The Digital Natives – Generation Z

How to create trust within the new generation of e-shoppers

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The online market is now more vivid than ever; there is a brisk inflow of new customers, companies, goods and money. Never before have so many companies expressed interest in going online. The sharpening competition increases the importance of the new online customers, the young customers of Generation Z. People born between the early 1990s and 2010 are a unique group known as the Digital Natives – the first generation who has grown up in the middle of advanced informational technology. A generation born into a global world, constantly virtually connected with a lifelong use of communications and media technology. With a new generation standing at the verge of the online shopping world at the same time as the future of the retail industry is considered to lie online, the development of trust among young people is essential for future success. Therefore we dedicate our thesis to analyzing the antecedents of consumer trust in Internet shopping since this may be the key to the online retail treasures. We have put forward two hypotheses to examine what drives trust in e-commerce as well as in individual e merchants within generation Z. Also, three hypotheses examines whether the generational differences makes the chosen theoretical model inappropriate to apply on the target population. To achieve a deeper understanding we have combined a quantitative study with focus groups and indepth interviews.

Keywords: E-commerce, consumer trust, individual trust propensity, mediation

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"Digital natives will move markets and transform industries, education and global politics. The changes they bring about as they move into the workforce could have an immensely positive effect on the world we live in. By and large, the digital revolution has already made this world a better place. And digital natives have every chance of propelling society further forward in myriad ways – if we let them."

John Palfrey and Urs Gasser, 2008

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1. INTRODUCTION

1.1 Problem area

Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can plausibly be argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence.

Arrow, 1972, p. 357

Trust is, due to its effect of reducing transaction costs, identified as one important factor for the encouragement of economic growth (Putnam 1993, p. 167). The capacity of trust to reduce transaction costs has historically been very important within traditional commerce (The Swedish Trade Federation, 2003). According to Keen (2000) trust is the key to all commerce and especially for the development of e-commerce. When it comes to the rapid development of e-commerce, consumer trust has actually proven to be more important than technical development (Keen, 2000). The concept of trust is commonly discussed in situations where two parties establish a relationship based on promises and expectations. This basic concept of trust is already complex and it becomes even more composed when it is applied on the interaction between man and computer (Gauffin, 2002).

The online market is more vivid than ever; there is a brisk inflow of new customers, companies, goods and money. According to a report from the Swedish Trade Federation (2010) the Swedish online market turnover has increased by more than 167 percent only in the last five years and the optimism for the online future among companies is now the highest since 2006. The market attractiveness and development are positive but also generates predictions of rapidly increasing competition. In order to deal with this increased competition, the *new* online customers will be an important group. The young customers of *Generation Z*, people born between the early 1990s and 2010 (Grail Research 2010), are a unique group, rapidly gaining economic power. The so-called *Generation Z* or simply the *Digital Natives* is the first generation who has grown up in the middle of advanced informational technology. A generation born into a global world, constantly virtually connected with a perfect understanding of when and how to use communications and media technology.

With a new generation standing at the verge of the online shopping world at the same time as the future of the retail industry is considered to lie online, the development of trust among young people is essential for future success. Therefore we dedicate our thesis to analyzing the antecedents of consumer trust in Internet shopping since this may be the key to the online retail treasures.

1.2 Problem Background

In order to find potential support for our hypothesis we turned to one of the largest players on the Swedish online market, Tradera. Owned by American eBay Inc with close to two million users – Tradera is a mighty giant with absolute front edge competence within the industry. There we got in contact with the online marketing team who expressed great interest in our thesis. Traderas marketing team works continuously to attract new members as well as with understanding and developing the site for existing members. Tradera applies an age limit, restricting customers below the age of 18, so for them the *Generation Z* is literally standing in line to become e-commercially mature.

We presented, discussed and identified theories with representatives from Tradera limiting the subject to topics that will be of utmost importance for new online customers. With origin in our initial view and theoretical research, what interested Tradera is a model that can be of potential interest for future customer acquisition. This model, the *Trust model for Consumer Internet Shopping* developed by Matthew K. O Lee and Efraim Turban (2001) will therefore constitute the theoretical framework for the thesis. The primary purpose of this thesis will be to examine *what drives young adults' trust in e-commerce with the respect to industry as well as to individual e-merchants*. This thesis will in no way concern the work or the customers of Tradera or eBay Inc; we have solely consulted them to see if our theory is a relevant subject within the e-commerce industry.

