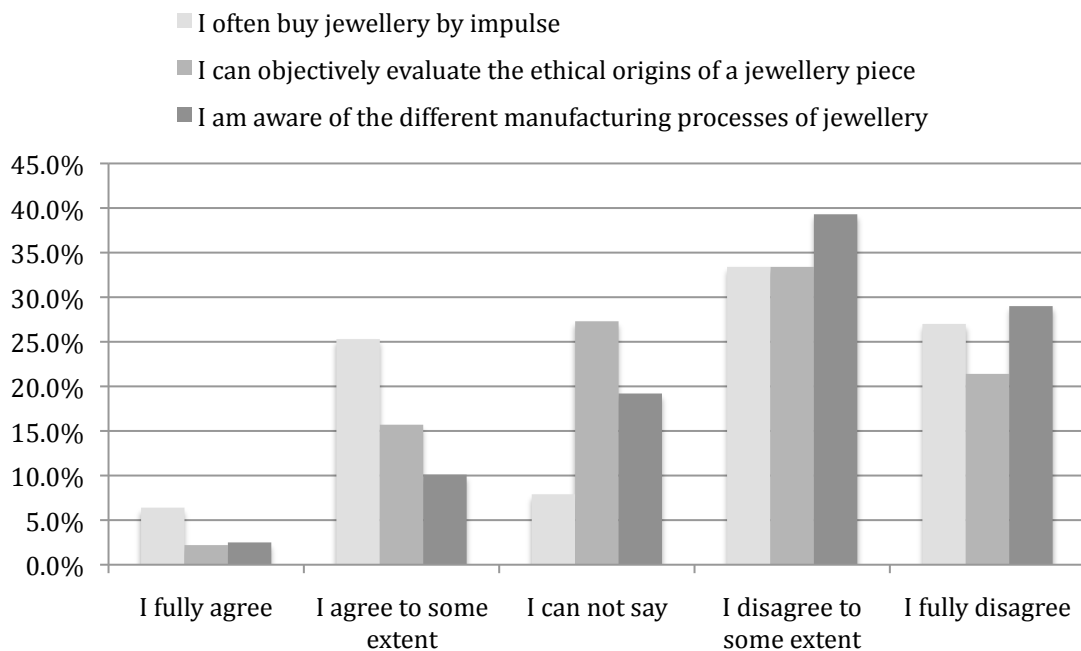


Figure 12. Jewellery shopping on impulse and general perceptions of knowledge on ethics in jewellery.

5.1 Key Insights from Research Interviews

The research interviews gave considerable substance to this study. This guided and aligned the study to grasp the reality as true as possible. It is thus good to emphasize its effect. There are numerous talented and creative professionals working in the industry.

Introduced to the mass public by the James Bond film (1971) the slogan “A Diamond Is Forever”, which has also been recognised by academics (Bergenstock and Maskulka 2001), represent one good example of this intelligent and creative marketing that is well present in the luxury industry. In fact, the luxury industry requires vast amounts of talented creators to fuel the marketing efforts (Vizenca fair 2010; Mitchman and Mazze 2006). It might prove difficult to measure consumer perceptions of the creativity of the industry, nonetheless it is important to note how valuable creative personnel is to a jewellery company.

A jewellery piece, at the end, is all about design (Larsson 2009). And jewellery is a form of art (Boyce 2010). The spark behind is the stories that go along with the jewellery pieces. Thus, it is all about story telling (Nikkinen 2009). However a great deal of trust is needed. In fact, the trust becomes as the glue between the seller and customer. Not surprisingly among customers, employees, and suppliers **trust** is regarded as one of the most important elements in jewellery (Boyce 2010).

But jewellery is not a basic human need. Nevertheless jewellery has been a part of human nature for a long time. It is related to social acceptance, friendship, success, and self esteem (Arnould et al 2004, p270). Thus there is natural need after the basic needs are satisfied to beautify one-self with jewellery. This need was noted by some of the industry specialists (Ruohola 2009, Vizenca fair 2010)

Then what about ethics and jewellery? The majority of the Finnish interviewees reflected deep commitment to acting responsibly (Ruohola 2009, Minkkinen 2009, Larsson 2009, Nikkinen 2009). In addition, in Finland an ethical board was founded in 2008 to evaluate the values and ask relevant questions (Larsson 2009). Thus, it seems at least that in Finland the local industry is working hard to maintain good practices. The voices in Italy shared somewhat different insights. During the 2010 Vicenza jewellery fair in informal discussions, one comment was “*jewellery and ethics are two things far apart*”. Thus, there clearly are some matters still to be done. Arguably the main aspect is to evaluate and inspect one’s own supply chain. However as it was earlier discovered, it can be daunting task especially for a small provider. Then again this bounces back to

trust. A good example of a regular industry is “*if there is something suspicious in a supplier, it is best bet not to buy at all*” (Ruohola 2009). Therefore, if a business wishes to maximize its ethical behavior the best practice is to deal **only** with suppliers that they can really trust.

Then, where the industry is now going? Through the introductory interviews, it was a widely recognized fact that there will be a considerable change in the jewellery industry in the coming years (Fox 2009, Ruohola 2009, Vizenca fair 2010). Although the span of the main Internet effects to take place varied from the close past to a period of ten years ahead, it was a known gut feeling by many of the interviewees that the current young generation will exceedingly concentrate their buying of jewellery in the Internet (Fox 2009, Ruohola 2009, Minkkinen 2009, Vizenca fair 2010). In addition, it was expected that the strong brands would do the most selling in the Web, a key managerial implication in it self. Therefore, the next ten years will be an interesting period in jewellery.

5.2 Factor Analysis

The factor analysis was carried out first by determining which variables were to fit in to the analysis. To this purpose, factor analysis was carried out and subsequently the variables with lower than ± 0.4 factor loading were left out. This was repeated five times, until there were left only variables with higher than ± 0.4 factor loading. This resulted the amount of variables in use to come down to 39. Together these variables formed ten individual factors, which can be seen from Table 15.

Table 15. Factors representing customer perceptions and jewellery shopping behavior in respect to ethical, social, and environmental matters.

Factor	Claim	Metric	Factor Loadings	h^2	Cronbach's Alpha
F1	18-3	I am prepared to pay extra for ethically made jewellery	0.721	0.549	0.898
	18-1	I am ready and prepared to make extra efforts when I purchase jewellery, which I trust are ethical	0.698	0.578	

	26-1	I prefer to buy jewellery of ethical origins	0.689	0.430	
	15-4	Jewellery should be manufactured ethically	0.686	0.695	
	26-7	Ethical manufacturing of jewellery is important to me	0.680	0.461	
	18-4	I am ready to participate actively to promote ethical jewellery	0.630	0.478	
	16-2	The environmental manufacturing process of jewellery is important to me	0.616	0.603	
	17-9	It is important for me that I know the supply chain of jewellery	0.597	0.519	
	4-4	The country of manufacture for the piece of jewellery that I am buying affects my purchasing decision	0.548	0.573	
	26-2	Clear information on the company selling the jewellery increase my trust on the ethical level of their jewellery	0.501	0.414	
	26-3	I prefer to buy jewellery from shops that openly inform about their operations	0.466	0.441	
	4-1	I often ask the sales person where the jewellery piece has been manufactured	0.443	0.670	
F2	16-10	I know well the different grades (alloys) of silver	0.833	0.692	0.851
	16-9	I am aware of the different manufacturing processes of jewellery	0.820	0.650	
	16-8	I know well the different grades (alloys) of gold	0.714	0.426	
	16-11	I know the Kimberley process	0.615	0.546	
	17-2	I can objective evaluate the ethical origins of a jewellery piece	0.533	0.584	
F3	6-8	I ask nearly always the opinion of my friends before I buy jewellery	0.806	0.517	0.815
	6-9	I take often support from my friends when I buy jewellery	0.789	0.443	
	6-1	My friends opinions affect my jewellery purchase behavior	0.624	0.862	
	6-3	I buy similar jewellery than my friends	0.597	0.469	
	6-13	Celebrities and important persons affect my jewellery purchases	0.595	0.720	
F4	4-12	I buy only the jewellery of a certain brand	0.698	0.585	0.750
	15-10	I have only one or two jewellery brands that I like	0.624	0.763	
	4-2	When I buy jewellery to me the Brand is important	0.519	0.745	
	4-9	I prefer national (Finland) jewellery	0.491	0.444	

F5	16-1	I think that gold is an ethical material	0.891	0.412	0.870
	16-3	I think that silver is an ethical material	0.823	0.534	
F6	3-6	Love is an important factor when I buy jewellery	0.791	0.596	0.712
	3-4	I often purchase jewellery having romantic thoughts	0.664	0.565	
	3-5	I buy jewellery often when I am happy	0.488	0.548	
F7	6-6	I often reward myself by buying jewellery	0.795	0.555	0.771
	3-2	Passion towards jewellery often drives me to also buy them	0.719	0.454	
F8	17-10	The jewellery shop affects to a great extent how ethical I feel their jewellery.	0.709	0.577	0.717
	17-8	My impression on the sales person affects highly how ethical I feel his or her jewellery	0.685	0.470	
F9	26-6	I often need to guess if the jewellery piece is ethically made or not	0.709	0.439	0.735
	26-5	I think that there is not enough information on ethical jewellery	0.626	0.495	
F10	15-5	I mainly buy expensive jewellery	0.661	0.638	0.711
	15-6	Quality is the most important aspect of jewellery	0.587	0.539	

The respondents in the research showed all in all ten individual dimensions how they perceive ethical, social, and environmental issues in jewellery. To interpret, the factors are further explained as follows:

1. *Highly responsible and active jewellery shopping.* Shows how much one is to exert efforts in buying ethical jewellery.
2. *High awareness of related ethical matters and supply chain.* The awareness to material characteristics, supply chain, and manufacturing processes.
3. *Support seeking and census driven behavior.* The extent to what one needs support to his or her buying decision on jewellery.
4. *Brand loyal.* The extent to what there is loyalty.
5. *Believes that silver and gold are ethical materials.* The perception that the materials used in jewellery are ethical.

6. *Happy romantic jewellery shopper for love.* Buys the jewellery when he or she is happy and usually to romantic purposes.
7. *Passionate self reward.* Likeness to reward oneself and feel passionate for jewellery.
8. *Ethical impression affected greatly by jewellery shop and sales person.* The extent to what degree the jewellery shop and sales person affects the jewellery shopper.
9. *Needs to guess on ethical perceptions and needs more information.* Perception that there is insufficient information on jewellery and therefore cannot judge if the jewellery piece is of ethical origins or not.
10. *Quality seeker, who perceives to buy expensive jewellery.* The extent to which one seeks quality and is willing to pay considerably, based on ones perception.

5.3 Cluster Analysis

When conducting a cluster analysis, one has a fair freedom in choosing the amount of clusters to be taken into the analysis. Even, if one conducts pseudo-F and cubic clustering criterion evaluations, their level of trust is still dependent of randomness, since the original cluster centres are chosen by a method characterised by randomness. Therefore, the aim of this analysis is to provide a suggestion of the best possible analysis, while leaving the opportunity to the reader to make additional segmentation, with the information provided. For this study analyses with cluster sizes from two to seven clusters were, since in consumer research the typical cluster sizes were in the range of two to six clusters depending of the research (Vassilikopoulou et al 2005, Jayawardhena et al. 2003, Kau et al 2003). Table 16 shows the cluster size spread, when the number of clusters is set between two to seven clusters.

Table 16. Cluster sizes, when the number of clusters is set from two to seven clusters

Cluster-size	2 clusters	3 clusters	4 clusters	5 clusters	6 clusters	7 clusters
Size of cluster 1	194	123	65	62	84	56
Size of cluster 2	213	136	105	77	85	89
Size of cluster 3	-	148	111	109	37	54
Size of cluster 4	-	-	126	62	63	62
Size of cluster 5	-	-	-	97	91	43
Size of cluster 6	-	-	-	-	47	54
Size of cluster 7	-	-	-	-	-	49
Total	407	407	407	407	407	407

From the Table 16, one can see that there is a fairly good spread among the different clusters in all of the analysis, therefore it would arguably be meaning full to study all of the variations of the clusters analysis. Nevertheless, the analysis will be limited to look at one analysis specially, but if one wishes to explain the others or certain cluster group, Appendix VII explains correlations to the ten factors for all these types of cluster analyses. Thus, one can continue and broad the analysis, given the tools in the appendix.

Table 17. Cluster centres for the six groups of consumers

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
F1 score	-.49659	-.42914	-.31096	-.36303	1.01677	.42639
F2 score	.59799	-.73257	-1.23313	.44028	.05403	.53210
F3 score	.02731	-.60702	.53501	.15374	.24348	-.04969
F4 score	.18899	-.50683	.55095	.05191	.21000	-.33105
F5 score	.83348	-.14272	.17187	-1.10163	.16685	-.21322
F6 score	.35574	-.19372	.19100	-.21330	.04935	-.24545
F7 score	.27129	.07055	-.47514	.38857	-.01999	-.72052
F8 score	-.14494	-.10734	.36520	-.46936	.00954	.77635
F9 score	-.22827	.48716	-.72794	-.33699	.60992	-.62920
F10 score	.22346	-.20133	-.07412	-.06034	.09075	-.07175

Here, we wish to first leave out cluster analyses with two and seven clusters, since they give perhaps too little or too spread information of the different customers groups. Then looking at the four that are left, the choice is the one with six clusters since it will have the highest number of clusters. This choice is justified since it will give the highest spread of explanations for different consumer groups. Table 17 explains the cluster centres of the six clusters in the analysis.

The cluster centres explain the general relation to the underlying factor. Therefore, to get a better understanding of the individual clusters, it is good to look at these by grouping the factors depending their relation to the clusters. Table 18 explains how the different clusters relate to the ten factors. For clarity of the analysis, in the table factors with a high relation ($> \pm 0.4$) to its cluster are marked bold, where as those with weak relation ($< \pm 0.2$) are marked with grey colour. Those with lower than ± 0.1 were left out from the analysis. Also, to increase the explaining power of the table three factors of highest relation are highlighted with numbers one to three.

Table 18. Clusters explained by their relation to the factors.

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
Positive relation to the factors, bold indicates strong (> 0.4) and grey weak relation (< 0.1). Top three factors indicated by numbers.					
Believes that silver and gold are ethical materials¹ High awareness of related ethical matters and supply chain² Happy romantic jewellery shopper for love Passionate self reward Quality seeker, who perceives to buy expensive jewellery Brand loyal	Needs to guess on ethical perceptions and needs more information	Brand loyal³ Support seeking and census driven behavior Ethical impression affected greatly by jewellery shop and sales person Happy romantic jewellery shopper for love Believes that silver and gold are ethical materials	High awareness of related ethical matters and supply chain³ Passionate self reward Support seeking and census driven behavior	Highly responsible and active jewellery shopping¹ Needs to guess on ethical perceptions and needs more information² Support seeking and census driven behavior ³ Brand loyal Believes that silver and gold are ethical materials	Ethical impression affected greatly by jewellery shop and sales person¹ High awareness of related ethical matters and supply chain² Highly responsible and active jewellery shopping

Negative relation to the factors, bold indicates strong (> 0.4) and grey weak relation (< 0.1). Top three factors indicated by numbers.					
<p>Highly responsible and active jewellery shopping³ Needs to guess on ethical perceptions and needs more information Ethical impression affected greatly by jewellery shop and sales person</p>	<p>High awareness of related ethical matters and supply chain¹ Support seeking and census driven behavior² Brand loyal³ Highly responsible and active jewellery shopping Quality seeker, who perceives to buy expensive jewellery Happy romantic jewellery shopper for love Believes that silver and gold are ethical materials Ethical impression affected greatly by jewellery shop and sales person</p>	<p>High awareness of related ethical matters and supply chain¹ Needs to guess on ethical perceptions and needs more information² Passionate self reward Highly responsible and active jewellery shopping</p>	<p>Believes that silver and gold are ethical materials¹ Ethical impression affected greatly by jewellery shop and sales person² Highly responsible and active jewellery shopping Needs to guess on ethical perceptions and needs more information Happy romantic jewellery shopper for love</p>		<p>Passionate self reward³ Needs to guess on ethical perceptions and needs more information Brand loyal Happy romantic jewellery shopper for love Believes that silver and gold are ethical materials</p>

Table 18 functions as basis to interpret the clusters. The factors having the highest relation to the clusters either in a strong positive loading, or negative, act as the main indicators, and reveal the characteristics of the specific group. Therefore, the clusters can be named as follows:

Cluster 1: *Positivists* are a group who perceive jewellery as ethical, like to think they know much, but actually the social, ethical, environmental matters do not really count when they are buying jewellery.

Cluster 2: *Casual shoppers* have low awareness, they are independent shoppers, they are not loyal to brands, they rely on their perceptions, and are not too much concerned of social, ethical, environmental matters do not really count when they are buying. However, they would like to receive much more information of the social, ethical, environmental facts in jewellery.

Cluster 3: *Brand loyalists* go with the flow, rely to others, and have low awareness, but understand that there are important social, ethical, environmental matters behind their choices.

Cluster 4: *Critical negativists* perceive jewellery as unethical, are critical to new information, and like to think they are aware of the social, ethical, environmental matters in jewellery.

Cluster 5: *Good-doers* are extremely active and responsible jewellery buyers. However, they still need to rely much on their perceptions, and thus would like to receive much more information of the social, ethical, environmental facts in jewellery.

Cluster 6: *Impressionists* are the softer version of good-doers. They are affected greatly by the jewellery shop image and the sales person, perhaps by asking always a lot of questions. They like to think they are aware of the social, ethical, environmental matters in jewellery, and understand that they are important issues.

5.4 Cluster Comparisons.

In order to study and define the consumer groups in depth, a number of cross tabulations through the clusters are presented in the following. This analysis allows a deeper understanding of the underlying characteristics of the consumer groups. First, Table 19 illustrates basic descriptive statistics of the cluster groups.

Table 19. Cross tabulation of the six clusters for the key descriptive variables.

	Positivists	Casual shoppers	Brand loyalists	Critical negativists	Good-doers	Impressionists
Gender (n=407), $\chi^2 = 38.15$, $df = 5$, $p = 0.000$						
Male	18.1	54.1	19.4	25.8	22.2	17.8
Female	81.9	65.9	80.6	74.2	77.8	82.2
	100%	100%	100%	100%	100%	100%

Age (n=407), $\chi^2 = 42.35$, $df = 10$, $p = 0.000$

<i>Under 36</i>	39.3	14.1	13.5	12.7	30.8	38.3
<i>36 to 50</i>	39.3	34.1	45.9	46.0	47.3	38.3
<i>Over 50</i>	21.4	51.8	40.5	41.3	22.0	23.4
	100%	100%	100%	100%	100%	100%

Education (n=407), $\chi^2 = 9.40$, $df = 5$, $p < 0.100$

<i>Lower than Bachelor</i>	60.7	64.7	56.8	76.2	74.7	59.6
<i>Bachelor or higher</i>	39.3	35.3	43.2	23.8	25.3	40.4
	100%	100%	100%	100%	100%	100%

Profession (n=407), $\chi^2 = 35.79$, $df = 15$, $p < 0.050$

<i>White collar</i>	13.1	25.9	24.3	27.0	18.7	17.0
<i>Blue collar or basic worker</i>	47.6	34.1	51.4	44.4	59.3	57.4
<i>On Pension</i>	8.3	23.5	8.1	11.1	6.6	4.3
<i>Entrepreneur, Student, or other</i>	31.0	16.5	16.2	17.5	15.4	21.3
	100%	100%	100%	100%	100%	100%

Pre-tax Income (n=407), $\chi^2 = 7.65$, $df = 5$, $p = 0.177$

Less than 20 000 Euros	30.6	17.3	9.7	25.0	26.3	20.0
More than 20 000 Euros	69.4	82.7	90.3	75.0	73.7	80.0
	100%	100%	100%	100%	100%	100%

Next, analysis of variance allows cluster comparison is specific statements and can hint where are the greatest differences. By looking at Table 20 one can notice that there are statistically significant differences among several claims. These claims were selected from the list of variables that were left out from the factor analysis. Hence, as such these are independent of the factor and cluster analysis. Due to their nature and relatedness to the topic, it is interesting to compare, how these claims, were addressed by the six different consumer groups.

Table 20. Analysis of variance on the six cluster groups on selected variables. Claims showing differences among the consumer groups are shown bold.

No.	Attitude claims	Between (B) or Within (W) Groups	Sum of Squares	Mean Square	df	F	Sig.
16-7	It is important to me that there has not been used any child labour in the jewellery manufacturing process	B	22.009	4.4	5	6.2	.000
		W	285.740	0.7	401		
18-6	I think that there are not enough ethical jewellery in the market	B	19.154	3.8	5	7.4	.000
		W	206.473	0.5	401		
3-1	I buy jewellery with time and consideration	B	20.214	4.0	5	4.0	.002
		W	407.594	1.0	401		
16-4	It is important to me that the person producing the jewellery piece gets a sufficient pay for the job	B	28.589	5.7	5	11.4	.000
		W	200.591	0.5	401		
18-5	I know or know what is ethical consuming	B	45.175	9.0	5	10.7	.000
		W	338.309	0.8	401		
18-2	I often visit many jewellery shops in order to get what I want	B	12.530	2.5	5	1.8	.115
		W	564.025	1.4	401		
4-7	I buy often jewellery at discounts	B	5.490	1.1	5	0.7	.608
		W	610.579	1.5	401		
6-10	I buy jewellery mainly because of their aesthetic beauty	B	22.661	4.5	5	3.3	.006
		W	546.499	1.4	401		
26-4	When I want I can buy jewellery that is ethically made	B	23.226	4.6	5	6.8	.000
		W	272.204	0.7	401		
17-1	I mainly evaluate how ethical a piece of jewellery is based on my gut feelings	B	5.485	1.1	5	1.5	.189
		W	293.178	0.7	401		
3-7	I buy jewellery most likely when there is a pleasant atmosphere in the store	B	9.746	1.9	5	1.6	.160
		W	489.488	1.2	401		
4-3	It is important that I am able to trust the sales person	B	21.853	4.4	5	7.5	.000
		W	232.585	0.6	401		
4-10	I know my consumer rights	B	99.794	20.0	5	18.2	.000

Yet, not all of these claims show statistical significance. If one requires a high F-value with equally high statistical significance ($p=0.000$), only claims *16-7*, *18-6*, *16-4*, *18-5*, *26-4*, *4-3*, and *4-10* satisfy this. In fact, these are all linked with the research topic, and thus are worth or deeper investigation. To bring the selection of these variables even further down, let us look at those four with highest F-value, and see Table 21. In addition, it is interesting to note the other sentences that did not contain much variance across the cluster groups. Therefore, the value of these sentences lay, actually, in the measurement of the whole jewellery buying population. And, can show interesting facts.

Table 21. Comparison of means across consumers groups on selected variables. Highest agreement to the statement is indicated by grey highlight and lowest by bold. Scale used is the Likert scale from 1 to 5 (high to low agreement).

		It is important to me that the person producing the jewellery piece gets a sufficient pay for the job	I know or know what is ethical consuming	It is important that I am able to trust the sales person	I know my consumer rights
	eta ²	0.125	0.118	0.086	0.185
Positivists	Mean	1.50	2.42	1.58	3.25
	N	84	84	84	84
	Std. Deviation	.668	.921	.732	1.129
	Mean	1.67	2.33	1.48	2.12
Casual shoppers	N	85	85	85	85
	Std. Deviation	.643	.662	.590	.837
	Mean	1.49	2.27	1.51	2.78
Brand loyalists	N	37	37	37	37
	Std. Deviation	.507	.871	.768	1.158
	Mean	1.51	2.51	1.25	2.86
Critical negativists	N	63	63	63	63
	Std. Deviation	.592	.914	.474	1.090

Good-doers	Mean	2.18	3.07	1.91	3.30
	N	91	91	91	91
	Std. Deviation	.864	1.020	.950	1.049
Impressionists	Mean	1.83	3.11	1.89	3.62
	N	47	47	47	47
	Std. Deviation	.816	1.127	.961	1.074

It seems that the Brand loyalists are, in fact, the most concerned in relative terms of the ethical matters behind jewellery. Also, in the case of critical negativists, it is good to note the significance they also place on trusting the seller. Next, Table 22 shows the annual spending habits among the different groups.

Table 22. Annual spending on jewellery among different clusters.

	Positivists	Casual shoppers	Brand loyalists	Critical negativists	Good-doers	Impressionists
Annual spending on jewellery (n=407), $\chi^2 = 50.68$, $df = 10$, $p = 0.000$						
Under 60 Euro (22.9%)	38.1	12.9	.0	23.8	28.6	19.1
60 to 160 Euro (45.0%)	48.8	42.4	35.1	47.6	42.9	51.1
Over 160 Euro (32.2%)	13.1	44.7	64.9	28.6	28.6	29.8
	100%	100%	100%	100%	100%	100%

It is interesting to note how differently the groups like to buy their products. Clearly, the brand loyalists spend the most, where as especially the positivists tend to buy less. Overall, the medium spending, in 60 to 160 Euros annually, takes the majority of roughly half of the population. Then, it is interesting to look at the purchasing behavior in Internet, in Table 23. Interestingly, there seems that roughly half of the respondents indicated interest in buying from Internet.

Table 23. Expected change in Internet buying behavior.

	Positivists	Casual shoppers	Brand loyalists	Critical negativists	Good-doers	Impressionists
Expected change in my Internet purchasing behavior (n=407), $\chi^2 = 12.31$, $df = 15$, $p < 0.050$						

It will grow or stay as it is (45.6%)	50.6	36.5	41.7	43.3	42.2	66.0%
I believe that I will not buy from the Internet (54.4%)	49.4	63.5	58.3	56.7	57.8	34.0%
	100%	100%	100%	100%	100%	100%

Analysis on price category spending, in Table 24, shows that men have a tendency to buy more expensive pieces than women. This is an interesting notion, since too often men are not targeted in the jewellery advertisement. Thus, a clear managerial implication would be to target men more in expensive price category's keeping in mind that they eventually buy the product.

Table 24. Annual spending on jewellery in different price categories between men and women.

	Male	Female
Spending on jewellery in different price categories(n=407), $\chi^2 = 19.84$, $df = 10$, $p < 0.050$		
Under 20 Euro	8.0	3.8
20 - 40 Euro	5.4	8.3
40 - 60 Euro	8.9	10.7
60 - 80 Euro	5.4	10.7
80 - 120 Euro	21.4	21.8
120 – 160 Euro	12.5	15.2
160 – 240 Euro	6.3	11.4
240 – 300 Euro	8.0	6.6
300 – 600 Euro	12.5	7.6
600 – 1000 Euro	8.0	2.8
Over 1000 Euro	3.6	1.0
	100%	100%

Overall, the cross tabulations bring more information of the cluster groups. In fact, in light of this understanding there can be now made new observations for the clusters. Now, let us look at the clusters, and make some new observations on the basis of the results above.

Positivists: They are young, well educated, with lowest income. They are interested of buying from Internet, a good note for the coming years. However, currently they spend the least, perhaps because they are still young.

Casual shoppers are more likely men than women, since they have a relative higher portion of men among the group. They are older, and know their consumer rights, therefore shopping to them is more practical task and they like to do their shopping in a convenient way to them. Most importantly, they are good spenders.

Brand loyalists are older, well educated, with the highest income. Also, they have the highest spending ratio. They like to trust their brands and arguably spend on expensive luxury brands, thus making highest relative spending.

Critical negativists are also older, but with lowest education. They are medium spenders, and are the smallest group. They are the only group strongly believing that silver and gold are not ethical materials.

Good-doers are young, mainly blue collar or basic workers, who have only a medium spending on jewellery. However, taking their age into account, this biggest group will become very influential in the coming next ten years. They like to do the 'right' thing and want more information. Therefore, a key competitive advantage in the fight of these customers, in the coming years, is to have as much as possible transparent information present explaining the origins and sources of the raw materials and parts used in the jewellery they are buying.

Impressionists are also young, but they are well educated. However, they do not know their consumer rights well. Perhaps, this is because of their young age. Overall, they are interested of buying from Internet, and they are medium spenders. This is also a growing consumer group. They like to ask a lot of questions, and are easily affected by the seller's knowledge.

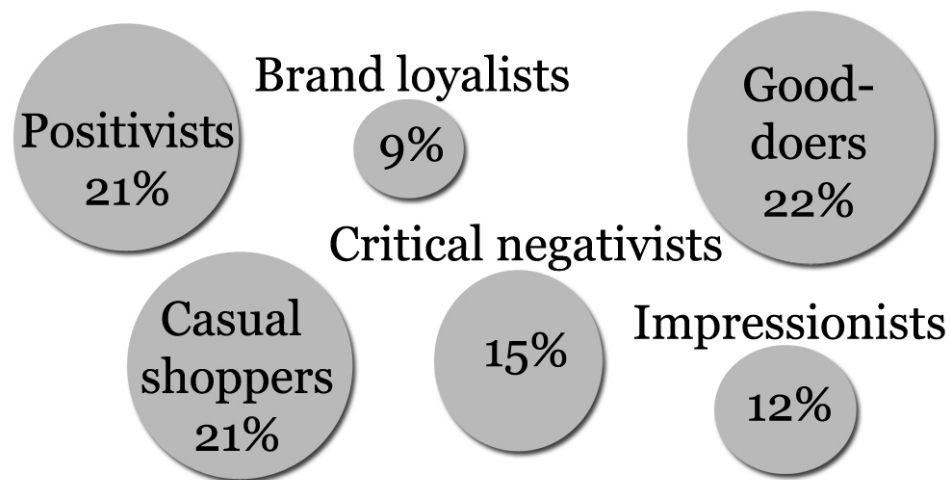


Figure 13. Cluster size comparison.

Finally, Figure 13 illustrates graphically the differences in size of the clusters. Note that, at the moment Casual shoppers and Brand loyalists spends the most, and the first consumer group is not too much concerned of the ethical, social, and environmental matters. However, in the coming years, all the rest of the big groups, meaning Positivists, Good-doers, and Impressionists, will become very influential customers groups. And, if their expectations in the ethical, social, and environmental matters in jewellery are affected in any bad way, it is certain that there will high costs for the industry. Overall, it is clear that having a good stand on doing things ‘right’ can become a very strong competitive advantage in the near future.

5.5 Discussion

In the literature review, a number of hypotheses are made regarding jewellery and customer behavior. Next, these hypotheses are examined against the results both in the survey and the findings from the interviews. Also, additional observations are made. To begin, let us first go through the hypotheses made in the literature section:

H 1. There are clear consumer groups, which can be grouped by their thinking and behavior.

H 2. The level of education increases sensitivity towards ethical, social, and environmental issues in jewellery.

H 3. From experience, activation, and expression of emotions, it is experience that is most important to jewellery shopping.

H 4. Jewellery shopping is a common self-rewarding behavior.

H 5. A comfortable atmosphere increases the probability to shop jewellery

H 6. Consumer will prefer "ethical" jewellery to "normal" jewellery.

H 7. Consumer is ready to pay extra for ethical jewellery.

H 8. There is not enough "ethical" jewellery to choose from.

H 9. On average, customers feel that they are not getting enough product information.

H 10. Company transparency increases customer loyalty.

First, perhaps the most straightforward hypotheses to confirm are **H1** and **H4**. On the basis of the survey results we can clearly confirm these two. Both have a strong agreement and only a marginal disagreement. In other word, a comfortable shopping atmosphere does impact positively the shop sales, and that there is a clear trend that the customers do not get enough product information. Figure 14, below, shows the survey results considering these two hypotheses.

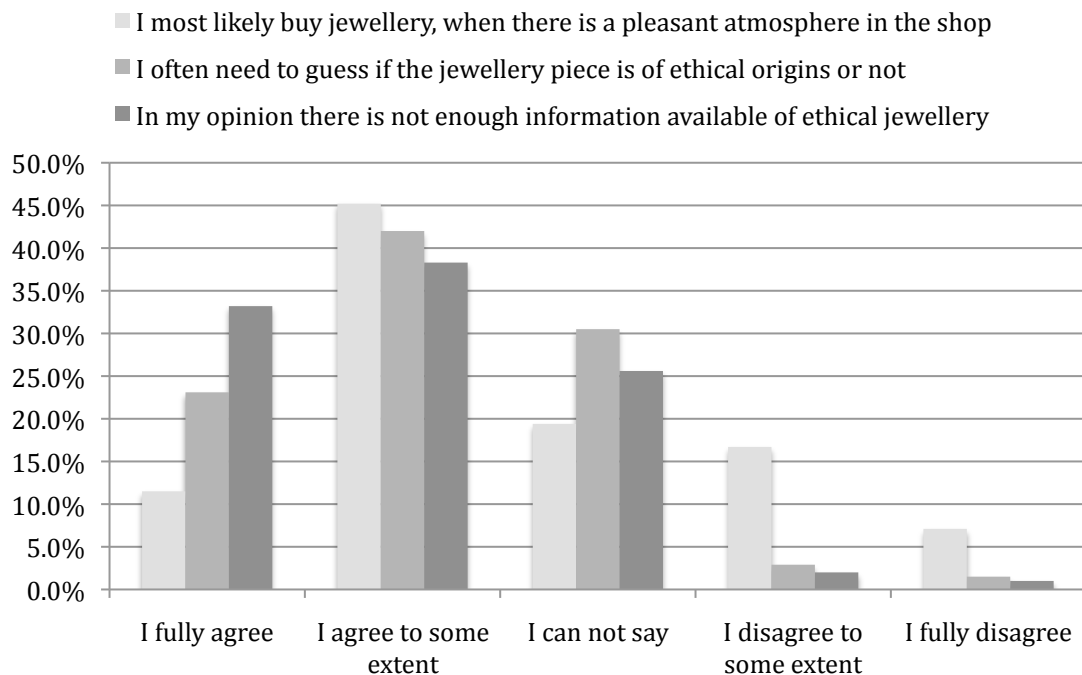


Figure 14. Testing and confirming hypotheses H1 and H4: Pleasant shop atmosphere increases the likelihood to buy jewellery and the customer feels that there is not enough product information.

Second, the hypothesis **H3** was discovered false. In the survey, overall respondents indicated 70% that they disagree with the statement “*I reward my self often by buying jewellery*”. This is a clear sign that self-rewarding and jewellery do not go well together. In fact, it is a clear managerial implication, since self-rewarding should not thus be overemphasized.

Third, the hypothesis **H2** was rather difficult to measure in terms of how emotions are activated and expressed. However, in the light of the survey results, it can be confirmed that emotions do play a big role in jewellery shopping. Jewellery causes instant emotional reactions, jewellery is bought commonly when being happy, and with love, as seen in Figure 15.

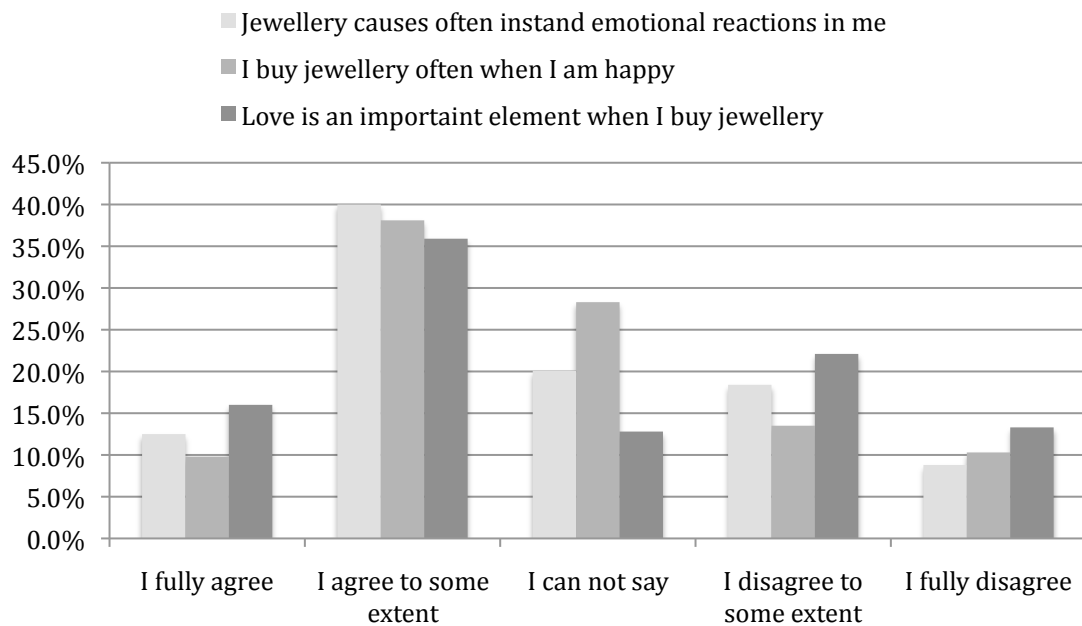


Figure 15. Testing and confirming hypothesis H2: Experiencing emotions play an important role when buying jewellery.

Fourth, when coming to hypothesis **H5**, by looking at the Table 25, it can be understood that the individual’s education level does not seem to have a linkage to the sensitivity towards ethical, social, and environmental issues in jewellery. Thus, this hypothesis can safely be declared invalid. In fact, on the bases on the research results, it can be said that the sensitivity is independent of the person’s education level. In fact, it might seem to be a straightforward answer, since it might be argued that ‘doing the right thing’ is a universal attitude, and as such should be independent of education.