1.3 The Generation Z

The development of trust within a society can resemble the concept of game theory where individuals' preferences are not decided based on their own rational behavior. Trust can rather be considered as a product of the social context (Rothstein, 2003). This implies that choices of strategy are based on perceptions concerning to what extent others are willing to cooperate. Trust's characteristic as a product of aggregated perceptions and expectations lengthwise and crosswise within a group of people, makes it relevant to study trust on an aggregated rather than individual level. Our own level of trust is to a great extent based on relations with the people surrounding us and the conditions under which we have grown and developed.

With trust being an important factor for success within e-commerce it is essential to understand how and why trust is created. With support from the theories presented above we

find it interesting to study the drivers and level of trust within the *Generation Z*. Considering trust as a phenomenon created within the contemporary context, based on the people surrounding us, there might be important differences from generation to generation.

We have chosen to focus our study on the *Generation Z*, as this generation is said to be unique in many ways but also since these young people are just coming of age for the world of ecommerce. Being the first generation growing up with constant access to networked digital technology they are perfectly capable and comfortable to apply these technologies in their everyday lives. Today, digital technologies are huge influencers and mediate major aspects in young people's lives. Social interactions, friendships and civic activities are all performed through digital technologies. Throughout the digital era people have transformed their ways of living and how they relate to one another and to the world (Palfrey and Gasser, 2008, p.2-3 & Grail Research, 2010). The development and social coherence of *Generation Z* is to a great extent driven by significant exposure to digital media and longer time spent on social networking online compared to other age groups.

1.4 Purpose

This thesis will focus on the analysis of two main questions with a number of sub hypotheses in order to achieve both empirical and theoretical understanding. The primary purpose is to identify and understand the main drivers of trust in e-commerce within *Generation Z*. This analysis will be conducted on two levels with the aim to understand the phenomenon of trust on an industrial level as well as on company level. There is reason to presume differences in the development of trust toward e-merchants respective Internet as a shopping medium since it concerns different types of trust. Trust between a consumer and an Internet merchant is of *interpersonal* type whereas trust in Internet shopping as a phenomenon is classified as *dispositional* (Model 1).

As a secondary purpose we hope that this thesis will be able to develop further the understanding of the importance of *Individual Trust Propensity (ITP)*. In the *Trust model for Consumer Internet shopping* ITP is included as a moderating variable. Since the target population for this thesis differs from earlier generations we find it relevant to question the *moderator classification*. What we aim to study is if experiences of e-commerce take part in the development of the respondents' ITP. This would imply that the ITP variable rather mediates than moderates the effect of the experience from purchasing online on the level of *Consumer Trust in Internet Shopping (CTIS)*. To test the hypothesis that ITP is a mediator,

not a moderator, we will apply a method presented in a study from 2005 by Muller, Judd and Yzerbyt.

1.5 Delimitations

The width of the hypotheses and analysis has been adjusted to meet the scale of a bachelor thesis. A majority of the Internet merchants conforms to a minimum age level of 18; thereby the most recent as well as the awaiting generation of e-shoppers today are within the ages of 16-19. Due to the interest of applying the results of this thesis to further develop CTIS, the research has been conducted on this future generation of e-shoppers, the *Generation Z*. The design of the research consists of a survey and in-depth interviews. The participants of the survey are all from Sweden, in the ages between 16 and 19 and go to the following upper secondary schools: Hersby gymnasium, Lidingö, Polhemskolan and Katedralskolan, Lund.

The thesis aim to study Consumer-to-Consumer e-commerce, however the e-merchant arranging the marketplace where the transactions take place are considered to have impact on the development of trust and therefore characteristics of the e-merchants will be included in the analyses. Considering the many various theories and research approaches concerning trust that exist we have had to delimit our thesis in terms of variables measuring the trust experience. The theoretical framework developed by Lee and Turban (2001) comprises four main variables, each influencing CTIS. These variables are (I) trustworthiness of the Internet merchant, (II) trustworthiness of the Internet as a shopping medium, (III) contextual factors and (IV) other factors such as company size and demographics (Lee and Turban, 2001). These variables will be more closely described in the theory section.

2. THEORETICAL BACKGROUND

This section of theoretical background will primarily focus on the presentation of Lee and Turban's Trust Model (2001) and its anticipatory theories and assumptions. In order to tailor the framework to the Swedish e-commerce market and properly apply it on a new, differing sample we have further examined several areas of trust theory. Concluding the section we will assemble our theoretical foundations to form the research questions that will navigate and coordinate the empirical study.

2.1 Is there *one* definition of the concept of trust?

Trust is a well-recognized notation commonly used within several academic sectors. However, the word is somewhat a phantom – it is frequently applied, considered general and somewhat self-evident, but still seldom more closely defined (McKnight and Chervany, 1996). Thereby the debate on trust is rather scattered and it has even been described as a conceptual "hotchpotch" (Lewis and Weigert, 1985) or a conceptual decay (Barber, 1983). The following theoretical review will identify the definitions we have chosen to be the basis of our thesis in order to conduct a consistent analysis of CTIS.

Previous research has examined trust in varying contexts and can be divided into three main theoretical perspectives (Mayer et al. 1995).

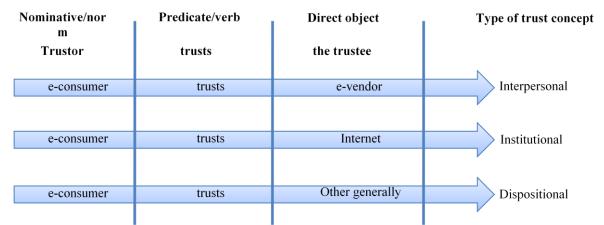
- 1. Personality theory; trust is deeply embedded in ones personality developed during the infant psychological development. Trust is here seen as a feeling or belief.
- 2. Social Psychology; trust defined as expectations and willingness to take risks while participation in a transaction. Contextual factors affect individuals personal trust propensity.
- 3. Sociology and economics; trust is what creates interaction within and between institutions as well as the trust between individuals and institutions.

Within the framework of this thesis the Social-Psychological perspective will be the primary approach. The individual propensity to trust is however still important since it affects to what extent consumers are willing to commit themselves to the risk of trusting another part (Rousseau et al., 1998). To trust another party is described by Gambetta (2000) as when you consider the probability that your opponent will act in a favorable way. The probability of favorable actions has to be high enough in order to enter some sort of cooperation.

The ultimate level of trust is what arises in relationships of love due to the priceless assets you put at stake - self-respect, prestige and appearance in the eyes of the one you love. Commercial relationships are considered to require a more shallow level of trust since what you risk is primarily material or monetary (Cheskin, 1999). The similarity between commercial and interpersonal relationships is the development of mutual trust over time and how this has a positive impact on reduction of transaction costs. Compared to personal relationships, trust in commercial relationships is more of a protection mechanism since these relationships may be more characterized by insecurity and vulnerability (Jarvenpaa, Tractinsky and Vitale, 2000).

2.2 Increasing importance of trust in commercial relationships due to growing technical contingency?

In any relationship, commercial or interpersonal, where there is any level of risk or dependency, trust is essential (Mayer et al., 1995 and Mishra, 1996). The importance of trust does become increasingly important when perceived uncertainty and risk is high. Within ecommerce the consumer cannot physically see either the goods or the seller. Acting in an electronic system you cannot fully control further increases the level of distrust, adding the dimension trust in the computer system. Several researchers have established the importance of trust within e-commerce. This is since the increased complexity of the transactions enhances the level of insecurity, which adds additional dimensions to the purchase decision making (Mishra, 1996). What further creates this increased need for trust within e-commerce is to a large extent privacy concerns and difficulties in retaining control of personal information (Cheskin, 2000). A model developed by McKnight and Chervany (2001/2002) shows the different levels of trust that takes place within e-commerce. Within this model trust is defined as willingness or intentions depend on another party.

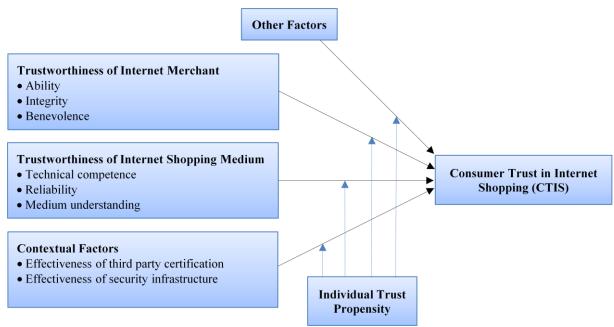


Model 1: McKnight, D.H. & Chervany, N.L. Grammar of the trust model.

Henceforth, the applied definition of trust through our thesis will be: the willingness or intentions to believe and depend on another party as a decision based on attributes such as predictability, ability, benevolence, fairness, goodness and honesty (ibid).

2.3 A Trust Model for Consumer Internet Shopping

The theoretical model comprises four major determinants of consumer trust in e-commerce; the determinants represent all types of trust discussed above – interpersonal, institutional and dispositional.



Model 2. Trust Model for Consumer Internet Shopping developed by Lee and Turban.

Four major antecedents of trust, which Lee and Turban (2001) have identified from previous research, give the independent variables of the model. These major variables are then divided into sub variables to get a more thoroughly understanding of the effects on CTIS. The effects of the variables included in the model are thought to be moderated by the respondents ITP.