Table 25. Testing hypothesis H5: Cross-tabulation of the level of education on selected questions (n=401).

	Compulsory school	High school / trade certif.	Bachelor’s degree (lower)	Bachelor’s degree (higher)	Master’s degree
The jewellery piece must be ethically manufactured, $\chi^2 = 53.55$, $df = 8$, $p < 0.05$					
Agree	52	52	59	60	64
Can not say	38	38	27	27	31
Disagree	10	10	15	12	5

	100%	100%	100%	100%	100%
It is important to me that the jewellery piece is manufactured environmentally friendly, $\chi^2 = 53.73$, $df = 8$, $p < 0.05$					
Agree	73	72	68	73	67
Can not say	15	18	22	15	21
Disagree	13	10	10	12	13
	100%	100%	100%	100%	100%

	100%	100%	100%	100%	100%
It is important to me that in the manufacturing process there has not been used any child labor, $\chi^2 = 54.16$, $df = 8$, $p < 0.05$					
Agree	83	91	94	92	95
Can not say	4	4	2	8	3
Disagree	13	5	4	0	3
	100%	100%	100%	100%	100%

	100%	100%	100%	100%	100%
In my opinion there is not enough ethical jewellery in the market, $\chi^2 = 53.67$, $df = 8$, $p < 0.05$					
Agree	23	29	30	29	33
Can not say	69	66	61	65	59
Disagree	8	5	9	7	8
	100%	100%	100%	100%	100%

	100%	100%	100%	100%	100%
In my opinion the ethical manufacturing of jewellery is important, $\chi^2 = 53.80$, $df = 8$, $p < 0.05$					
Agree	23	29	30	29	33
Can not say	69	66	61	65	59
Disagree	8	5	9	7	8
	100%	100%	100%	100%	100%

Highlighting refers to the highest value in the education group, and **bold** means the highest individual value for the question

Fifth, previously the factor and cluster analysis brought us six clear groups. Therefore, hypothesis **H6** can be confirmed. However, the decision on the number of groups has naturally some effects, since a different group count could, and probably would, have caused differences in interpretation. Nevertheless, these are some clear trends that can be seen from the conducted analysis. (A) The majority of irresponsible consumers seem to be, frankly, older men. Where as, (B), the responsible consumers are younger, the new generations. Thus, the ideology of consuming ethically is only now beginning to sink in. Or, ethical consumption is and has been the importance of the young people throughout the years. However, now it can be argued that ethical consumption is starting to sink in and it will become even more important in the coming years, when the 'right-to-do' minded will increase their size in the overall spending in jewellery.

Sixth, the hypothesis **H7** assumed that the consumers prefer “ethical” jewellery to “normal” jewellery, and the research findings show that this assumption can be verified. In Figure 16 there can be observed three different statements concerning the hypothesis. These three together confirm the consumer preference towards ethical jewellery.

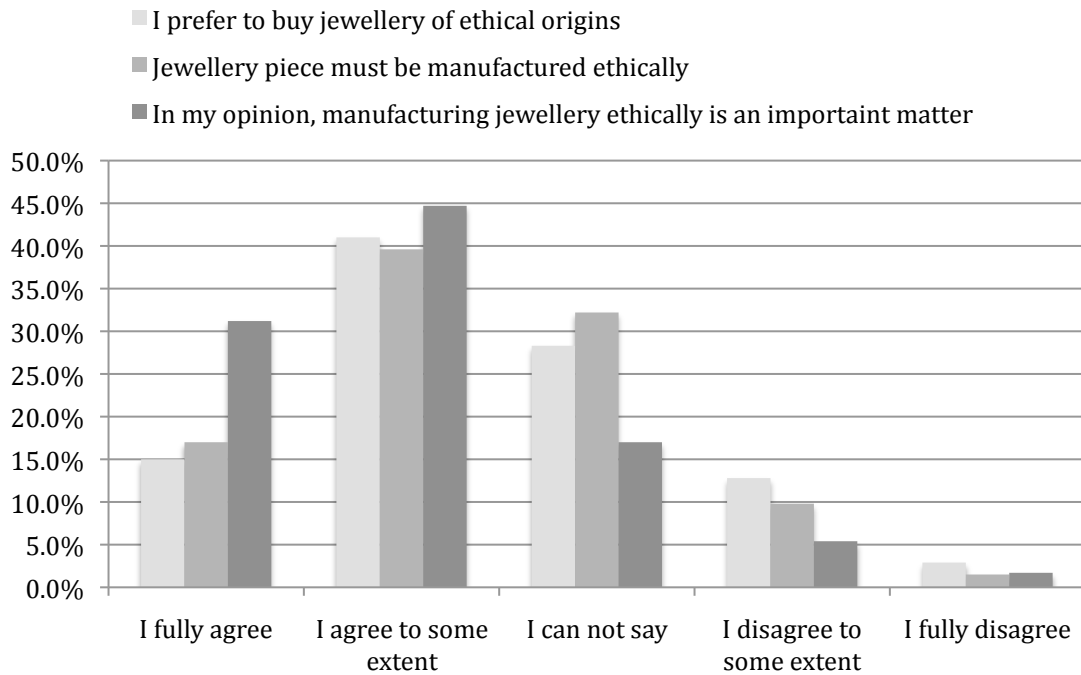


Figure 16. Testing and confirming hypothesis H7: Consumers prefer to buy jewellery of ethical origins.

Seventh, the next hypothesis **H8** tests whether or not the consumers are ready to pay more or not of jewellery of ethical origins. Although there are a significant proportion of consumers who could pay more, as Figure 17 show, there nevertheless are those who are not willing to pay more. In addition, the statistical analysis that grouped six consumer groups showed that *Positivists* and *Casual shoppers*, who together present 42% of all consumers, are not too much concerned of the ethical matter, and thus would not wish to pay more. Therefore, overall the H8 cannot be confirmed. However, it can be said that a significant amount of consumers would be willing to pay more of jewellery of ethical origins.

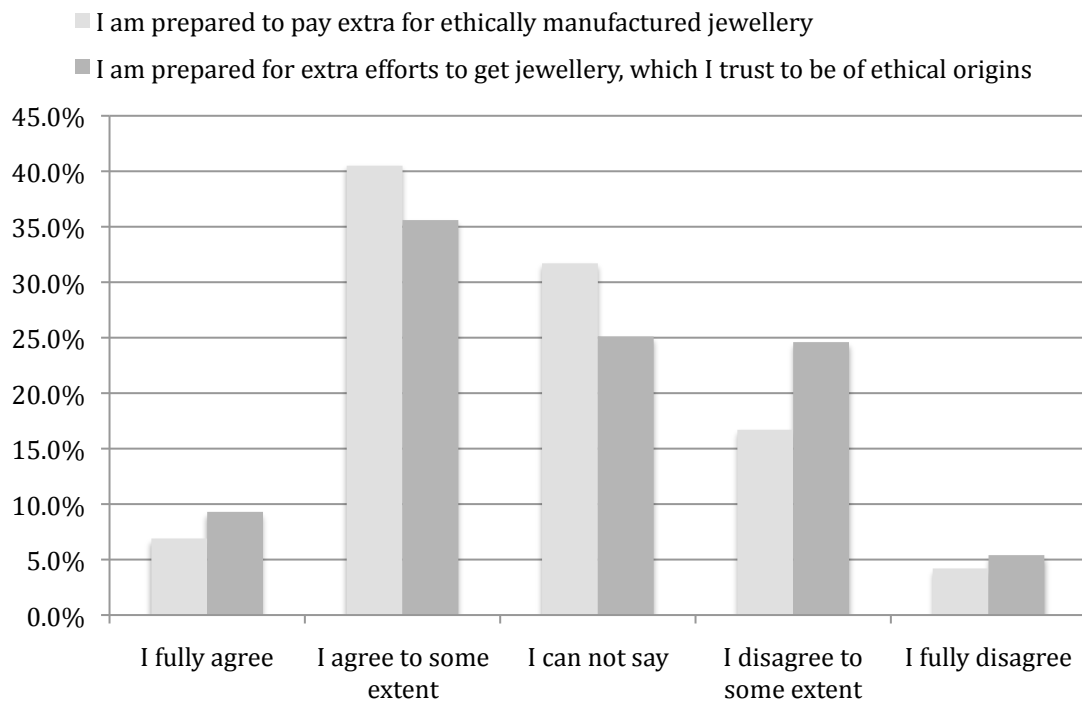


Figure 17. Testing and confirming hypothesis H8: A significant proportion of consumers are prepared to pay extra for ethical jewellery.

Eight, Figure 18 show clearly that hypothesis **H9** can be confirmed without a doubt. Overall, the supply of information is seen vital, and absolutely necessary to build the seller-customer relationship. The bias in the responses is so great that this hypothesis creates a clear managerial implication. To increase customer loyalty and preference, supply open and transparent information about the company and about the products to the customer.

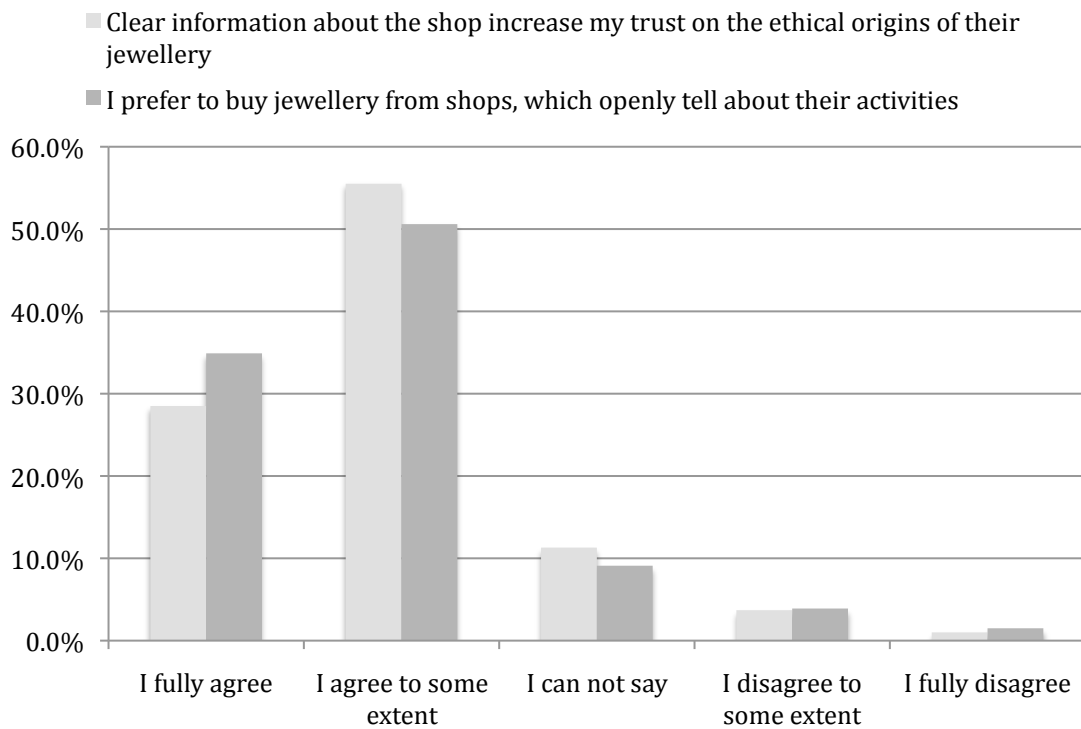


Figure 18. Testing and confirming hypothesis H9: Company transparency increases customer loyalty.

Finally, the question whether there is or there is not enough “ethical” jewellery to choose from, showed an interesting observation of the jewellery industry from customers point of view. In light of the research results, it seems that the lack of information about the ethical origins of jewellery, results to the fact that most of the people, in precise 64%, do not even know that if there is ethical jewellery in the market or not. Also, in the open-ended questions in the survey, many respondents indicated that the topic of ethical jewellery is new to them, and actually they have not given the idea much thought earlier. In fact, most of the respondents confessed their poor hard knowledge on the matter. Therefore, as such the H10 cannot be confirmed. However, it can be reformulated as follows, *there is not enough information available on ethical jewellery, and thus the customer does not know how to choose ethical jewellery.* A key

managerial implication of this would be to offer “ethical” jewellery and provide it with sufficient information.

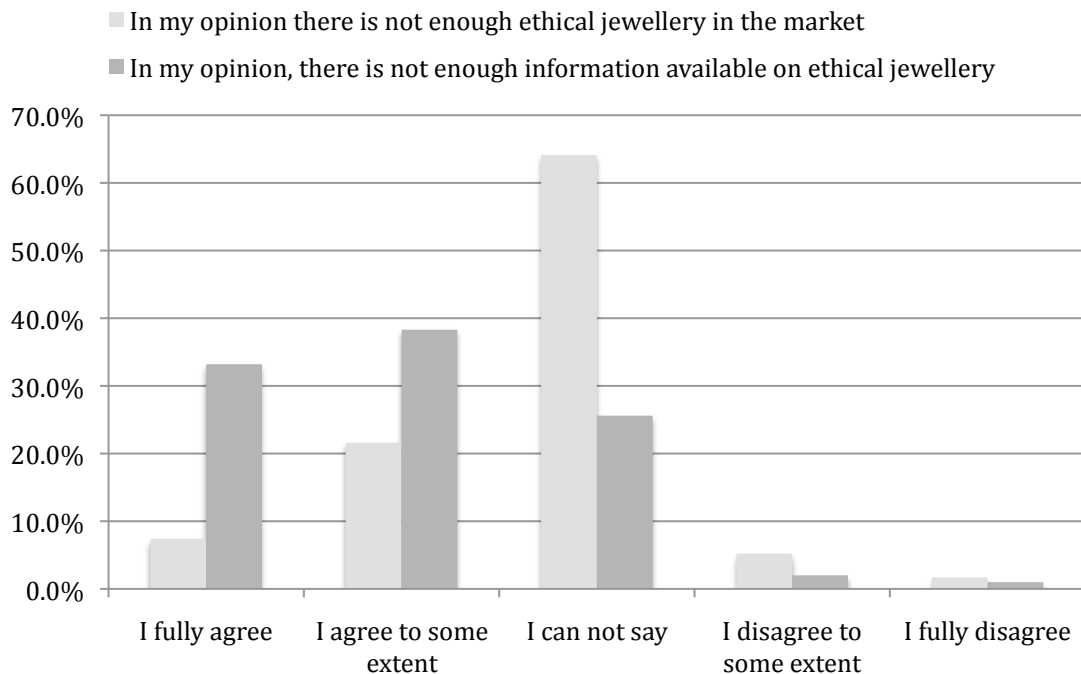


Figure 19. Testing and discussing hypothesis H10: There is not enough information available on ethical jewellery, and thus the customer does not know how to choose ethical jewellery.

One extra notion is yet to be discussed. That is, the effect the Internet will have on the jewellery industry. This is important in the scope of the research because Internet is an excellent channel in terms of informing the consumer. It is convenient for the consumer to gather information about the jewellery offering, and thus better evaluate the background of the jewellery piece. Therefore, the Internet might enable a channel that provides the consumer a good selection of ethically, socially, and environmentally sound jewellery.

It was widely expressed in the interviews that the Internet will most certainly have a great effect on the jewellery industry, but it is now good to take a look at the research results in the light of this. Best method is to look at the differences between different

age groups and build the discussion on this. Below, Table 26 illustrates the differences among different age groups in spending in the Internet and the expected change in buying behavior.

Table 26. Differences between different age groups in relation to spending on jewellery in the Internet and to the expected personal change in the spending.

	Age 18-30	Age 30-40	Age 40-50	Age 50-60	All age groups
How much do you buy your jewellery from the Internet? (n=357)					
I do not buy jewellery from the Internet	67.2%	70.0%	71.4%	78.5%	72.3
I buy 0-5%	8.6%	12.5%	16.7%	9.7%	12.6
I buy 5-20%	15.5%	11.3%	5.6%	6.5%	8.7
I buy more than 20%	8.6%	6.3%	6.3%	5.4%	6.4
	100.0%	100.0%	100.0%	100.0%	100.0%
	Age 18-30	Age 30-40	Age 40-50	Age 50-60	All age groups
How do you estimate your jewellery purchasing will change in the future? (n=362)					
It will grow	24.1	30.2	23.8	15.2	23.2
Stay as it is	27.6	37.2	22.2	15.2	24.9
I don't buy, will not, and if I have it will decrease	48.3	32.6	54.0	69.6	51.9
	100.0%	100.0%	100.0%	100.0%	100.0%

On the bases on these findings, it is safe to state that the Internet will portray an even more significant proportion of the overall jewellery sales in the next ten years. The younger generations, now aged between 18-30, clearly consume the most in the Internet. Also, the first computer generation, now aged 30 to 40 years, are consuming in significant levels, where as the older generations above 40, and especially above 50 clearly consume less. When the purchasing power shifts to the younger generations, the overall consumption in the Internet will surely increase.

So, how much is currently the overall jewellery spending in the Internet? Well, first there must be some kind of an estimate of the proportion how much the Internet represent on the whole consumption. If we assume, on the basis on the results in Table 26, that overall 72.3% of the population do not buy jewellery from the Internet, then 12.6% of the people buy 2.5%, and 8.7% buy 10%, where as the rest of the people being

6.4% buy 30% of their jewellery from the Internet, an average of this can be calculated. With these assumptions, the overall Internet spending can be calculated as follows: $0.723*0\%+0.126*2.5\%+0.087*10+0.064*30\%$, which equals 3.1%. Therefore, if Finland's jewellery market share in the retail sector is currently estimated to 220 M euro, then 3.1% of this is 6.8M. And, it is expected to grow, as there are roughly half of the population who state that they will keep their Internet buying at the current level or increase it.

Interestingly, this falls a little short of the 7.9% (in US) that some of the earlier estimates that previous research has discovered for the relative share of what the Internet currently represents (Aiello et al. 2009). Thus, on the bases of these two estimates, it should be fair to state that the Internet jewellery sales account to approximately 3-5% of the global trade, or 7-12 billion USD. Overall, these two research findings clearly show that there is a strong market for jewellery in the Internet.

6 Summary, Conclusions, and Recommendations

6.1 Summary and Main Findings

This thesis investigates *the perceptions, which consumers have on social, ethical, and environmental issues in jewellery and how these perceptions affect consumers' purchasing behavior*. Overall, the research is rich in results and the questionnaire, as well as the proceeding analysis succeeds in testing the hypotheses set in the literature review. The majority of the hypotheses are in general proven to be correct, although some are discovered false, or in need of some modifications. In general, the thesis develops additional understanding in consumer behavior in the jewellery market. The main results reflect now a more holistic view on how the social, ethical, and environmental issues relate currently and in the near future to the consumer's purchasing behavior. In the following, the main results are summarized.

6.1.1 The Main Drivers are Design, Price, and Trust

There are three main factors that affect consumer behavior. These three, namely, are **design, price, and trust**. These constitute the main drivers behind the consumer purchasing decisions. These all were mentioned directly or indirectly in the literature review, survey results, and as well in the interviews conducted for this thesis. It is good to also note while brands are important their main function is to create trust. Overall, when beginning to plan or decide on any jewellery business case, these three drivers should be reflected in the action.

Company transparency and honest communication drive trust in to the consumers' heart. It is key to communicate all the good things the company is doing, but in such communication it is good to remember to actually verify that what is communicated outside is also done inside. Best practice to build an ethically sound supply chain is to use only those suppliers that act responsibly, not suspiciously in any way, and are such that they can be trusted.

6.1.2 A 30/70 split in Active Ethical Shopping Behaviour

Although, **ethical, social, and environmental matters in jewellery are considered important, the majority of the consumers are not willing to make extra efforts or pay more on ethically made jewellery**. Yet, there are two significant groups of consumers, who are willing to make extra efforts to make sure they are buying ethical jewellery. Below, in Figure 20, there are represented the different cluster groups in terms of their size and behavior as responsible and active jewellery consumers.

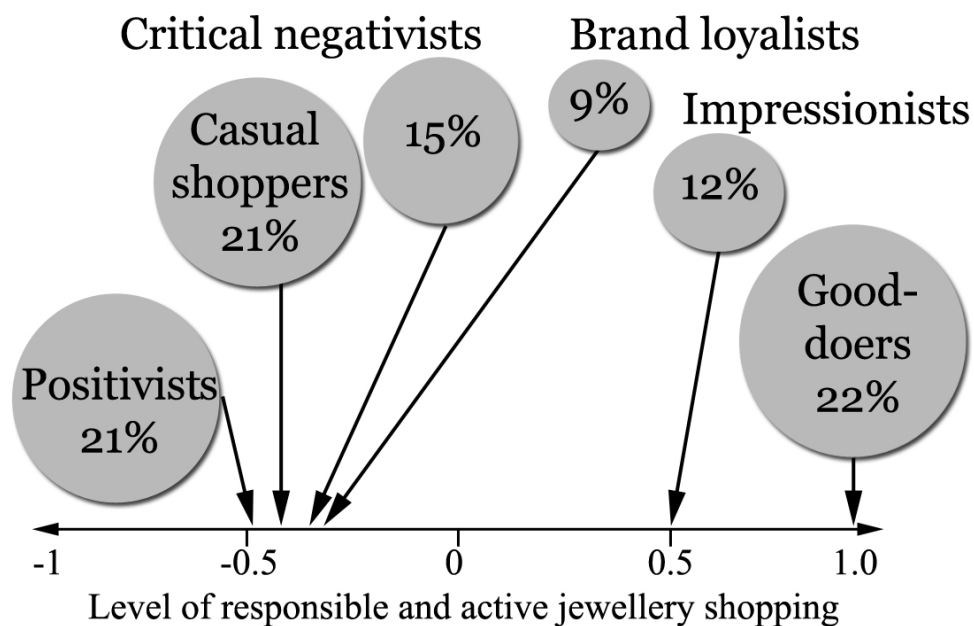


Figure 20. Cluster groups arranged in terms of their behavior as responsible and active jewellery shoppers, and their relative size.

Positivists are a group who perceive jewellery as ethical, like to think they know much, but actually the social, ethical, environmental matters do not really count when they are buying jewellery. They are young, well educated, with the lowest income. They are interested in buying from Internet, which is a good note for the future. However, currently they spend the least.

Casual shoppers have low awareness, are independent shoppers, are not loyal to brands, and they rely on their perceptions. They are not too much concerned of social, ethical, environmental matters, as these do not really count when they are buying. However, they would like to receive much more information of the social, ethical, environmental facts in jewellery. They are more likely men than women and they are also older. They know their consumer rights and shopping is more practical task to them. They like to do their shopping in a convenient way to them. Most importantly, they are good spenders.

Brand loyalists go with the flow, rely to others and have low awareness, but understand that there are important social, ethical, environmental matters behind their choices.

They are older, well educated, with the highest income. Also, they have the highest spending ratio. They like to trust their brands and arguably spend on expensive luxury brands, thus making highest relative spending.

Critical negativists perceive jewellery as unethical, are critical to new information, and like to think they are aware of the social, ethical, environmental matters in jewellery. They are also older, with lowest education, who work in low-level manager positions. They are medium spenders, and in relative terms, are the smallest group. They are the only group strongly believing that silver and gold are not ethical materials.

Good-doers are extremely active and responsible jewellery buyers. However, they still need to rely much on their perceptions, and thus would like to receive much more information of the social, ethical, environmental facts in jewellery. *Good-doers* are young, mainly blue collar or basic workers, who have only a medium spending on jewellery. However, taking their age into account, this biggest group will become very influential in the coming next ten years. They like to do the 'right' thing and want more information. Therefore, a key competitive advantage in the competition of these customers, in the coming years, is to have as much as possible transparent information present explaining the origins and sources of the raw materials and parts used in the jewellery they are buying.

Impressionists are the softer version of good-doers. They are affected greatly by the jewellery shop image and the sales person. They like to think they are aware of the social, ethical, environmental matters in jewellery, and understand that they are important issues. They are also young, but they are well educated. However, they do not know their consumer rights well. Perhaps, this is because of their young age. Overall, they are interested in buying from Internet, and they are medium spenders. This is also a growing consumer group. They like to ask a lot of questions, and are easily affected by the seller's knowledge.

6.1.3 All Things Equal, Consumers Prefer Ethical Jewellery

It was a clear research finding that consumers prefer to buy ethically made jewellery. Despite that they might not be willing to make extra effort, nor pay more, they would prefer products of which their sound origins they can be sure of. In addition, it was unclear for the consumer where he or she can buy ethical jewellery. In fact, for most people it was a new idea, and the questionnaire made them more aware, and to question the origins of the jewellery pieces they buy. Also, many noted that currently there is not enough information present about the jewellery and their origins.

To gain a competitive advantage, or merely improve customer loyalty, there are three things to consider. First, a complete check on company supply chain should be made to reflect the ethical, social, and environmental values. A good check-list of what this means in practice is referred in Appendix I, where the code of conduct for jewellery industry is presented. It is an excellent checklist to make sure that everything is done 'right'.

Second, company transparency should be improved. This means openly discussing the manufacturing processes and the origins of the raw materials and subassemblies. In addition, it is worthwhile to describe how quality is managed, and how it is ensured that the customer gets the perfect jewellery piece. Arguably, most jewellery companies have sound operating principles, and then this comes only as a question of communicating the message.

Third, branding and communication in general, are useful tools and the impact of it should not be underestimated. Thus, the jewellery should be branded as ethically made, and images of 'right' social and environmental methods could be used to make the consumer perceive the brand like it is "*all that living a good life represents*". This should then make the choice easy for the consumer to make. All that is needed is plain and honest information on how the jewellery market operates, where the materials and finished products come from, and how they are manufactured. By giving the consumer

more information, and by educating him and herself, the investment should bring significant returns in the coming years.

6.2 Managerial Implications for the Jewellery Industry

This research provides many good lessons on jewellery industry and insights and suggestions how to improve and develop a better jewellery business. Here is a list of managerial implications that were discovered during this research study.

- Be proud, the jewellery industry overall is seen in a positive light.
- Jewellery is a form of art, thus a company in jewellery should value their creative personnel highly and show it to them as well.
- It seems that there are a natural need for jewellery in human nature. Although, the materials used might vary in the future, it is sure that jewellery will continue to stay as an essential part of human behavior and interaction.
- Before announcing any company standards of ethical, social, and environmental practices, the company should first conduct a comprehensive check on all of the suggested values and business practices.
- Include women in the company staff, especially in the director and executive levels, since women seem to be more sensitive on ethical, social, and environmental issues.
- Include and take men in to consideration when planning advertisement campaigns, since they buy the most expensive jewellery pieces.
- Begin to sell more jewellery of ethical origins, since it can be expected that its demand will choose the winners in the industry during the next ten years, when the ethical-minded generations will begin to dominate the demand.
- Invest and study jewellery ecommerce and the possibilities in the web. It is expected to become very important during the next ten years, when the Internet generation begins to gain its wealth. Take use of the younger Web proficient generation.

- Do not over-emphasize self-rewarding in marketing communications, since is not very common.
- Give open and transparent information about the company and the products to the customer to increase customer loyalty and preference.
- Offer “ethical” jewellery and provide it with sufficient information to gain new customers.
- Train your sales staff, they are the key in successful jewellery retail.
- Study which origins label do your customers prefer. Do they prefer the country-of-design (COD) or country-of-manufacture. Then stress this accordingly to gain more customer confidence.
- If you wish to build customer loyalty further than current range, you must do more than satisfy the customer. You need to go beyond and *delight* the customer. (Check **Table 8** for detail)
- All consumers across globe are now expecting that businesses will improve their ethical behavior. Be part of this change, and embrace the change toward higher ethical operating grounds. Communicate and brand this change, and you will win.
- Consumers have a specifics likes and dislikes what they what to do in the shop. Check your shop floor sales staff that they actually help to facilitate this behavior (Check Table 7 for detail)

6.3 Business Plan for an Internet Jewellery Startup – A Case Study

The World needs novel business. It creates jobs and it reshapes the World to meet the new requirements. Existing business changes and has its impact, however it is often better and more effective to just begin fresh. The numerous new big businesses are a good example of this. Therefore, in this case study all the essential findings of this study are summarized, processed, and presented in the form of a business plan. The aim of this chapter is to offer the results in a form that as many as possible, weather a big

company or a small potential entrepreneur, can take them in full use, and establish new business with higher sustainability and responsibility.

A good business plan usually consists of the following: *Executive summary; Industry, customer and competitor analysis; Company and product description; Marketing plan; Operations plan; Development plan; Team; Critical Risks; Offering (if seeking investment); Financial Plan; Appendices* (NOVA 2010). It is always good to write a business plan **before** beginning the operations. It acts then as a roadmap where to go and it is a good document to share information among the different stakeholders. The following case study can act as a foundation structure to build a business plan.

EXECUTIVE SUMMARY

The aim is to establish a jewellery web shop that sells products of high ethical, social, and environmental standards. The company is transparent in its operations, communication, and origins of its materials. Offering's foundation lies in designing jewellery pieces that carry a story and have been created with love. The company has a dedicated management team and the stakeholders believe in the company values. Main delivery channels are post and courier services while sales are done through the web shop, and brand flagship stores in key cities.

INDUSTRY, CUSTOMER, AND COMPETITOR ANALYSIS

Internet jewellery sales account to approximately 3-5 % of the global trade, or in monetary terms roughly 7-12 billion USD. Naturally this offers quite impressive opportunities. There are numerous companies involved, but the competition is still developing, due to the freshness of the market.

The nature of jewellery industry can be argued to be a blue ocean. This means that there is plenty of room for business and new companies to chart merely new territories and not begin to battle in the competition (Chan Kim and Mauborgne 2005). With a new offering a company attracts new customers and thus the creative process of the jewellery design comes in to focus. It must be done well! In this sense

competition is about providing the consumers as many different designs as possible. One new company contributes to the industry if the design is original. Therefore, if the focus is in creating beautiful original design, the competition is rendered irrelevant.

COMPANY AND PRODUCT DESCRIPTION

The company is essentially about creating jewellery with love. This must be felt through everything that the company does. Every jewellery piece must have a story with it and the creative process must be sustained by using dedicated talented creative personnel. The company values must be honest and reflect this commitment while making sure that every stakeholder takes pride in dealing with the company. There must be created a feeling that the company and what it does is something special. It must be something that everyone can feel, but it might be something that is very hard to articulate. This has 'thing' can be referred as Mojo (Burlingham 2005).

*As **design**, the other two drivers are **price** and **trust**. Price can be established by calculating sufficient margins in the right price point category. The best price point category is 50 – 200 € (Gianforte and Gibson 2005), since it is high enough to decrease the overhead relating to number of individual sales and low enough to be affordable to the majority of the public. On the other hand, if one wants to attract customers from different segments, there should be products in different price categories.*

In the offering there may be products with different margins, however those products that are used to attract customers with discount campaigns must have higher margins. Since in a discount campaign, you might lower the prices down to even -75 % therefore the cost of goods sold (COGS) must be in the range of 10 %, or even lower, for to make that 15 % profit and have successful campaigns. The bulk of the products should not exceed COGS of 30 %.

Engagement rings make a big proportion of the jewellery business. Many are willing to invest even higher sums of money in that special occasion. It is good to note this.

In addition, necklaces, rings and earrings make the bulk of sales. Thus, it is vital to concentrate on these in the offering.

One interesting aspect to consider is a service based business model. In this concept the revenues would become more steady and predictable. Yet, the key is to discover what kind of a service would constitute high value add to the customer. In detail this idea would revolve around the idea that the customer pays a fixed service fee and in return gets, or get the chance to pick, a new jewellery piece in certain time periods. This is a worthy concept to do testing with. It might prove to be successful.

Material selection is essential for the product offering and price point planning. Gold and silver are the natural materials of course, but a third more affordable material could be for example copper, bronze, or brass. Also, wood, plastic, glass, semi precious rocks and other materials could be considered given the suitability to business idea. However what matters is the labelling of the products. All products should have extensive descriptions what materials are used, how they are made, how the jewellery piece is made, and where do they come from. The more transparent the labelling is the better. Simultaneously the ethical background check can be made. If the origins and production methods are unknown, it might be better not to use them. Only safe and sound materials should be used.

Finally, it is good to remember that jewellery relates to social acceptance, friendship, success, and self esteem. This means that the design and stories should be written and created keeping in mind these aspects. The jewellery pieces must be such that as many as possible can wear them, they can be exchanged as items of friendship, and they communicate values of success, self-esteem or just feelings. Thus by building a comprehensive set of messages in the form of jewellery pieces, one can provide the necessary vocabulary for consumers to express themselves.

MARKETING AND COMMUNICATIONS PLAN

The key to success is to build a transparent, honest, and rich description of the supply chain and the production methods. If the jewellery pieces require craftsmanship, it is

important to emphasize it, since it creates a lot of value add in the consumers mind. Many luxury brands communicate craftsmanship as one of their core product element, thus why not do the same. It adds value. This key communication can consist of written text, however videos and different charts and framework illustrations are good as well. This communication should be done well in the beginning and be updated to best reflect the reality through time. Despite it is risky, it is good to inform of the typical risks that are used in the industry, and name those that are used by the company.

Company values should be included in all the communications materials throughout the different type of messaging as well as in explicit form. It is good advice to build these values up from the management teams personal values. This ensures consistency so that what is said will be actually done. It is not good practice to communicate something that does not happen in reality, since these things easily can cause problems. The everyday consumer business experience sets how the values are experienced at the end. A good check list is to check Responsible Jewellery Councils Code of Professional Practices to see what is essential. And of course to get such team members who actually care about these matters.

Finally remember that the main drivers are design, your brand, price, and trust. Since these are what really matters, all communication should be directed amplify these elements to higher grounds. Company communication should answer the following questions. Why our design is so superior? Why our brand has higher values than others in the same price category? Why we are not expensive? Why you can trust our company? This will create the momentum for sales.

OPERATIONS PLAN

The company should be built around a concept of modular structure. This means the business should start small, but with a structure that is can maintain easily more complex structure. Mainly the modular structure comes from adding new languages (new target markets), new jewellery materials (diversify price point segments), new

products categories, new business models (if the service business model works). The company could be started with two languages, namely with local language and then English. This forces the system to be multilingual from day one, thus it is easier to add more languages later. Materials can be planned in a way to first hit the biggest segment, that is jewellery pieces in 50 – 200 € per piece, and then proceeding to other categories.

For a Finnish jewellery start-up it might be feasible to consider Russian as the second language, due to the country location and the size of Russian jewellery market. Then again for South American based business, it would be Spanish and English. These all depend basically where the original location of the company is. The near community brings certain value-adds and one big international language gives sales momentum when the concept begins ripe for big markets. Overall, it is good to remember to make the shopping as easy as possible and to optimize the inventory with the pieces that people actually want to buy. Constant surveys and checking should tackle this.

Social media is good way of getting feedback. Though it is good to remember to start doing it only if you are available to cater it actively. In detail this means answering to the different comments and posting new updates. Negative feedback is okay, but only if you correspond with a good manner. There are a lot of comments that people merely shout. It is good to remain polite and reply professionally. This can actually have a positive impact. Thus, Facebook, Youtube, Twitter, Blogs, and forums are all good. But control the time usage, since these can easily take too much time.

*Shopping must be a pleasurable experience. Thus have a good selection of jewellery, variety of price ranges, nice graphical design and colors, easy navigation, and clear display. **Less is more and simple is beautiful.** Further, customers also have often quite a lot of questions. One way to decrease the workload is to provide a question reply section. Then one question can ideally be answered only once.*

Customer want also to touch the products, fit them, discuss about the products and to get a good deal. Although this business is a web based business, one way is to set up the supply chain so that you make a deal with the postal office of courier of a free customer return. Honestly, this works well in the national sales, but can be very tricky for international sales. Then again the imperative is to understand why the customers make the returns and try to minimize it. Cost incurred at the start might be gained in bigger business size later on when the problems with returns have been dealt with. At the end it is a minority who make the returns anyhow. In addition remember to provide customers unexpected bargains or value-adds. These delight the customer and can trigger word-of-mouth recommendations, the best marketing there is.

DEVELOPMENT PLAN AND TEAM

The development plan is rather straightforward. Get a web shop first. There are completely free ones, they can be found out by using Google with search words “open source ecommerce” or “open source web shops”. Web hotels can also be found free. These are suitable for small operations, but a good option in the testing phase, though it might require some IT skills. Easy option is readymade commercial options.

*One perhaps best commercial web shop is **ePages**. Similarly this can be searched from the Internet. They have many suppliers, so it is best to contact those who can provide the languages that are needed. Similarly there are numerous options for payment handling. Best is to run a search, contact providers for details, and select the most suitable options. It is relatively easy process to define the payments in the ePages administrator-side. It does not require any programming skills. Then when the web shop is set last thing to do is to set Google analytics and Adwords to get some customers flowing to the site. These are easy to set and budgeting can be from 0,01 cents a day to basically no limits. There are numerous guides in the Web on*

Google Adwords marketing. It is good to look at these before spending too much money.