The dependent variable that measures CTIS is defined by Lee and Turban as "willingness of a consumer to be vulnerable to the actions of an Internet merchant in an Internet shopping transaction, based on the expectation that the Internet merchant will behave in certain agreeable ways, irrespective of the ability of the consumer to monitor or control the Internet merchant" (Lee and Turban, 2001, p 79)

2.4 Trustworthiness of Internet Merchant

Trustworthiness in another party represents the mediation of attributes such as ability, integrity and benevolence (Mayer et al., 1995). Ability is the company's skills and capability to act in the domain of the Internet shopping industry, benevolence describes to what extent the customer believes that the company will act sincerely in a way that benefits both parties. Integrity is the customers' expectations of honesty from the company's side. Thus, these three attributes express and represent dimensions of the reputation concept. According to the definition by Doney and Cannon (1997), reputation is to what extent the customers within an industry believe the firm to be reliable, honest and actually concerning.

2.5 Trustworthiness of Internet Shopping Medium

A customer's trust in an automated system mainly depends on the perceived technical competence and ability. The trust in the transaction medium is essential for the overall trust in e-commerce since it is identified as the key for human choice of using computerized systems (Muir, 1997). Within e-commerce the Internet device carries many tasks of the traditional sales person. The human trust in automated systems depends on three main factors perceived; technical competence, perceived performance level and the customers understanding of the systems underlying processes (Lee and Moray, 1992).

2.6 Contextual Factors

The phenomenon of trust is created within the situation, affected by the surroundings and the involved parties approaches and preconceived attitudes (Lewicki and Bunker, 1995). In ecommerce, risk is an important factor for deciding the levels of trust, since the outcome of an Internet transaction is associated with high levels of uncertainty. Both the lack of control regarding the Internet merchant's behavior and the possible harm if the outcome turns out to be wrong, increase the levels of perceived uncertainty. In order to reduce the perceived insecurity several researchers has accentuated the effectiveness of third party certification systems.

2.7 Other Factors

With control factors in the model Lee and Turban (2001) refer to variables which do not fall under the main dimensions above, but yet do have significance for the CTIS. These are variables such as size and reputation of the Internet merchant (Jarvenpaa, Tractinsky & Vitale, 2000) or demographic variables regarding the customers. These variables are treated as control variables due to their somewhat scattered theoretical distribution – but they may still have important bearing in the model analysis.

2.8 Individual Trust Propensity

How and to what extent the respondents in the research population are affected by the variables in the trust model depends on their level of ITP, a personality trait that moderates the individuals' experience of the trustworthiness attributes (Mayer, Davis & Schoorman, 1995). The trust propensity is according to Hofstede (1980) a result of the individuals' personality type in combination with cultural background and previous developmental experience. Based on Hofstede's definition (1980) with developmental experience and cultural background as building blocks within the development of one's propensity to trust, the moderating characteristics can be questioned. Since the individuals within *Generation Z*

have grown up with the presence of Internet and e-commerce, these factors have with high possibility taken a part in shaping the respondents personalities and levels of trust propensity. This gives the trust propensity variable a different implication in the model as a part in a two-step causal relationship rather than having a more exogenous moderating effect. The technical effect of the trust propensity in the model is originally moderating with the effect that it enhances the effect of the signals sent out by the trustworthiness attributes.

A person's ITP, also referred to as *Disposition to trust*, does not tell to what extent the individual find others to be trustworthy, just the fact that they for some unknown reason choose to trust them (Erikson, 1968). This disposition of trust develops during life as a reaction and response to the experiences and challenges we meet through life, independently and together with others (Rotter, 1971). To further understand people's *disposition to trust* it can be divided into two main sub constructs; *faith in humanity* and *trusting stance*. Faith in humanity includes a subconsciously belief in the good of humanity and that people are benevolent, honest and trustworthy. The trusting stance is not about whether you expect goodness of people or not. Despite what you think, you consider it to be to all parties gain if cooperation takes place as if we were all well meaning with honest intentions – in other words a strategy of trust based on subjective calculations of the odds of success (Riker, W.H. 1971).

2.9 What are the factors affecting the Trustworthiness of Internet Merchants?

2.9.1 Brand design, knowledge, reputation and size

Customer's perceived trustworthiness of an online store depends to a large extent on the perceived size of the store. A large organizational size sends the signals that other buyers consider this store to be trustworthy and a good party to conduct successful business with (Doney and Cannon, 1997). Large size also implies security since larger sellers more thoroughly can control their suppliers and cover up for product failures (Chow and Holden, 1997). All together this creates a perception of service or product consistency and trustworthiness.