There are basically two good options for the team. First, rather simple is to do it all your self. If you are starting from scratch this is good option from the prospective of ownership. You own 100% and you control everything. Sadly this is also the worst thing. If you fail, the company fails. Also it might not be very easy to take a break or a holiday if you have designed the business so that it needs you daily to take care of itself. Time wise doing it all your self puts restrictions. If it is only one person, the weekly input could be somewhere between 10 to 60 hours, compare this to a team of three you can triple these number, namely 30 to 180 hours. This makes a difference. Therefore second option is to have a team of tree. Many in the field support this number. If there is a disagreement there is often a third to facilitate the quarrel, if one has an excellent idea he or she needs to convince the others (a good test of the idea), there is always two others to ask advice, and finally there is triple the amount of experience, skills and time available for input. Imperatively the team members should be complementing each other from the perspective of skill and experience. For example there should be a designer jewellery smith, a web developer, and a business savvy sales man. This team should tackle the problems. It is not very common to have all this in one person, although one can learn.

CRITICAL RISKS

What is the worst that can happen? The invested time and money is lost. Thus to keep this risk in mind the game should be started with relatively low bets. Designs, concept, planning, prototyping should all be done using as little funding as possible. Customers vote with their money, thus have this as the main determining factor. Let the customers tell what they like and what they dislike. Use their preferences, especially in the beginning, to guide the venture on right tract. Then only when you are sure and you have plain evidence in recoded sales, begin to invest more to get

momentum. Also, in making extra investments make sure the emphasis is on making more sales. In the end in business the highest cost is getting new customers.

OFFERING AND FINANCIAL PLAN

One way to get investors is to make a sound business plan, project sales, and calculate the net present value based on those calculations and try to sell a proportion of your company based on those figures. When the sale is done the investment is put into the company and the ownership is divided accordingly. Let us take an example. There is an estimation of the company present value at 80 000€. You wish to sell 20% ownership for an investment stake. For an external investment on 20 000€ the new value of the company is 100 000€ and you remain as the majority owner with 80%.

Investors add more professionalism, business advice, but they decrease autonomy. Therefore, before taking money it is always good to reflect what you wish to do. Is it something personal what you are doing or is it just a means of making money.

If you wish to keep your autonomy, the financial plan is rather simple. The funds you have constitute your maximum finance. The word you are after is bootstrapping. Of course you can take money from the bank, but this would not be advised unless you have already a proven business on going with recorded revenues, and the loan is in right proportion to the business.

APPENDIXES

It is good to project precise sales estimates with the cost drivers in the form of income statement up to five years ahead, show according financial planning and cash flow requirements. The more professional touch, the better are the chances to attract others to the venture. Especially investors. In addition, it might be worthwhile to sketch some designs and ideas how the jewellery might look like. If there is no motivation to attract external funding, the plan is still good to make. It makes the planning concrete and it is always good to ask some opinions of others. There can

easily be cost and time saving done by this way. Finally, remember to keep it simple, less is more, and that the customer finally gives the judgement with his or her money.

There are infinite opportunities. If one sets sail with a clear mind, well built structure, and does not forget to ask a lot of questions before and during the trip reaching the destination is possible. Therefore at the end, a worthy destination is what makes the trip. Thus set clear aim and know what you want to do before you start. The journey is the reward.

6.4 Limitations and Implications for Future Research

This study was limited mainly in the time-frame for in which the survey was planned and conducted. Given the short time, the survey was planned relatively quickly, and despite of a good literature review, it perhaps lacked some questions that looking retrospectively could have been included in the questionnaire. However, as the subject is vast, the questionnaire served its purpose well and revealed many key characteristics of jewellery buying consumers. Essentially, the survey provided more than enough data to analyse the thesis topic.

Then, a good notion is the fact that attitude research does not necessarily prove behavior. Often, they are two different matters what people say they will do and how they will actually behave. Despite that this may have an effect, arguably the results overall point to the right direction, and can be trusted. At the end, consumers vote with their money.

Another key limitation was the country focus of the survey. All respondents were Finnish nationals, an assumption that can be made because of the survey language, and it brings about a certain bias in the responses. However, in general the results can be assumed to be similar to the rest on Nordic Countries, and relatively similar to the North European countries. However, the further from Finland one goes, naturally the less accurately can these results be applied. It would be interesting to study how the results

would differ in a multi-country-study, where the consumer perceptions and attitudes could be measured and put in relation to each other.

Overall, all research relating to jewellery is be welcome, as it is not abundant. Different people and professionals in the field are interested in different aspects of jewellery related research. E.g. the retail sector is interested in how to speed up inventory turnover, designers and retail chains are interested in where are the consumer's taste and preferences going, production managers are interested in the new technologies and especially rapid prototyping CAD applications, while big company CEO's are interested in the tied-up capital in the industry and means to decrease it. All this offers great opportunities for future research. Nevertheless, this study had an important topic, which is sustainability and corporate social responsibility (CSR). Essentially, having nothing else than excellent track record in ethical, social, and environmental practices in jewellery guarantees that jewellery is bought, with an honest conscience, to facilitate the happy moments in life. Therefore, it should be every company's number one mission to bring to the market jewellery pieces of highest ethical standards.

REFERENCES

Journals and Publications

Aiello, G. Donvito, R. Godey, B. Pederzoli, D. et al. 2009. An international perspective on luxury brand and country-of-origin effect. *Journal of Brand Management*. London. Mar-May 2009. Vol. 16, Iss. 5-6; p.323. 15p.

Antonides, G. Raaij, W.F. 1998. *Consumer Behavior – A European Perspective*. John Wiley and Sons Ltd. Chichester, England. 619p.

Armstrong, J.S. Overton, T.S. 1977. Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*. XIV. August. p.396-402.

Arnold, M.J. Reynolds, K.E. Ponder, N. Lueg, J.E. 2005. Customer delight in a retail context: investigating delightful and terrible shopping experiences. *Journal of Business Research*, Volume 58, Issue 8, August 2005, p.1132-1145.

Arnould, E. Price, L. Zinkhan, G. 2004. *Consumers*. McGraw-Hill Companies Inc. New York.

Auger, P. Devinney, T. Louviere, J. 2007. Using Best–Worst Scaling Methodology to Investigate Consumer Ethical Beliefs Across Countries. *Journal of Business Ethics*, Feb2007, Vol. 70 Issue 3, p.299-326, 28p.

Beauchamp, T.L. Bowie, N.E. (Editors). 1979. *Ethical Theory and Business*. Prentice-Hall. New Jersey. 642p.

Bedford, T.M. 2000. Ethical consumerism: everyday negotiations in the construction of an ethical self (BL). UK. University of London. University College London.

Bergenstock, D.J. Maskulka, J.M. 2001. The De Beers Story: Are Diamonds Forever? Business Horizons. May-June. 37-44p.

Boyce, R. 2010. Interview and informal discussions. Jeweller. A professional with over 40 years industry experience. Brisbane, Australia.

Burlingham, B. 2005. Small Giants: Companies That Choose to Be Great Instead of Big. Penguin Group.

Brokaw, S.C. 1990. An investigation of jewelry store image structure. The Florida State University, 1990. 240p.

Cavender, R.S. 2009. Luxury goods: Still strong sellers. China Business Review. Vol 36:2. p.36-39

Chan Kim, W and Mauborgne, R. 2005. Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant. Harward business school publishing group.

Chevalier, M. Mazzalovo, G. 2008. Luxury Brand Management – A world of provelidged. John Wiley & Sons (Asia) Pte. Ltd. 421p.

Collins, J.W. 1994. Is business ethics an oxymoron? Business Horizons. Sept-Oct: 1-8

Crane, A. Matten, D. 2007. Business Ethics. 2nd ed., Oxford. Oxford University Press. England. 566p.

- Cudeck, R. 2000. Chapter 10: Exploratory Factor Analysis. Handbook of Applied Multivariate Statistics and Mathematical Modelling.
- Cunningham, Scott M. 1967. Perceived Risk and Brand Loyalty. In Donald F. Cox, ed.. Risk Taking and Information Handling in Consumer Behavior. Boston: Division of Research, Graduate School of Business, Harvard University, p.507-23.
- Darden, W.R. Reynolds, F.D. 1971. Shopping Orientations and Product Usage Rates. Journal of Marketing Research, Vol. VIII. Nov. p.505-8
- De Beers. 2008. Operating and Financial Review 2008.
- De Mooij, M. 2004. Consumer behavior and culture. Consequences for global Marketing and Advertising. Sage Publications Inc. London. 345p.
- Dubois, B. 1998. L'art du Marketing. Village Mondial. Paris. 292p.
- Dubois, B. Duquesne, P. 2001. Des Brevets et des marques, une histoire de la propriété industrielle (Patents and Trademarks: A History of Industrial Property), INPI (French Patent Office). Fayard.
- Evans, F.B. 1959. Psychological and Objective Factors in the Prediction of Brand Choice; Ford versus Chevrolet. Journal of Business, 12 (October), p.340-69.
- Everitt, B.S. Landau, S. Leese, M. 2001. Cluster Analysis. 4th ed., Oxford. Oxford University press.
- Flemming, H. Christensen, S.R. 2007. Emotions, Advertising and Consumer Choice. Copenhagen Business School Press. 462p.

Frederick, R. E. (Editor). 1999. *A Companion to Business Ethics*. Blackwell Publishers. Massachusetts. 464p.

Freud, S. 1952. *A General Introduction to Psychoanalysis*. New York. Washington Square Press.

Gianforte, G. and Gibson, M. 2005. *Bootstrapping Your Business: Start and Grow a Successful Company with Almost No Money*. Adams Media.

Hair, J.F.Jr. Black, W.C. Babin, B.J. Anderson, R.E. Tatham, R.L. 2006. *Multivariate Data Analysis*. 6th ed., Prentice-Hall, London.

Harrison, R. Newholm, T. Shaw, D. 2005. *The Ethical Consumer*. Sage Publications. London. 260p.

Hartlieb, S. Jones, B. 2009. Humanising Business Through Ethical Labelling: Progress and Paradoxes in the UK. *Journal of Business Ethics* 88: p.583–600.

Haugtvedt, C.P. Herr, P.M Kardes, F.P (editors). 2008. *Handbooks of Consumer Psychology*. Psychology Press. Taylor & Francis Group. New York. 1273p.

Heiskanen, E. Panzar, M. 1997. Toward sustainable consumption: two new perspectives. *Journal of consumer Policy*. 20: p.409-442.

Hill, M. 2007. *Toughen Up – Surviving your business through tough times*.

Hirvikorpi, H. Swanljung, E. 2008. *Kasvun vimma (The spree of growth)*. Talentum media Oy. Helsinki, Finland. 133p.

Hollensen, S. 2007. *Global Marketing*. 4ed. Prentice Education Limited. Harlow. England. 714p.

Iannone, A.P. (Editor) 1989. *Contemporary Moral Controversies In Business*. Oxford University Press. New York. 588p.

Jackson, P. 1997. *Quality in market research: a practical guide*. 223p.

Jamal, A. Goode, M. 2001. Consumers' product evaluation: A study of the primary evaluative criteria in the precious jewellery market in the UK. *Journal of Consumer Behavior*. Vol. 1 Issue 2, p140, 16p.

James F. E. Kollat, D.T. Blackwell, R.D. 1969. Personality Measures and Market Segmentation. *Business Horizons*, 12 (June), p.61-70.

Jamison, L. Murdoch, H. 2004. *Taking the Temperature. Ethical supply chain management*. Institute of Business Ethics. Pentland. London. 72p.

Jayawardhena, C. Wright, L. T. Masterson, R. 2003. An investigation of online consumer purchasing. *Qualitative Market Research*. Bradford: Vol. 6, Iss. 1; p. 58, 8p.

Jean-Ruel, E., 2008. *The effect of ethical attributes on brand personality and consumer-brand relationships*. Concordia University (Canada). 50.

Jones, J.L. Middleton, K.L. 2007. Ethical Decision-Making by Consumers: The Roles of Product Harm and Consumer Vulnerability. *Journal of Business Ethics*. 70. p.247–264

Kau, A.K. Tang, Y.E. Ghose, S. 2003. Typology of online shoppers. *The Journal of Consumer Marketing*. Santa Barbara: Vol. 20, Iss. 2/3; p.139, 18p.

Kavak, B. Gürel, E. Eryiğit, C. Tektaş, Ö. 2009. Examining the Effects of Moral Development Level, Self-Concept, and Self-Monitoring on Consumers' Ethical Attitudes. *Journal of Business Ethics*, Vol. 88 Issue 1, p.115-135, 21p.

Kilbourne, W. McDonagh, P. Prothero, A. 1997. Sustainable Consumption and the quality of life: A macro marketing challenge to the dominant social paradigm. *Journal of Macro Marketing*. 17(1): p.4-24

Laakso, H. 2005. *Brädit kilpailuetuna (Brands as source of competitiveness)*. Talentum. Hämeenlinna. Finland. 385p.

Lagier, J. Godey, B. 2007. A Scale for Measuring Aesthetic Style in the Field of Luxury and Art Products. *International Journal of Arts Management*; Winter 2007; 9, 2. 39p.

Lambkin, M. Foxall, G. Van Raaij, F. Heilbrunn, B. 1998. *European Perspectives on Consumer Behavior*. Prentice-Hall Europe. 432p.

Lehman, A. 2005. *JMP for basic univariate and multivariate statistics: a step-by-step guide*. 481p.

Lehtinen, U. 1991. *Alihankintajärjestelmä 1990-luvulla (Subcontraction system in the 1990s)*. Publications of SITRA. Helsinki. 114.p.

Machan, T.R. (Editor) 1999. *Business Ethics in the Global Market*. Hoover Institution Press. Stanford University. 142p.

Malhotra, Naresh K. and Birks, David F. 2007. *Marketing Research: An Applied Approach*. Third European ed., Pearson Education Limited, Essex, England.

McDaniel, c. Gates, R. 1998. *Marketing research essentials*. 462p.

McGee, R.W. (Editor) 1992. *Business Ethics & Common sense*. Quorum Books. London. 302p.

- Melé, D. 2009. *Business Ethics in Action Seeking Excellence in Organisations*. Palgrave Macmillian. New York. 419p.
- Mitchman, R. D. Mazze, E.M. 2006. *The affluent consumer. Marketing and Selling the Luxury Lifestyle*. Praeger. Westport. London. 194p.
- Monroe, K. B. Lee, A. Y. 1999. Remembering Versus Knowing: Issues in Buyers' Processing of Price Information. *Journal of the Academy of Marketing Science* 27(2). p.207–225.
- NOVA. 2010. Course: Entrepreneurial finance and venture capital. Course slides. Faculdade de Economia da Universidade Nova de Lisboa, Portugal
- Passas, N. Goodwin, N. (Editors) 2007. *It's Legal but It Ain't Right. Harmful Social Consequences of Legal Industries*. University of Michigan Press. Michigan. 279p.
- Robertson, T.S. Kassarijan, H.H. 1991. *Handbook of Consumer Behavior*. Prentice-Hall. New Jersey. 614p.
- Roy Y.J. Chua, X. Z. 2009. *The Devil Wears Prada? Effects of Exposure to Luxury Goods on Cognition and Decision Making*. Working Paper. Harvard Business School.
- Rugimbana, R. Quazi, A. Keating, B. 2008. Applying a Consumer Perceptual Measure of Corporate Social Responsibility. *Journal of Corporate Citizenship*, Spring2008, Iss. 29, p.61-74, 14p.
- Runci, M. A. 2004. Managing reputation risk for the jewelry industry. *National Jeweler*, 16th Jan. Vol. 98, Issue 2.
- Saarinen, P. 1994. *Kultasepäntavaroiden aggressiivinen ja sovinnainen markkinointi*. Helsinki. Kuluttajatutkimuskeskus 6. 46p.

Sambandam, R. Cluster analysis gets complicated. *Marketing Research*. Spring 2003. p.16-21.

Sanguanpiyapana, T. Jasper, C. 2009. Consumer insights into luxury goods: Why they shop where they do in a jewelry shopping setting. *Journal of Retailing and Consumer Services*. Volume 17, Issue 2, March 2010. p.52-160.

Schütte, H. Ciarlante, D. 1998. *Consumer Behavior in Asia*. Macmillian Business. London. 275p.

Smith, N.C. 1995. Marketing strategies for the ethics era. *Sloan Management Review*. 36(4). p.85-97.

Solomon, M.R. 2009. *Consumer Behavior. Buying, having, and being*. Pearson International edition. 8ed. Pearson Education International. New Jersey. 720p.

Strand, R. 2009. Corporate Responsibility in Scandinavian Supply Chains. *Journal of Business Ethics*. 85. p.179–185.

Takkinen, M. 2009. A Master's Thesis. Kuluttajan ostospaikan valintaperusteet. - Kyselytutkimus naiskuluttajien valintaorientaatiosta pääkaupunkiseudulla (The criteria of choosing the purchase location – A survey research of female consumers in the capital area). Helsinki school of economics. Helsinki

Tsalikis, J. Seaton, B. 2006. Business Ethics Index: Measuring Consumer Sentiments Toward Business Ethical Practices. *Journal of Business Ethics*. Dordrecht: Apr 2006. Vol. 64, Iss. 4. p.317

Tsalikis, J. Seaton, B. 2007a. The International Business Ethics Index: European Union. *Journal of Business Ethics*. Dordrecht: Oct 2007. Vol. 75, Iss. 3. p.229. 10p.

Tsalikis, J. Seaton, B. 2007b. Business Ethics Index: USA 2006. *Journal of Business Ethics*. Dordrecht: May 2007. Vol. 72, Iss. 2. p.163. 13p.

Tsalikis, J. Seaton, B. 2008a. Consumer Perceptions of Business Ethical Behavior in Former Eastern Block Countries. *Journal of Business Ethics*. Dordrecht: Nov 2008. Vol. 82, Iss. 4. p.919. 10p.

Tsalikis, J. Seaton, B. 2008d. The International Business Ethics Index: Japan. *Journal of Business Ethics*. Dordrecht: Jun 2008. Vol. 80, Iss. 2. p.379. 7p.

Tsalikis, J. Seaton, B. Shepher, P. 2008b. Relative Importance Measurement of the Moral Intensity Dimensions. *Journal of Business Ethics*. Dordrecht: Jul 2008. Vol. 80, Iss. 3. p.613. 14p.

Tsalikis, J. Seaton, B. Tiger, L. 2008c. The International Business Ethics Index: Asian Emerging Economies. *Journal of Business Ethics*. Dordrecht: Jul 2008. Vol. 80, Iss. 4; p.643. 9p.

Vassilikopoulou, A. I. Siomkos, G. J. Mylonakis, J. 2005 Clustering consumers according to their attitudes on corporate social responsibility. *International Journal of Business Governance and Ethics*. Olney: Vol. 1, Iss. 4. p.317

Wardlow, D.L. 1996. *Gays, Lesbians, and Consumer Behavior. Theory, Practice, and Research issues in Marketing*. Harrington Park Press. New York. 261p.