A good reputation signals that the company is honest and less likely to jeopardize the reputation by acting dubiously (Chiles and McMackin, 1996). The perception of reputation and size of companies online are closely connected and correlated. Prior experiences has shown to significantly increase the positive attitudes and perceptions of another party and since larger stores are more often visited – size increases the probability of prior visits and thereby also the chance of positive reputation associations (Heider, 1958). Also when taking

risks in an uncontrollable context such as the Internet, size has an assuring and verifying effect since it tells you that many customers before you have chosen to take the risk. A report initiated by Post & Telestyrelsen, performed by TNS Gallup (2009), recognizes that regarding Internet security, 38 percent of the Swedes state that they use their personal network, friends and family, as primary source of information. For the younger respondents (16-30 years) this figure was as high as 52 percent. The results from the study should be applicable on e-commerce since the insecurity and risk perception connected to e-commerce, to a great extent, is related to Internet security (Mishra, 1996).

2.9.2 Payment system

Today many Internet merchants use external payment systems to facilitate the payment procedure and increase security during the transaction. In order to allow payment by credit card or Internet bank the Internet merchant must have a cooperation agreement with a Payment Service Provider, PSP (e-mind). A PSP is registered and certified by the credit card companies in order to provide secure payments where card information is handled according to the regulations of *Payment Card Industry Data Security Standard* (ibid).

When a company constructs a webpage for e-commerce they need to implement a *SSL-certificate* for authentification toward customers and encryption of communication. After the essential security guarantees the company need to offer a way to simply and safely pay for purchased products online. There are several PSP providers on the Swedish market that offer different payment methods such as by credit card, invoice or online versions of cash on delivery. Cheskin (2000) shows in his e-commerce trust study that the presence of credit card symbols such as Visa or MasterCard has proven to increase customers' trust in the company.

According to Egger (2003) trust is often connected with the security level of electronic transactions. There is of course risk involved when handling monetary transactions online but what tends to be forgotten is that the traditional handling of credit card is subject to almost the same level of risk. This supports the theory presented by Castelfranchi and Pedone (2001): what actually matters concerning trust is the customers' perceived rather than the actual level of security. This indicates that increased knowledge and information among customers could actually increase the experience of trust.

2.9.3 Warrants/Guarantees

According to Lundblad (2001) certifications have a proven positive impact on customers' trust in a web site. In Sweden, the largest certificatory called *Trygg e-handel* covers 346 online retailers. The role of Trygg e-handel is to provide information on the certificated companies as well as supporting customers who are having problems related to any of the certificated companies. Some of the conditions which need to be fulfilled concern handling and storage of personal information as well as safe handling of credit card information. It is also important to be clear and honest regarding rights to return unwanted or damaged goods. (tryggehandel.se)

2.9.4 Handling of personal information

Fear around money and transactions will probably be surpassed by fear around personal information, identity, and attention. If I lose \$20, I'll be pissed but I won't spend weeks trying to resolve it. The time lost isn't worth it and the money can be recovered. Personal information, once released is hard to reclaim and protect. As every aspect of your personal life becomes available online, you'll care much more about it and look for people and services you can trust to protect, hold, and maintain information. (Sean White, CTO of WhoWhere.com, 2000)

Several theorists such as Koufaris and Hampton-Sosa (2002) have accentuated protection of user integrity as the most essential factor for users trust in a web page. The fear that personal information will end up in the wrong hands has been identified as a significant reason for customers to avoid revealing personal information and even avoiding e-commerce at all. According to Palfrey and Gasser (2008) many young people consider interacting and conversing online perfectly private and secure. They reveal personal information online without further considering who might get control of the information. The low perception of the existing risks concerning personal information sharing and trusting online can be troublesome for young people since information the information once shared online can never be completely removed and therefore easily can be traced and reveal undesired marks in ones past.

2.9.5 Delivery of goods

When engaging in e-commerce there is few physical meeting points between buyer and seller. Delivery of goods is one of them and it is of huge importance that this is successful (PTS 2003). Studying the websites of some of the big e-merchants in Sweden such as Tradera, Adlibris and Ellos, they all emphasize the importance of accurate and safe delivery through

their websites. Posten, DHL, and Schenker, three big companies providing express mail and freight services in Sweden are often used by e-merchants in order to reach customers quick and safe. When studying the mail and freight companies' websites we noticed that they all provide web based tracking services in order to assure customer safety.

2.10 Research questions and hypotheses

With further understanding of the area developed through the theoretical review we are able to more accurately specify the initial research questions and formulate our hypotheses. The primary purpose of identifying drivers of CTIS within the coming generation of e shoppers is studied in the initial research questions. Due to the many and often contradicting theories and definitions of trust we decided early in the process to exclude theories and models of trust other than the one constructing the theoretical framework. Below is also the sub hypotheses that will structure the analyses needed to examine the research questions.