Zaltman, G. 2003. *How Consumers think. Essential insights into the mind of the market*. Harward Business School Press. Boston, Massachusetts.

Web references

Beijing Zeefer Consulting Ltd. 2010. China Jewelry Industry Profile. 24p. Accessed 28.7.2010 via (www.marketresearch.com).

Choyt, M. 2009. Accessed 22.11.2009 via: (<http://www.fairjewelry.org/about>).

Danziger, P. 2010. Personal Luxury Report 2010. Unity Marketing Inc. June 1, 2010. 252p. Accessed 28.7.2010 via (www.marketresearch.com).

Eurostat 2010. Accessed 3.8.2010 via:
(<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>).

Fonecta Digitaalinen suora. 2010. Accessed 13.3.2010. via
(<http://fonectadigitaalinsuora.fi>).

Garson, G. David. 2009. Statnotes: Topics in Multivariate Analysis. Accessed 22.11.2009 via: (<http://faculty.chass.ncsu.edu/garson/PA765/ttest.htm>, and
<http://faculty.chass.ncsu.edu/garson/PA765/anova.htm>).

Global Exchange. Still Waiting for Nike to Do It. Accessed 1.9.2011 via:
(<http://www.globalexchange.org/sweatfree/nike/stillwaiting>).

Jewelers of America. 2009. Accessed 22.11.2009 via:
(http://www.jewelers.org/suppliers/s_responsible/s_codeprofessional/index.php).

Kingsley, S., Miller, C. T. 2009. Accessed 24.11.2009 via:
(www.ethicalmetalsmiths.org).

KvantiMOTV. 2009. Kvantitatiivisten tutkimusmenetelmien valtakunnallinen oppimisympäristö. Accessed 22.11.2009 via: (<http://www.fsd.uta.fi/menetelmaopetus/faktori/faktori.html>).

Mailer Mailer. 2009. Email Marketing Metrics Reports. Accessed 24.6.2009 via (www.mailermailer.com/metrics.rwp).

Manninen, N. 2009. Tilastollisen tutkimuksen aineiston käsittely khin- neliö testing avulla. Accessed 22.11.2009 via: (<http://www.uta.fi/laitokset/hoito/wwwoppimateriaali/luku5d.html>).

Michael Hill. 2010. Position Description – Sales Professional. Accessed 20.6.2010 via (www.michaelhill.com.au).

Mintel International Group Ltd. 2007. Jewellery and Watches Retailing – UK. 151p. Accessed 28.7.2010 via (www.marketresearch.com).

Mintel International Group Ltd. 2008. Precious Metal Jewellery – UK. 95p. Accessed 28.7.2010 via (www.marketresearch.com).

Netscribes (India) Pvt. Ltd. 2010. Gems and Jewellery Market in India 2010. 50p. Accessed 28.7.2010 via (www.marketresearch.com).

Responsible Jewellery Council, 2009. Accessed 24.11.2009 via: (www.responsiblejewellery.com).

RNCOS. 2009. Indian Gems and Jewellery Market - Future Prospects to 2011. 70p.. Accessed 28.7.2010 via (www.marketresearch.com).

Statistics of Finland. 2009a. Accessed 25.3.2010 via: (http://www.stat.fi/tup/suoluk/suoluk_vaesto.html).

Statistics of Finland. 2009b. Accessed 25.3.2010 via: (http://www.stat.fi/tup/suoluk/suoluk_tulot.html).

Statistics of Finland. 2009c. Accessed 25.3.2010 via:
(http://www.stat.fi/til/vkour/2008/vkour_2008_2009-12-04_tie_001.html).

TUKES. 2009. (Safety Technology Authority of Finland) Accessed 22.11.2009 via:
(<http://www.tukes.fi/fi/Toimialat/Jalometallituotteet/>).

United Nations. 2009. Accessed 29.11.2009 via:
(www.un.org/esa/sustdev/publications/consumption_en.pdf).

Verdict Research Ltd. 2008. Global Jewellery Retailing 2008.135p. Accessed 28.7.2010
via (www.marketresearch.com).

Interviews

Boyce, R. 9.8. – 12.11.2010. Jeweller. Boyce Jewellery. Informal discussions. Brisbane.
Australia.

Currie, B. 9.8. – 12.11.2010. Production Manager. Michael Hill Jeweller. Informal
Discussions. Brisbane. Australia.

Fox, R. 7.12.2009. Designer silversmith (Distinguished professional). Interview.
London. UK.

Larsson, A. 12.5.2009. CEO of Association of Finnish Goldsmiths. Interview. Helsinki.
Finland.

Minkkinen, K. 9.11.2009. CEO of Finngold (Timanttiset). Interview. Tampere. Finland.

Nikkinen, P. 23.10.2009. Communications manager of Kalevala Koru Oy. Interview.
Helsinki. Finland

Ruohola, I. 12.5.2009. CEO of Kultakeskus Oy. Interview. Hämeenlinna. Finland.

Syväniemi, A. 2009 (*Specific interview date unavailable*). Production manager of
Kalevala Koru. Interview. Helsinki. Finland

Vicenzaoro First. 16.1 – 21.1.2010. International Jewellery Exhibiton. Numerous interviews. Vicenza. Italy.

Appendix I. Declaration of Code of Professional Practices

Source: Responsible jewellery council, 2009

CODE OF PROFESSIONAL PRACTICES

ETHICAL PRACTICES

- We will conform to all applicable law in the jurisdictions where we operate.
- We will conduct our business with honesty, sincerity, truthfulness, integrity and transparency.
- We will not engage in bribery and/or corruption. We will work to protect the industry and our clients against fraud, misrepresentation and unethical business practices.
- We will not tolerate money laundering and/or financing of terrorism. If applicable to our business, we will have an anti-money laundering (AML) program in place to fully comply with the USA Patriot Act.
- We will make every effort to ensure that we do not deal in the flow of conflict diamonds. We will fully comply with the Kimberley Process Certification Scheme and the World Diamond Council System of Warranties.
- We will fully and accurately disclose the material characteristics of the products and merchandise we sell.
- We will take reasonable measures to ensure the physical integrity and security of product shipments.
- We will respect commercial confidentiality and the data privacy of our employees, business partners and customers.
- We will strive to continuously improve our professionalism and expertise, as individuals and as a company.

SOCIAL AND HUMAN RIGHTS PRACTICES

- We will respect the fundamental human rights of all our employees, business partners and customers.
- We will conform to all applicable laws related to labor practices with regard to workers' rights and protections.
- We are committed to high standards of health and safety in our business.
- We will not discriminate against employees in accordance with applicable law.
- We will prohibit the use of degrading treatment, harassment, abuse, coercion or intimidation in any form in our business.
- We will adhere to all applicable laws related to working hours and compensation.
- We will strive to be good citizens and contribute to the communities in which we do business.
- We will recognize and respect the rights of all indigenous peoples, and the value of their traditional, cultural and social heritage.

ENVIRONMENTAL PRACTICES

- We will strive to conduct our business in an environmentally responsible manner.

- We will strive to manage our environmental footprint by eliminating or minimizing negative environmental impacts.
- We will strive to ensure the efficiency of our business operations by managing our use of resources and energy.

This Code is consistent with the principles of the Responsible Jewellery Council, which Jewelers of America cofounded in 2005.

Appendix II. The World Jewellery Market Sizes

Calculated estimates for World jewellery markets by size in billions of US Dollars.

Note the tolerance of 50 to 200% in these estimates.

Rank	Country	GDP per capita USD	Calc. Jewellery market size (BUSD)	Population (M)	Size (%) of World market	Cumulative size (%) of World market
0	EU27	23600	61.8	501.0	28.6%	
1	United States	46300	46.8	307.2	21.7%	21.7%
2	China	4900	21.6	1338.6	10.0%	31.7%
3	Japan	33400	14.0	127.1	6.5%	38.1%
4	India	2500	9.6	1166.1	4.4%	42.6%
5	Germany	34200	9.3	82.3	4.3%	46.9%
6	United Kingdom	35500	7.1	61.1	3.3%	50.2%
7	France	32800	6.9	64.1	3.2%	53.4%
8	Russia	14000	6.4	140.0	3.0%	56.4%
9	Brazil	9400	6.1	198.7	2.8%	59.2%
10	Italy	31200	6.0	58.1	2.8%	62.0%
11	Mexico	13900	5.1	111.2	2.4%	64.3%
12	Spain	33100	4.4	40.5	2.0%	66.4%
13	Canada	38700	4.3	33.5	2.0%	68.3%
14	Korea, South	25800	4.1	48.5	1.9%	70.2%
15	Turkey	11600	2.9	76.8	1.4%	71.6%
16	Indonesia	3500	2.8	240.3	1.3%	72.9%
17	Australia	36700	2.6	21.3	1.2%	74.1%
18	Iran	11300	2.5	66.4	1.1%	75.2%
19	Taiwan	29500	2.2	23.0	1.0%	76.3%
20	Netherlands	38600	2.1	16.7	1.0%	77.2%
21	Poland	15500	2.0	38.5	0.9%	78.1%
22	Saudi Arabia	19800	1.9	28.7	0.9%	79.0%
23	Thailand	7900	1.7	65.9	0.8%	79.8%
24	Argentina	12500	1.7	40.9	0.8%	80.6%
25	South Africa	9500	1.5	49.1	0.7%	81.3%

26	Pakistan	2400	1.4	176.2	0.6%	81.9%
27	Egypt	4900	1.3	83.1	0.6%	82.6%
28	Belgium	36200	1.2	10.4	0.6%	83.1%
29	Colombia	8200	1.2	45.6	0.6%	83.7%
30	Malaysia	14200	1.2	25.7	0.6%	84.3%
31	Sweden	37300	1.1	9.1	0.5%	84.8%
32	Venezuela	12300	1.1	26.8	0.5%	85.3%
33	Greece	30000	1.1	10.7	0.5%	85.8%
34	Austria	38300	1.0	8.2	0.5%	86.2%
35	Nigeria	2100	1.0	149.2	0.5%	86.7%
36	Switzerland	40000	1.0	7.6	0.5%	87.2%
37	Philippines	3100	1.0	98.0	0.5%	87.6%
38	Ukraine	6600	1.0	45.7	0.5%	88.1%
39	Hong Kong	40500	0.9	7.1	0.4%	88.5%
40	Norway	54900	0.8	4.7	0.4%	88.9%
41	Czech Republic	23700	0.8	10.2	0.4%	89.3%
42	Romania	10700	0.8	22.2	0.4%	89.7%
43	Portugal	21900	0.8	10.7	0.4%	90.0%
44	Chile	14000	0.8	16.6	0.4%	90.4%
45	Singapore	48500	0.7	4.7	0.3%	90.7%
46	Algeria	6600	0.7	34.2	0.3%	91.1%
47	Vietnam	2500	0.7	87.0	0.3%	91.4%
48	Peru	7300	0.7	29.5	0.3%	91.7%
49	Denmark	37200	0.7	5.5	0.3%	92.0%
50	Bangladesh	1300	0.7	156.1	0.3%	92.3%
51	Israel	26700	0.6	7.2	0.3%	92.6%
52	Hungary	19300	0.6	9.9	0.3%	92.9%
53	Ireland	45100	0.6	4.2	0.3%	93.2%
54	Finland	35200	0.6	5.3	0.3%	93.5%
55	United Arab Emirates	37400	0.6	4.8	0.3%	93.8%
56	Kazakhstan	10400	0.5	15.4	0.2%	94.0%
57	Kuwait	54300	0.5	2.7	0.2%	94.2%
58	Morocco	3800	0.4	34.9	0.2%	94.4%
59	New Zealand	27600	0.4	4.2	0.2%	94.6%
60	Ecuador	7100	0.3	14.6	0.2%	94.8%
61	Slovakia	18700	0.3	5.5	0.2%	94.9%
62	Iraq	3500	0.3	28.9	0.2%	95.1%
63	Cuba	8500	0.3	11.5	0.1%	95.2%
64	Syria	4700	0.3	20.2	0.1%	95.4%
65	Belarus	9800	0.3	9.6	0.1%	95.5%
66	Angola	7000	0.3	12.8	0.1%	95.7%
67	Libya	13300	0.3	6.3	0.1%	95.8%
68	Sri Lanka	3900	0.3	21.3	0.1%	95.9%
69	Bulgaria	11300	0.3	7.2	0.1%	96.0%
70	Sudan	1900	0.3	41.1	0.1%	96.2%
71	Croatia	17000	0.3	4.5	0.1%	96.3%

72	Tunisia	7200	0.2	10.5	0.1%	96.4%
73	Puerto Rico	18700	0.2	4.0	0.1%	96.5%
74	Dominican Republic	7400	0.2	9.7	0.1%	96.6%
75	Qatar	85600	0.2	0.8	0.1%	96.7%
76	Guatemala	5000	0.2	13.3	0.1%	96.8%
77	Oman	19200	0.2	3.4	0.1%	96.9%
78	Kenya	1600	0.2	39.0	0.1%	97.0%
79	Uzbekistan	2200	0.2	27.6	0.1%	97.1%
80	Ethiopia	700	0.2	85.2	0.1%	97.2%
81	Yemen	2400	0.2	23.8	0.1%	97.3%
82	Azerbaijan	6900	0.2	8.2	0.1%	97.4%
83	Lithuania	15600	0.2	3.6	0.1%	97.5%
84	Slovenia	26700	0.2	2.0	0.1%	97.5%
85	Burma	1100	0.2	48.1	0.1%	97.6%
86	Tanzania	1200	0.2	41.0	0.1%	97.7%
87	Costa Rica	10800	0.2	4.3	0.1%	97.8%
88	Cameroon	2300	0.1	18.9	0.1%	97.8%
89	El Salvador	6000	0.1	7.2	0.1%	97.9%
90	Lebanon	10300	0.1	4.0	0.1%	98.0%
91	Bolivia	4200	0.1	9.8	0.1%	98.0%
92	Korea, North	1800	0.1	22.7	0.1%	98.1%
93	Luxembourg	79600	0.1	0.5	0.1%	98.1%
94	Uganda	1200	0.1	32.4	0.1%	98.2%
95	Uruguay	10700	0.1	3.5	0.1%	98.3%
96	Latvia	16300	0.1	2.2	0.1%	98.3%
97	Cote d'Ivoire	1700	0.1	20.6	0.1%	98.4%
98	Panama	9900	0.1	3.4	0.1%	98.4%
99	Honduras	4200	0.1	7.8	0.0%	98.5%
100	Ghana	1300	0.1	23.8	0.0%	98.5%
101	Jordan	4800	0.1	6.3	0.0%	98.6%
102	Nepal	1000	0.1	28.6	0.0%	98.6%
103	Paraguay	3900	0.1	7.0	0.0%	98.6%
104	Bosnia and Herzegovina	5900	0.1	4.6	0.0%	98.7%
105	Botswana	13400	0.1	2.0	0.0%	98.7%
106	Trinidad and Tobago	21500	0.1	1.2	0.0%	98.8%
107	Estonia	20200	0.1	1.3	0.0%	98.8%
108	Cambodia	1800	0.1	14.5	0.0%	98.9%
109	Turkmenistan	5100	0.1	4.9	0.0%	98.9%
110	Bahrain	33300	0.1	0.7	0.0%	98.9%
111	Senegal	1600	0.1	13.7	0.0%	99.0%
112	Jamaica	7500	0.1	2.8	0.0%	99.0%
113	Brunei	54400	0.1	0.4	0.0%	99.0%
114	Gabon	13700	0.1	1.5	0.0%	99.1%
115	Congo,	300	0.1	68.7	0.0%	99.1%

	Democratic Republic of the					
116	Albania	5400	0.1	3.6	0.0%	99.1%
117	Madagascar	900	0.1	20.7	0.0%	99.1%
118	Georgia	4000	0.1	4.6	0.0%	99.2%
	Equatorial					
119	Guinea	29000	0.1	0.6	0.0%	99.2%
120	Mozambique	800	0.1	21.7	0.0%	99.2%
121	Burkina Faso	1100	0.1	15.7	0.0%	99.3%
122	Afghanistan	600	0.1	28.4	0.0%	99.3%
	Macedonia, The Former Yugoslav					
123	Republic of	8200	0.1	2.1	0.0%	99.3%
124	Zambia	1400	0.1	11.9	0.0%	99.3%
125	Chad	1600	0.1	10.3	0.0%	99.4%
126	Nicaragua	2800	0.1	5.9	0.0%	99.4%
	Congo,					
127	Republic of the	4000	0.1	4.0	0.0%	99.4%
128	Macau	28400	0.1	0.6	0.0%	99.4%
129	Armenia	5200	0.1	3.0	0.0%	99.5%
130	Mali	1200	0.1	12.7	0.0%	99.5%
131	Mauritius	11100	0.0	1.3	0.0%	99.5%
132	Benin	1500	0.0	8.8	0.0%	99.5%
133	Laos	1900	0.0	6.8	0.0%	99.5%
134	Namibia	6000	0.0	2.1	0.0%	99.6%
135	Iceland	40100	0.0	0.3	0.0%	99.6%
	Papua New					
136	Guinea	2000	0.0	6.1	0.0%	99.6%
137	Tajikistan	1600	0.0	7.3	0.0%	99.6%
138	Haiti	1300	0.0	9.0	0.0%	99.6%
139	Malawi	800	0.0	14.3	0.0%	99.6%
140	Guinea	1100	0.0	10.1	0.0%	99.7%
141	Kyrgyzstan	1900	0.0	5.4	0.0%	99.7%
142	Moldova	2200	0.0	4.3	0.0%	99.7%
143	Malta	23300	0.0	0.4	0.0%	99.7%
144	Niger	600	0.0	15.3	0.0%	99.7%
145	Bahamas, The	29600	0.0	0.3	0.0%	99.7%
146	Rwanda	800	0.0	10.5	0.0%	99.7%
147	Mongolia	2700	0.0	3.0	0.0%	99.8%
148	West Bank	2900	0.0	2.5	0.0%	99.8%
149	Mauritania	2100	0.0	3.1	0.0%	99.8%
150	Somalia	600	0.0	9.8	0.0%	99.8%
151	Montenegro	8400	0.0	0.7	0.0%	99.8%
152	Togo	900	0.0	6.0	0.0%	99.8%
153	Swaziland	4700	0.0	1.1	0.0%	99.8%
154	Barbados	18500	0.0	0.3	0.0%	99.8%
155	Jersey	57000	0.0	0.1	0.0%	99.8%

	French					
156	Polynesia	17500	0.0	0.3	0.0%	99.8%
157	Bermuda	69900	0.0	0.1	0.0%	99.8%
158	Liechtenstein	118000	0.0	0.0	0.0%	99.9%
159	Fiji	4200	0.0	0.9	0.0%	99.9%
160	Eritrea	700	0.0	5.6	0.0%	99.9%
161	Suriname	8200	0.0	0.5	0.0%	99.9%
162	Sierra Leone	600	0.0	6.4	0.0%	99.9%
	Netherlands					
163	Antilles	16000	0.0	0.2	0.0%	99.9%
164	Burundi	400	0.0	9.0	0.0%	99.9%
165	New Caledonia	15000	0.0	0.2	0.0%	99.9%
166	Andorra	38800	0.0	0.1	0.0%	99.9%
	Central African					
167	Republic	700	0.0	4.5	0.0%	99.9%
168	Lesotho	1400	0.0	2.1	0.0%	99.9%
169	Guernsey	44600	0.0	0.1	0.0%	99.9%
170	Bhutan	4100	0.0	0.7	0.0%	99.9%
171	Guyana	3600	0.0	0.8	0.0%	99.9%
172	Man, Isle of	35000	0.0	0.1	0.0%	99.9%
173	Guam	15000	0.0	0.2	0.0%	99.9%
174	Belize	8400	0.0	0.3	0.0%	99.9%
175	Zimbabwe	200	0.0	11.4	0.0%	99.9%
176	Aruba	21800	0.0	0.1	0.0%	99.9%
177	East Timor	1900	0.0	1.1	0.0%	99.9%
	Cayman					
178	Islands	43800	0.0	0.0	0.0%	99.9%
179	Gambia, The	1200	0.0	1.8	0.0%	99.9%
180	Djibouti	3500	0.0	0.5	0.0%	100.0%
181	Saint Lucia	10900	0.0	0.2	0.0%	100.0%
182	Maldives	4400	0.0	0.4	0.0%	100.0%
183	Gaza Strip	1100	0.0	1.6	0.0%	100.0%
184	Seychelles	18900	0.0	0.1	0.0%	100.0%
185	Virgin Islands	14500	0.0	0.1	0.0%	100.0%
	Antigua and					
186	Barbuda	18100	0.0	0.1	0.0%	100.0%
187	Faroe Islands	31000	0.0	0.0	0.0%	100.0%
188	Cape Verde	3400	0.0	0.4	0.0%	100.0%
189	Liberia	400	0.0	3.4	0.0%	100.0%
190	San Marino	41900	0.0	0.0	0.0%	100.0%
191	Greenland	20000	0.0	0.1	0.0%	100.0%
192	Grenada	12300	0.0	0.1	0.0%	100.0%
	Northern					
	Mariana					
193	Islands	12500	0.0	0.1	0.0%	100.0%
194	Mayotte	4900	0.0	0.2	0.0%	100.0%
195	Samoa	4700	0.0	0.2	0.0%	100.0%
196	Western	2500	0.0	0.4	0.0%	100.0%

	Sahara					
197	Monaco	30000	0.0	0.0	0.0%	100.0%
	Saint Vincent and the					
198	Grenadines	9400	0.0	0.1	0.0%	100.0%
	Solomon					
199	Islands	1600	0.0	0.6	0.0%	100.0%
	British Virgin					
200	Islands	38500	0.0	0.0	0.0%	100.0%
201	Guinea-Bissau	600	0.0	1.5	0.0%	100.0%
202	Vanuatu	4100	0.0	0.2	0.0%	100.0%
203	Comoros	1100	0.0	0.8	0.0%	100.0%
204	Gibraltar	27900	0.0	0.0	0.0%	100.0%
	Saint Kitts and					
205	Nevis	18600	0.0	0.0	0.0%	100.0%
206	Dominica	9600	0.0	0.1	0.0%	100.0%
207	Kiribati	5300	0.0	0.1	0.0%	100.0%
208	Tonga	4700	0.0	0.1	0.0%	100.0%
	American					
209	Samoa	5800	0.0	0.1	0.0%	100.0%
	Sao Tome and					
210	Principe	1300	0.0	0.2	0.0%	100.0%
	Turks and					
211	Caicos Islands	11500	0.0	0.0	0.0%	100.0%
	Micronesia,					
	Federated					
212	States of	2300	0.0	0.1	0.0%	100.0%
	Marshall					
213	Islands	2900	0.0	0.1	0.0%	100.0%
214	Palau	7600	0.0	0.0	0.0%	100.0%
215	Anguilla	8800	0.0	0.0	0.0%	100.0%
	Falkland					
	Islands (Islas					
216	Malvinas)	35400	0.0	0.0	0.0%	100.0%
217	Cook Islands	9100	0.0	0.0	0.0%	100.0%
218	Nauru	5000	0.0	0.0	0.0%	100.0%
	Wallis and					
219	Futuna	3800	0.0	0.0	0.0%	100.0%
	Saint Pierre					
220	and Miquelon	7000	0.0	0.0	0.0%	100.0%
221	Tuvalu	1600	0.0	0.0	0.0%	100.0%
222	Saint Helena	2500	0.0	0.0	0.0%	100.0%
223	Montserrat	3400	0.0	0.0	0.0%	100.0%
224	Niue	5800	0.0	0.0	0.0%	100.0%
225	Tokelau	1000	0.0	0.0	0.0%	100.0%

TOTAL: 215.9 Billion USD

Appendix III. Invitation to Participate to The Survey

Note! The invitation is in Finnish language and contain the logos of Helsinki School of Economics, since this invitation was sent in 14th December 2009, just before the University was named as Aalto University School of Economics.

Subject line: Pro Gradu-tutkimus korualasta, tutustu 18.12 mennessä

From: Henri Jokinen - Helsingin kauppakorkeakoulu

Html message:



Helsingin kauppakorkeakoulu

ARVOISA VASTAANOTTAJA!

Helsingissä 14.12.2009



Yritysten eettiset toimintatavat ja yhteiskuntavastuullisuus on jatkuvasti esillä julkisuudessa. Tämä on hyvä asia, sillä se osoittaa kuluttajien aktiivisuuden hyvän asian puolesta. Tutkimuksen, jonka aineistona tämä kyselylomake toimii, tarkoituksena on tutkia kuinka kuluttajien käyttäytyminen vaikuttaa eettisten toimintatapojen syntyyn koru- ja jalometalliteollisuudessa.

Tämä tutkimus on Helsingin kauppakorkeakoulun (HSE) Pro Gradu-tutkielma, joka on motivoitunut tutkijan omasta kiinnostuksesta tehdä vastuullista ja yhteiskunnallisesti hyödyllistä tutkimusta. Tässä tutkimuksessa tutkijana toimii diplomi-insinööri Henri Jokinen ja työn ohjaajana toimii Helsingin kauppakorkeakoulun professori Asta Salmi.

Aineisto kerätään sähköpostikutsun avulla. Sähköpostituksesta vastaa Roottori Oy (www.roottori.fi). Pyrimme saamaan mahdollisimman suuren aineiston, jotta saisimme tilanteesta mahdollisimman totuudenmukaisen kuvan, joten siksi jokainen vastaus on meille hyvin tärkeä. Vastaukset käsitellään luottamuksellisesti ja siten, että yksittäisen vastaajan tietoja ei voida tunnistaa.

Vastaa 18.12.2009 mennessä. Arvomme 20.12.2009 tutkimuksen yhteistyökumppanin (Tmi Helmikoru fi) toimesta osallistujien kesken 100 euron korulahjakortin. Kyselyn jälkeen on myös mahdollista tutustua vastaajille tarkoitettuun korutarjoukseen.

Kyselyn täyttäminen on nopeaa ja aikaa kuluu noin 10-15 minuuttia.

SIIRRY KYSELYYN, KLIKKAA [TÄSTÄ](#).

Halutessanne lisätietoja tutkimuksesta voitte ottaa yhteyttä tutkija Henri Jokiseen,

henri.jokinen@student.hse.fi

Etukäteen arvokkaasta avustanne kiittäen, Helsingin kauppakorkeakoulun puolesta,

Henri Jokinen

Diplomi-insinööri, Tutkija/opiskelija, Kauppatieteiden yo.

Kansainvälinen liiketoiminta/CEMS

Helsingin kauppakorkeakoulu

Appendix V. Translated Questionnaire

Note! The invitation

PAGE I. Respondent's knowledge on jewellery industry

1. Describe briefly (in 1 to 3 sentences) how do you understand ethics and jewellery? *OPEN ENDED, 388 replies.*

2. Estimate the proportion of jewellery sold in Finland that is also manufactured in Finland?

- | | | |
|---------------------------------|---------------------------------|----------------------------------|
| <input type="radio"/> 0% - 5% | <input type="radio"/> 20% - 40% | <input type="radio"/> 80% - 100% |
| <input type="radio"/> 5% - 10% | <input type="radio"/> 40% - 60% | |
| <input type="radio"/> 10% - 20% | <input type="radio"/> 60% - 80% | |

3. Attitude claims

I fully I agree to I do not I disagree to I fully

	agree	some extent	know	some extent	disagree
I buy jewellery with time and consideration	o	o	o	o	o
Passion towards jewellery often drives me to also buy them	o	o	o	o	o
I buy jewellery only when I feel good	o	o	o	o	o
I often purchase jewellery having romantic thoughts	o	o	o	o	o
I buy jewellery often when I am happy	o	o	o	o	o
Love is an important factor when I buy jewellery	o	o	o	o	o
I buy jewellery most likely when there is a pleasant atmosphere in the store	o	o	o	o	o
Jewellery causes often immediate emotional reactions in me	o	o	o	o	o

4. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
I often ask the sales person where the jewellery piece has been manufactured	o	o	o	o	o
When I buy jewellery to me the Brand is important	o	o	o	o	o
It is important that I am able to trust the sales person	o	o	o	o	o
The country of manufacture for the piece of jewellery that I am buying affect my purchasing decision	o	o	o	o	o
I take notice how the jewellery is designed	o	o	o	o	o
Price of the jewellery does not matter	o	o	o	o	o
I buy often jewellery at discounts	o	o	o	o	o
I buy jewellery often from abroad	o	o	o	o	o
I prefer national (Finland) jewellery	o	o	o	o	o
I know my consumer rights	o	o	o	o	o
I buy nearly all my jewellery from the same shop	o	o	o	o	o

I buy only the jewellery of a certain brand

PAGE II. Respondent's Purchasing Habits

5. Describe briefly (in 1 to 3 sentences) how do you understand ethics and the raw materials used in jewellery? *OPEN ENDED, 278 replies.*

6. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
My friends' opinions affect my jewellery purchase behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The jewellery I wear communicate how I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I buy similar jewellery than my friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With jewellery I can best communicate who I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jewellery has symbol value for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often reward myself by buying jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often buy jewellery by impulse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I ask nearly always the opinion of my friends before I buy jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take often support from my friends when I buy jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I buy jewellery mainly because of their aesthetic beauty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jewellery are mainly to me traditional and cultural matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I buy jewellery to activate certain emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Celebrities and important persons affect my jewellery purchases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Would you prefer not to buy jewellery coming from specific countries? (Leave blank if you do not have any preference)

- o Argentina
- o Australia
- o Brazil
- o Burma/Myanmar
- o South Africa
- o EU-countries
- o Philippines
- o Hong Kong
- o Indonesia
- o India
- o Japan
- o Cambodia
- o Canada
- o China
- o Laos
- o Malaysia
- o Mexico
- o Nepal
- o Pakistan
- o Singapore
- o Sri Lanka
- o Taiwan
- o Thailand
- o Turkey
- o New Zealand
- o Vietnam
- o United Arab Emirates
- o United States of America

8. I mainly purchase jewellery for...

- o my self
- o my companion
- o my wife/husband
- o my mother
- o my father

- o my friend
- o my children
- o my girlfriend
- o my boyfriend
- o my siblings
- o my grandchildren
- o I do not buy jewellery

9. Where do you commonly buy your jewellery?

- o Jewellery shop
- o Sokos, Stockman or a similar department house
- o Abroad
- o Big supermarkets
- o Catalogue and delivery by post
- o Market square or similar
- o Small specialised shops
- o Internet
- o I do not buy jewellery

10. What kind of jewellery you commonly buy?

- o White gold jewellery
- o Gold jewellery
- o Silver jewellery
- o Diamond jewellery
- o Cultured sea pearls
- o Cultured sweet water pearls
- o Jewellery of different gems
- o Hand made jewellery
- o I also make jewellery for my self
- o Inexpensive and beautiful jewellery
- o Not need to be necessary made of precious metals
- o Jewellery that fit my style
- o Jewellery that uses leather strings

- I do not buy jewellery

11. To what purpose you buy the jewellery?

- A Christmas present to another person
- A Christmas present for my self
- A birthday present for another person
- A birthday present for my self
- A name day present for another person
- A name day present for myself
- A confirmation (*a religious ceremony*) present
- High school graduation present
- A graduation present
- A wedding present for my self
- A wedding present for another couple
- A gift for a teacher
- A gift with no special reason
- I do not buy jewellery

12. What types of jewellery you usually buy?

- Earrings
- Necklaces
- Bracelets
- Ankle bracelet
- Pedants
- Rings
- Beautiful necklace

13. How much do you annually spend on average to jewellery (not including watches)?

- Less than 10 Euros
- 10 – 20 Euros
- 20 – 40 Euros
- 40 - 60 Euros
- 60 – 80 Euros

- o 80 – 120 Euros
- o 120 – 160 Euros
- o 160 – 240 Euros
- o 240 - 300 Euros
- o 300 - 600 Euros
- o 600 - 1000 Euros
- o 1000 – 5000 Euros
- o More than 5000 Euros

PAGE III. Jewellery and internet

14. Describe briefly (in 1 to 3 sentences) what do you know about dangerous or toxic chemicals used in jewellery? *OPEN ENDED, 268 replies.*

15. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
Jewellery should be durable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jewellery should represent current fashion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The jewellery I buy are easily available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jewellery should be manufactured ethically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I mainly buy expensive jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality is the most important aspect of jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have my jewellery custom made for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aesthetic aspects are the most important aspects of jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that hand made jewellery is ethical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have only one or two jewellery brands that I like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
I think that gold is an ethical material	o	o	o	o	o
The environmental manufacturing process of jewellery is important to me	o	o	o	o	o
I think that silver is an ethical material	o	o	o	o	o
It is important to me that the person producing the jewellery piece gets a sufficient pay for the job	o	o	o	o	o
I think that Cultured pearls as a material are ethical	o	o	o	o	o
I think conflict free diamonds are ethical	o	o	o	o	o
It is important to me that there has not been used any child labour in the jewellery manufacturing process	o	o	o	o	o
I know well the different grades (alloys) of gold	o	o	o	o	o
I am aware of the different manufacturing processes of jewellery	o	o	o	o	o
I know well the different grades (alloys) of silver	o	o	o	o	o
I know the Kimberley process	o	o	o	o	o

17. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
I mainly evaluate how ethical a piece of jewellery is based on my “gut feelings”	o	o	o	o	o
I can objective evaluate the ethical origins of a jewellery piece	o	o	o	o	o
I trust national (Finnish) jewellery brands	o	o	o	o	o
Buying jewellery is exciting	o	o	o	o	o
I like the stories that are related to jewellery	o	o	o	o	o
I can evaluate the price of jewellery	o	o	o	o	o

fairly objectively

Good product information gives a better image of the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression on the sales person affects highly how ethical I feel his or her jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important for me that I know the supply chain of jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The jewellery shop affects to a great extent how ethical I feel their jewellery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
I am ready and prepared to make extra efforts when I purchase jewellery, which I trust are ethical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often visit many jewellery shops in order to get what I want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am prepared to pay extra for ethically made jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am ready to participate actively to promote ethical jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know or know what is ethical consuming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that there are not enough ethical jewellery in the market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. What proportion of your jewellery you buy from Internet?

- I do not buy from Internet
- 0 – 1 %
- 1 – 5 %
- 5 – 10 %
- 10 – 20 %
- 20 – 30 %
- 30 – 50 %

- o 50 – 70 %
- o 70 – 100 %

20. What are the typical prices of the jewellery you buy from the Internet (not including watches)?

- o I do not buy from Internet
- o Less than 10 Euros
- o 10 – 20 Euros
- o 20 – 30 Euros
- o 30 – 50 Euros
- o 50 – 100 Euros
- o 100 – 200 Euros
- o 200 – 500 Euros
- o 500 – 1000 Euros
- o 1000 – 10 000 Euros
- o More than 10 000 Euros

21. How will your Jewellery Internet purchasing change in the near future?

- o It will grow extremely considerably
- o It will grow considerably
- o It will grow a little
- o It will stay as it is
- o It will decrease
- o I do not buy, and I believe that I will not start buying jewellery from Internet

PAGE IV. Brands

22. Describe briefly (in 1 to 3 sentences) how do you understand ethical labour and jewellery?
OPEN ENDED, 322 replies.

23. Mark the countries, which in our opinion can be considered as significant manufacturers of jewellery for exporting purposes.