How do the independent variables in the Trust model contribute to explain the variation in Customers' Trust in Internet Shopping?

H1: The independent variables in the Trust model contribute to explain the variation in Customers' Trust in Internet Shopping.

H2: The trust in individual e-merchants is not driven by the same antecedents as overall CTIS is.

While more thoroughly studying the *Generation Z* we found a possible divergence between this generation and the previous, which makes the model inappropriate, lies in the development of the individual trust propensity. Earlier generations have seen the birth and development of Internet and the online shopping world, accepted or rejected it based on their already existing level of trust propensity. The effect of their perceptions, expectations and interactions with e-merchants on their overall CTIS is therefore moderated by their predefined trust propensity. *Generation Z* has grown up with e-commerce and other advanced technology constantly present and thereby these factors have reasonably taken part in the development of their trust propensity. Thus, for these individuals the variable Trust Propensity in the model should rather function as a mediator due to the causal effect. This assumption will be tested within the thesis secondary purpose, understanding the role of ITP. The second research question includes three hypotheses regarding mediation, which are supported by tests of moderation.

How does the Individual trust propensity affect the relation between customers' perception of the independent variables in the model and their development of overall CTIS?

H3: Individual trust propensity has a *mediating* effect in the relation between customers' perception of an e-merchant and their development of CTIS.

H4: Individual trust propensity has a *mediating* effect in the relation between customers' perception of Internet as a shopping medium and their development of CTIS.

H5: Individual trust propensity has a *mediating* effect in the relation between customers' perception of the contextual factors and their development of CTIS.

3. METHOD

The method section aims to further explain the underlying method of the thesis. We will go through the design of the research and implications of the theoretical models. A reasoning concerning reliability and validity of the thesis will be carried through. This section will also discuss the methodology for data collection and preparation.

3.1 Why Trust?

E-commerce is rapidly becoming an essential part of the total Swedish commerce. Not only does it comprise a total worth of SEK 24 billion, it also has an enormous influence over the entire offline retail turnover. The *e-commerce report 2010*, conducted by the Swedish Trade Federation (2010) shows that nine out of ten customers gather information online before deciding on any offline purchases. With trust being a cornerstone in the foundation for commerce due to its capacity of reducing transaction costs (Putnam 1993, p. 167), it is inevitably an important factor of success in the fast paced online market. Talking to powerful players in the online market we have understood the great importance as well as the enormous difficulty of understanding and creating customer trust.

3.2 Methodological approach

This thesis takes on a deductive approach since the research questions are based on our findings from the review of existing theory. We conduct a quantitative study based on the results from our survey, but since we aim to more thoroughly understand the underlying drivers of the trust development process the research design for the thesis is causal. When analyzing human perceptions and beliefs, statistical correctitude may sometimes be insufficient due to the subjective nature of the problem. To achieve a deeper understanding of these psychological drivers of trust we have therefore added a dimension of explorative research. The qualitative approach consists of in depth interviews with specialists within Internet and e-commerce but also consultation to fully understand humans' psychological behavior and the statistical methods required. We will also follow up the quantitative results

within the target population through focus group interviews where we hope to understand *Generation Z's* reflections on our findings.

3.4 Research design

Malhotra (2010) emphasizes that, whenever a new marketing research problem is addressed, quantitative research must be preceded by qualitative. Since the relationship between trust and (e) commerce is thoroughly studied with many publications and performed experiments (Mutz 2005, Lee and Turban 2001, Jarvenpaa, Tractinsky and Vitale 2000, Gambetta 2000, McKnight and Chervany 2000/2001) we have not ourselves conducted a more thoroughly qualitative research but rather built our assumptions and theoretical framework on previously published works. Therefore we dedicate this thesis to achieve a well constructed and extended quantitative research in order to perform a significant statistical analysis. The quantitative method in our thesis is a *survey method* with a structured questionnaire distributed to a sample of a population.

3.5 The survey

The survey was designed with the purpose to collect data in order to conduct a thorough analysis of CTIS. The primary objective of the questionnaire was to gather information in order to understand what drives trust among young adults (*generation Z*). The survey also comprises questions concerning more company specific attributes in order to analyze hypothesis 2. To collect data relevant to the secondary purpose of the thesis a section of questions regarding trust in general were included.