- o Argentina
- o Australia
- o Brazil
- o Burma/Myanmar
- o South Africa
- o EU-countries
- o Philippines
- o Hong Kong
- o Indonesia
- o India
- o Japan
- o Cambodia
- o Canada
- o China
- o Laos
- o Malaysia
- o Mexico
- o Nepal
- o Pakistan
- o Singapore
- o Sri Lanka
- o Taiwan
- o Thailand
- o Turkey
- o New Zealand
- o Vietnam
- o United Arab Emirates
- o United States of America
- o I cannot name any

24. Describe how well you know the following countries and know their geographic position.

	I know extremely poorly	I know poorly	I cannot say	I know well	I know extremely well
Argentina	o	o	o	o	o

Australia	o	o	o	o	o
Brazil	o	o	o	o	o
Burma/Myanmar	o	o	o	o	o
South Africa	o	o	o	o	o
EU-countries	o	o	o	o	o
Philippines	o	o	o	o	o
Hong Kong	o	o	o	o	o
Indonesia	o	o	o	o	o
India	o	o	o	o	o
Japan	o	o	o	o	o
Cambodia	o	o	o	o	o
Canada	o	o	o	o	o
China	o	o	o	o	o
Laos	o	o	o	o	o
Malaysia	o	o	o	o	o
Mexico	o	o	o	o	o
Nepal	o	o	o	o	o
Pakistan	o	o	o	o	o
Singapore	o	o	o	o	o
Sri Lanka	o	o	o	o	o
Taiwan	o	o	o	o	o
Thailand	o	o	o	o	o
Turkey	o	o	o	o	o
New Zealand	o	o	o	o	o
Vietnam	o	o	o	o	o
United Arab Emirates	o	o	o	o	o
United States of America	o	o	o	o	o

25. Describe your trust towards the following jewellery brands.

	I trust extremely poorly	I trust poorly	I cannot say or do not know the brand	I trust well	I trust extremely well
Tissot	0	0	0	0	0
Timanttiset	0	0	0	0	0
Tillander	0	0	0	0	0
Tiffany & Co.	0	0	0	0	0
Tag Heuer	0	0	0	0	0
Stockmann	0	0	0	0	0
Sokos	0	0	0	0	0
Snö	0	0	0	0	0
Pirami	0	0	0	0	0
Nomination	0	0	0	0	0
Mikimoto	0	0	0	0	0
Lapponia Jewellery	0	0	0	0	0
Kultakeskus	0	0	0	0	0
Kultajousi	0	0	0	0	0
Kohinoor	0	0	0	0	0
Kalevala Koru	0	0	0	0	0
Focus	0	0	0	0	0
Fabergé	0	0	0	0	0
Esprit	0	0	0	0	0
D&G	0	0	0	0	0
Cucci	0	0	0	0	0
Citizen	0	0	0	0	0
Cartier	0	0	0	0	0
Breitling	0	0	0	0	0
Omega	0	0	0	0	0
Raymond Weil	0	0	0	0	0
Certina	0	0	0	0	0
Leijona	0	0	0	0	0

PAGE 5. General questions describing the respondent

26. Attitude claims

	I fully agree	I agree to some extent	I do not know	I disagree to some extent	I fully disagree
I prefer to buy jewellery of ethical origins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clear information on the company selling the jewellery increase my trust on the ethical level of their jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer to buy jewellery from shops that openly inform about their operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I want I can buy jewellery that is ethically made	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that there is not enough information on ethical jewellery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often need to guess if the jewellery piece is ethically made or not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ethical manufacturing of jewellery is important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Gender

<input type="radio"/>	Male
<input type="radio"/>	Femal

28. Age

- Less than 18
- 18 – 25
- 26 – 30
- 31 -35
- 36 – 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 – 60

29. Education

- o Compulsory schools
- o High School, basic professional (1-3 year) school
- o Lower high level
- o Bachelor level
- o Master level
- o Doctor level

30. Socio economical status, profession

- o Entrepreneurs
- o White collar
- o Blue collar
- o Basic workers
- o Students
- o On pension
- o Other

31. Socio economical status, pre-tax income

- o Less than 20 000 Euros
- o 20 000 – 40 000 Euros
- o 40 000 – 60 000 Euros
- o More than 60 000 Euros
- o I would like to politely not to answer

32. Feedback and comments, *OPEN ENDED, 69 replies.*

Appendix VI. SPSS Factor Analysis Results

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
<u>dimension 1</u>	8.752	22.441	22.441	8.301	21.285	21.285	5.262	13.492	13.492

2	3.524	9.035	31.476	3.092	7.929	29.215	3.253	8.340	21.831
3	3.023	7.751	39.228	2.577	6.608	35.823	2.661	6.823	28.654
4	2.095	5.372	44.599	1.747	4.479	40.302	1.893	4.854	33.509
5	1.747	4.479	49.078	1.378	3.534	43.836	1.613	4.137	37.645
6	1.623	4.162	53.240	1.235	3.166	47.002	1.508	3.867	41.512
7	1.539	3.945	57.186	1.102	2.826	49.828	1.494	3.831	45.344
8	1.366	3.503	60.689	.955	2.449	52.277	1.368	3.506	48.850
9	1.161	2.976	63.664	.714	1.831	54.108	1.318	3.380	52.230
10	1.044	2.678	66.342	.576	1.478	55.586	1.309	3.356	55.586
11	.909	2.330	68.673						
12	.817	2.096	70.768						
13	.742	1.903	72.672						
14	.707	1.814	74.486						
15	.645	1.654	76.139						
16	.607	1.558	77.697						
17	.596	1.527	79.224						
18	.564	1.446	80.670						
19	.540	1.385	82.055						
20	.517	1.324	83.379						
21	.494	1.266	84.645						
22	.473	1.214	85.859						
23	.464	1.191	87.050						
24	.443	1.136	88.186						
25	.407	1.044	89.230						
26	.402	1.030	90.260						
27	.396	1.016	91.276						
28	.378	.968	92.245						
29	.360	.922	93.167						
30	.345	.884	94.051						
31	.331	.849	94.901						
32	.314	.806	95.706						
33	.292	.749	96.455						
34	.284	.728	97.184						
35	.273	.701	97.884						
36	.252	.647	98.532						

37	.224	.576	99.107						
38	.202	.518	99.625						
39	.146	.375	100.000						

Extraction Method: Principal Axis Factoring.

Rotated Factor Matrix^a

	Factor									
	1	2	3	4	5	6	7	8	9	10
I am prepared to pay extra for ethically made jewellery	.721	.073	.004	.038	-.055	.081	.064	.013	.089	.082
I am ready and prepared to make extra efforts when I purchase jewellery, which I trust are ethical	.698	.128	.054	.070	.018	.049	.175	.036	.047	.025
I prefer to buy jewellery of ethical origins	.689	.110	.107	.134	.049	.110	-.052	-.001	.125	.165
Jewellery should be manufactured ethically	.686	.027	.114	.130	.046	.056	-.060	.174	.074	-.011
Ethical manufacturing of jewellery is important to me	.680	-.003	-.004	.038	.009	-.056	.056	.063	.253	-.023
I am ready to participate actively to promote ethical jewellery	.630	.206	.089	.009	-.001	-.005	.057	-.004	-.058	.015
The environmental manufacturing process of jewellery is important to me	.616	.094	.011	.106	.111	-.070	-.053	.052	.209	-.053
It is important for me that I know the supply chain of jewellery	.597	.328	-.002	.170	.032	.002	-.003	.312	.025	.068
The country of manufacture for the piece of jewellery that I am buying affect my purchasing decision	.548	.176	.080	.396	.048	.074	-.074	.194	-.065	.232
Clear information on the company selling the jewellery increase my trust on the ethical level of their jewellery	.501	-.004	.085	.080	.036	.072	-.074	.250	.317	.174
I prefer to buy jewellery from shops that openly inform about their operations	.466	.015	.100	.105	.077	.007	-.109	.185	.306	.233

I often ask the sales person where the jewellery piece has been manufactured	.443	.374	.048	.146	.032	.121	.026	.172	-.072	.225
I know well the different grades (alloys) of silver	.137	.833	.032	.111	.016	.067	.066	.034	.042	.082
I am aware of the different manufacturing processes of jewellery	.127	.820	.085	.104	-.022	.110	.093	.027	-.092	.161
I know well the different grades (alloys) of gold	.108	.714	-.050	.026	.068	.036	-.023	.069	.044	.219
I know the Kimberley process	.063	.615	.131	.186	.007	.033	.033	-.036	-.069	-.043
I can objective evaluate the ethical origins of a jewellery piece	.255	.533	.142	.116	.132	.029	.015	-.063	-.049	.067
I ask nearly always the opinion of my friends before I buy jewellery	.077	.127	.806	.018	.048	.092	-.067	-.036	.017	.058
I take often support from my friends when I buy jewellery	.079	.072	.789	.026	.037	.095	-.032	.045	.009	.039
My friends opinions affect my jewellery purchase behavior	.086	-.014	.624	-.005	-.026	.046	.069	.094	.018	-.019
I buy similar jewellery than my friends	.046	.030	.597	.041	.080	.049	.250	.034	-.052	-.072
Celebrities and important persons affect my jewellery purchases	.015	.082	.595	.120	.022	.085	.197	.061	-.020	.007
I buy only the jewellery of a certain brand	.081	.208	.108	.698	.045	.111	.060	.002	-.044	.063
I have only one or two jewellery brands that I like	.141	.098	.064	.624	.070	.051	-.011	-.060	.078	.045
When I buy jewellery to me the Brand is important	.274	.206	.015	.519	.073	.096	.007	.113	-.072	.241
I prefer national (Finland) jewellery	.401	.099	-.042	.491	.051	.100	-.045	.081	.048	.286
I think that gold is an ethical material	.040	.047	.054	.095	.891	.118	.043	.111	-.072	.140
I think that silver is an ethical material	.090	.094	.076	.086	.823	.086	.046	.049	.033	.017
Love is an important factor when I buy jewellery	-.008	.073	.081	.156	.131	.791	-.090	.073	.047	.025
I often purchase jewellery having romantic thoughts	.090	.212	.205	.136	.092	.664	-.088	-.005	.074	.040
I buy jewellery often when I am happy	.111	-.006	.200	-.006	-.002	.488	.305	.122	.117	.135

I often reward myself by buying jewellery	.037	.075	.153	.006	.041	-.019	.795	.015	.055	-.041
Passion towards jewellery often drives me to also buy them	-.007	.058	.139	.006	.032	-.029	.719	-.010	.069	.053
The jewellery shop affects to a great extent how ethical I feel their jewellery.	.219	.049	.056	.031	.038	.030	.050	.709	.051	.017
My impression on the sales person affects highly how ethical I feel his or her jewellery	.173	-.021	.122	-.016	.099	.090	-.019	.685	.008	.030
I often need to guess if the jewellery piece is ethically made or not	.316	-.034	.001	-.016	-.027	.130	.116	.022	.709	-.053
I think that there is not enough information on ethical jewellery	.277	-.093	-.055	-.005	-.029	.064	.082	.010	.626	.054
I mainly buy expensive jewellery	.071	.282	-.034	.216	.041	.093	.055	-.030	.023	.661
Quality is the most important aspect of jewellery	.245	.229	.023	.173	.140	.046	-.006	.085	.028	.587

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Communalities

	Initial	Extraction
Passion towards jewellery often drives me to also buy them	.452	.549
I often purchase jewellery having romantic thoughts	.511	.578
I buy jewellery often when I am happy	.381	.430
Love is an important factor when I buy jewellery	.483	.695
I often ask the sales person where the jewellery piece has been manufactured	.476	.461
When I buy jewellery to me the Brand is important	.461	.478
The country of manufacture for the piece of jewellery that I am buying affect my purchasing decision	.592	.603
I prefer national (Finland) jewellery	.513	.519
I buy only the jewellery of a certain brand	.459	.573
My friends opinions affect my jewellery purchase behavior	.388	.414
I buy similar jewellery than my friends	.409	.441
I often reward myself by buying jewellery	.492	.670
I ask nearly always the opinion of my friends before I buy jewellery	.638	.692
I take often support from my friends when I buy jewellery	.633	.650
Celebrities and important persons affect my jewellery purchases	.403	.426
Jewellery should be manufactured ethically	.552	.546
I mainly buy expensive jewellery	.466	.584
Quality is the most important aspect of jewellery	.468	.517
I have only one or two jewellery brands that I like	.365	.443
I think that gold is an ethical material	.684	.862

The environmental manufacturing process of jewellery is important to me	.462	.469
I think that silver is an ethical material	.665	.720
I know well the different grades (alloys) of gold	.580	.585
I am aware of the different manufacturing processes of jewellery	.694	.763
I know well the different grades (alloys) of silver	.708	.745
I know the Kimberley process	.459	.444
I can objective evaluate the ethical origins of a jewellery piece	.427	.412
My impression on the sales person affects highly how ethical I fell his or her jewellery	.405	.534
It is important for me that I know the supply chain of jewellery	.566	.596
The jewellery shop affects to a great extent how ethical I feel their jewellery.	.430	.565
I am ready and prepared to make extra efforts when I purchase jewellery, which I trust are ethical	.517	.548
I am prepared to pay extra for ethically made jewellery	.550	.555
I am ready to participate actively to promote ethical jewellery	.450	.454
I prefer to buy jewellery of ethical origins	.601	.577
Clear information on the company selling the jewellery increase my trust on the ethical level of their jewellery	.517	.470
I prefer to buy jewellery from shops that openly inform about their operations	.489	.439
I think that there is not enough information on ethical jewellery	.415	.495
I often need to guess if the jewellery piece is ethically made or not	.499	.638
Ethical manufacturing of jewellery is important to me	.537	.539

Extraction Method: Principal Axis Factoring.

Factor Transformation Matrix

Factor	1	2	3	4	5	6	7	8	9	10
1	.707	.414	.220	.320	.145	.187	.059	.200	.138	.243
2	-.544	.513	.436	.153	.171	.208	.148	-.111	-.334	.095
3	.062	-.462	.741	-.196	.045	.142	.269	.127	.191	-.220
4	-.161	-.398	-.117	.271	.604	.385	-.378	.207	-.018	.170
dimension 0	-.063	.042	-.338	-.144	.507	-.077	.744	.035	.200	.040
5	-.155	-.061	-.144	.223	-.387	.598	.174	-.346	.477	.134
6	-.073	.355	-.099	-.662	.004	.394	-.229	.391	.212	-.123
7	-.181	-.135	-.099	.205	-.416	.023	.279	.740	-.200	.242
8	-.178	-.018	.204	-.219	.015	-.353	-.152	-.032	.375	.767
9	-.277	.207	.057	.405	.056	-.331	-.150	.258	.582	-.416
10										

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

Appendix VII. SPSS Cluster Analysis Results

Final Cluster Centers

Cluster

	1	2
REGR factor score 1 for analysis 1	-.20915	.19049
REGR factor score 2 for analysis 1	-.25316	.23058
REGR factor score 3 for analysis 1	-.28604	.26052
REGR factor score 4 for analysis 1	-.33364	.30387
REGR factor score 5 for analysis 1	-.50110	.45640
REGR factor score 6 for analysis 1	-.08686	.07911
REGR factor score 7 for analysis 1	-.12488	.11374
REGR factor score 8 for analysis 1	-.11575	.10542
REGR factor score 9 for analysis 1	.14891	-.13563
REGR factor score 10 for analysis 1	-.14785	.13466

Final Cluster Centers

	Cluster		
	1	2	3
REGR factor score 1 for analysis 1	-.22968	.75616	-.50396
REGR factor score 2 for analysis 1	-.07309	.07934	-.01216
REGR factor score 3 for analysis 1	-1.03679	.33709	.55190
REGR factor score 4 for analysis 1	.11065	.36229	-.42487
REGR factor score 5 for analysis 1	-.12676	.17785	-.05808
REGR factor score 6 for analysis 1	-.01027	-.04310	.04815
REGR factor score 7 for analysis 1	-.11544	-.03905	.13182
REGR factor score 8 for analysis 1	-.11135	.35034	-.22940
REGR factor score 9 for analysis 1	.05034	-.01714	-.02609
REGR factor score 10 for analysis 1	.10163	.31222	-.37137

Final Cluster Centers

	Cluster			
	1	2	3	4
REGR factor score 1 for analysis 1	-.19740	-.48104	-.42520	.87728
REGR factor score 2 for analysis 1	-.27652	-.26447	.27027	.12495
REGR factor score 3 for analysis 1	-1.45663	.37444	.33448	.14474
REGR factor score 4 for analysis 1	.09441	-.40155	-.00267	.28828
REGR factor score 5 for analysis 1	-.16887	-.66258	.80667	-.07138
REGR factor score 6 for analysis 1	-.22737	.02386	.20226	-.08077
REGR factor score 7 for analysis 1	.09826	.07946	.06869	-.17742
REGR factor score 8 for analysis 1	-.03416	-.33153	.18330	.13242
REGR factor score 9 for analysis 1	-.14990	.28905	-.54250	.31438
REGR factor score 10 for analysis 1	-.14434	-.35421	.06545	.31198

Final Cluster Centers

	Cluster				
	1	2	3	4	5
REGR factor score 1 for analysis 1	-.37451	-.31756	-.50158	.40420	.79673
REGR factor score 2 for analysis 1	-.56768	-.62322	.63095	.20189	.01951
REGR factor score 3 for analysis 1	-1.33694	.50190	.18034	.48954	-.05942
REGR factor score 4 for analysis 1	-.14843	.21275	-.08393	-.37649	.26095
REGR factor score 5 for analysis 1	-.16266	.85421	-.36593	-.50658	.16087
REGR factor score 6 for analysis 1	-.40521	.32277	.36904	-.37913	-.16959
REGR factor score 7 for analysis 1	.24477	.29509	.26624	-.06434	-.64875
REGR factor score 8 for analysis 1	.02365	-.08286	-.38027	.81115	-.04050
REGR factor score 9 for analysis 1	-.02710	-.25755	.09992	-.50311	.43107
REGR factor score 10 for analysis 1	-.09383	.10438	-.02872	-.39509	.26191

Final Cluster Centers

	Cluster					
	1	2	3	4	5	6
REGR factor score 1 for analysis 1	-.49659	-.42914	-.31096	-.36303	1.01677	.42639
REGR factor score 2 for analysis 1	.59799	-.73257	-1.23313	.44028	.05403	.53210
REGR factor score 3 for analysis 1	.02731	-.60702	.53501	.15374	.24348	-.04969
REGR factor score 4 for analysis 1	.18899	-.50683	.55095	.05191	.21000	-.33105
REGR factor score 5 for analysis 1	.83348	-.14272	.17187	-1.10163	.16685	-.21322
REGR factor score 6 for analysis 1	.35574	-.19372	.19100	-.21330	.04935	-.24545
REGR factor score 7 for analysis 1	.27129	.07055	-.47514	.38857	-.01999	-.72052
REGR factor score 8 for analysis 1	-.14494	-.10734	.36520	-.46936	.00954	.77635
REGR factor score 9 for analysis 1	-.22827	.48716	-.72794	-.33699	.60992	-.62920
REGR factor score 10 for analysis 1	.22346	-.20133	-.07412	-.06034	.09075	-.07175

Final Cluster Centers

	Cluster						
	1	2	3	4	5	6	7

REGR factor score 1 for analysis 1	.81176	-.65138	-.47759	-.12508	.76873	.66088	-.46294
REGR factor score 2 for analysis 1	.15879	.47535	.58332	-.21699	.23370	-.42929	-1.14512
REGR factor score 3 for analysis 1	.29558	.18782	.30930	-1.55214	.20421	.21764	.52506
REGR factor score 4 for analysis 1	.45183	.01491	-.58190	-.01793	.34922	-.60315	.47874
REGR factor score 5 for analysis 1	.39366	-.65790	.93934	-.04056	-.61787	.15088	.13713
REGR factor score 6 for analysis 1	-.68695	.05603	.08509	-.05599	-.32444	.39384	.51107
REGR factor score 7 for analysis 1	.27329	.10426	.11255	.03517	-.58451	-.07235	-.07756
REGR factor score 8 for analysis 1	-.55163	-.46889	.56568	-.07188	.75628	.22220	.04109
REGR factor score 9 for analysis 1	-.24183	.12766	-.57421	.07026	-.14745	.91811	-.29399
REGR factor score 10 for analysis 1	-.26503	-.03886	-.01661	-.01111	.59752	-.19748	.09911