The survey was conducted at three upper-secondary high schools from Stockholm and Lund. The number of complete responses was 265. Due to our strict control at the time of submission and a lollipop reward, the number of incomplete surveys was limited to 15. Out of these the most common reason for exclusion was multiple answers. Since the target population for the survey is young and less informed on the subject we had to be careful when constructing the questions in order to avoid misunderstandings but nevertheless to try to keep interest and motivation among restless youths. The survey was presented in paper form since we believe this was the easiest way of reaching our target group. Not only could we answer potential questions, but also make sure that the pupils would actually complete our survey and not postpone it. If we had performed an electronic survey it would require a gathering of pupils e-mail addresses and running the risk of having our survey neglected. Through the

research tool Qualtrics.com we posted data from all respondents in a replica of the survey in order to compile and export all data.

3.5.1 **Pre-Test**

When constructing the survey we performed a pre-test within the target population to understand how to make the survey more comprehensible as well as to identify and eliminate potential problems. The pre-test consisted of 20 respondents within the target population who first performed the survey and then participated in a group discussion concerning the different statements. The foremost finding from the pre-test was that several simplifications (e.g. if words match the vocabulary level of the respondents) were necessary in order to create an understandable and suitable fit for the pupils. The structure of the survey is built in accordance with Malhotras Questionnaire Design Checklist (2010) where the survey begins with more general questions and then specifies toward the end. This suited the respondents who positively commented that it was easy to follow since the survey was "gradually getting more complex".

Based on the results of the pre-test one theoretical set from the model concerning third-party-certification were excluded since none of the respondents had even heard of the concept¹. In the group discussion we did not only talk about the statements already included in the survey but also if there were any other parameters they considered being relevant. Here the topics payment and delivery were frequently mentioned as important criteria for e-commerce. One of the participants told us about when she one time bought an item on Tradera, but never received it despite that she had already paid for it. This story caused a lot of upset reactions and a very intense discussion. After complementing the discussion with a theoretical review on the areas of payment and delivery we decided to include them in the analysis and survey.

Zandra Rygaard considered the survey to be properly structured in line with relevant techniques and she felt the statements to be well motivated. From the discussion with Zandra we decided to add an additional theoretical set concerning membership and the demand of specifying social security numbers in order to shop online².

¹ The question if the respondents have ever bought anything online was included in the survey to be used as a control factor.

² To assure the survey is relevant to the subject and the industry we conducted an interview with Onsite and Direct Marketing Specialist Zandra Rygaard where we discussed each statement one by one.

3.5.2 Scales and Measure

The survey is structured in sections of four to six questions concerning every area of research. The questions are statements, which the respondents then agree or do not agree upon. These types of questions gives pre specified response alternatives, which facilitate the data preparation and analysis (Malhotra, 2010). According to Söderlund (2005) interval scales are most suited for measuring abstract dimensions such as beliefs and perceptions. The respondents mark their standpoint in each question on a seven-step Likert scale. Likert is classified as interval scales where any identical numerical distance on the scale represents an equal value change in the phenomena being measured (Malhotra, 2010). Further on the Likert scale is a semantic differential scale where the end-values of the scale represent bipolar semantic expressions (Malhotra, 2010). The bipolar expressions applied consistently through our survey is Do not agree – Agree.

3.5.3 Survey Design

In the survey we divided the questions into theoretical sets with three to six questions in each. Four of the eleven sets are included directly from the theoretical model. These five sets have been empirically tested in the study described below. The additional sets are based upon additional theoretical findings, the interview with Onsite and Direct Marketing specialist Zandra Rygaard and the pre test. The questions from the survey are presented in Appendix.

In year 2000 Cheung and Lee performed an empirical study of CTIS among university students in Hong Kong in order to test the validity of the measurement instrument presented with the theoretical model. The test only comprises five of the total sixteen hypotheses and was done through a *three-phase-instrument-development process* developed by the Canadian professors Moore and Benbasat in 1991. Initially, through in-depth interviews with specialists on the subject as well as potential e-shoppers, 19 attributes were identified. The initial construct validity of each attribute was tested through a four-judge panel who sorted the attributes into categories based on what they considered them to measure. A result of high agreement among the judges indicates high initial convergent and discriminant validity. The instrument consisting of 19 attributes were pilot tested on 40 university students which resulted in the exclusion of one attribute, additionally three attributes were removed after a field-test on 405 business school undergraduates. In consultation with Fredrik Törn, PhD at the Center for Consumer Marketing, we consider these questions accurately tested and suitable for further research and have therefore used them as a template when constructing our survey. These questions cover the areas; perceived integrity, perceived ability, trust

propensity, third-party recognition and trust in Internet shopping. However, the questions have been modified considered the knowledge and understanding of the target population.

3.6 The focus groups

With the aim to further understand these young people's perceptions and beliefs regarding e-commerce as well as to rapidly get a hint of if serious misinterpretations had taken place in the quantitative study, we gathered two focus groups of three persons each to discuss the findings. The purpose was also to enrich the picture of the participants' relations to e-commerce since these emotional and behavioral values can be hard to capture statistically. The focus groups took place on Lidingö, six weeks after they participated in the survey. The focus groups had a dual-moderator structure where we both participated, one responsible for keeping the conversation smooth and continuous and the other one making sure the planned topics were discussed as well as noting interesting observations. The questions used as guidelines for the discussions are presented in Appendix. To encourage the participants to take part in the discussion and express their feelings, though teenagers tend to be quite reluctant to share personal information in these types of situations, the participants were offered pizza and ice cream in the beginning of the session. Both sessions lasted for approximately one hour. Unfortunately we were only able to get boys to attend the focus group since the school had the day off but the boys' football team was present due to practice.

3.7 In-depth interviews

During our theoretical review, we developed suspicions regarding inadequacy of applying the model on the target group due to the question if ITP functions as a moderator or a mediator for CTIS. Though, in order to scientifically test this, we needed to extend our knowledge concerning the function and theory of statistical moderation and mediation. To gain an indepth understanding of the methods and to construct a model for empirically testing them, we held pre-interviews with two experts with long experience of the area. Karl Erik Andersson, acknowledged professor at the Institute for Regenerative Medicine, Wake Forest School of Medicine and Fredrik Törn, researcher at the Center for Consumer Marketing, Stockholm School of Economics. These interviews have enabled us to properly understand and conduct the study of the full correctitude of the model.

In order to reach a full understanding of trust within e-commerce we aim to include input from both customers and e-merchants' perspectives. It is important to understand how the people within the e-commerce businesses value and treat the phenomenon of trust and how they work with improving and maintaining customer trust. Also we wished to discuss the results from our quantitative study with experts on the subject. The in-depth interviews were conducted with Ylva Ekborn, Head of consumer Interaction at Tradera as well as with Google's Nordic Policy Counsel David Mothander. The interviews were relatively unstructured; the phenomena of e-commerce and the quantitative findings were freely discussed; strict questions were rarely employed. Before the interviews we constructed a number of open questions and topics in line with Malhotras (2010, p.185) guidelines.

3.8 Validity and Reliability

If and to what extent the results of a research correctly measures the underlying phenomena is the *validity* measurement. Validity is measured within two distinctions, internal and external. Internal validity concerns the correctitude of the independent variables effect on the studied population sample. External validity determines whether the identified cause-and-effect relations can be correctly applied to a larger population (Malhotra, 2010, p.254). There is though a constant risk for a tradeoff between internal and external validity. Common interventions made to achieve internal validity such as conducting experiments in controlled, artificial environments reduces the generalizability of the results, since they are not exposed to the environmental conditions that prevail in the *real world*. The level of consistency within the study is measured as *reliability* and describes to what extent one can expect to achieve similar results if the test were performed at several samples of respondents (Methodology Seminar, Magnus Söderlund).

3.8.1 Internal Validity

To achieve internal validity is essential in order to draw any conclusions based on the results of a study. The required condition for establishing internal validity is to control if the observed effects are possibly influenced by any extraneous variables (Malhotra, 2010, p.255). In order to minimize influences of external variables when conducting the survey all students received the exact same information before taking the survey. During the survey we were present to monitor, answer potential questions and make sure there were no talking in between the students. To further achieve equal conditions among the respondents we distributed the survey in three schools with relatively similar student composition, large schools 600-2000 students, both social and nature science programs, city size 50 000-100 000, median income

260-380 000³. The questions in the survey are considered to accurately match the theoretical variables since they are, to a great extent, based on verified previous studies. This would imply a high *content validity*.

When testing data of latent variables such as beliefs and perceptions it is also important to establish the factorial validity. If the variables included in the analyses abstract and subjective, separated from objective reality, they cannot be directly measured since there are no preknown normal or mean values (Anderson and Gerbing, 1988). The method for correctly measuring these types of variables is indirectly through multiple scale items in a research instrument such as an exploratory factor analysis. Within factorial validity there are two sub categories of validity, *convergent* and *discriminant validity* which together forms the concept of *construct validity* (Straub et al, 2004). These measurements estimate the goodness of fit of the model, if accepted levels of factorial validity, this means that each item is strongly correlated with the items within its dimension but weakly correlated with those in other dimensions. Here the strong correlation within the dimensions represents the convergent validity whilst the weak correlation in between dimensions is described by discriminant validity.

The purpose of conducting an exploratory factor analysis is to convert numerous variables into an appropriate number of theoretical dimensions where each item loads with a high coefficient in only one dimension. If the model is well constructed all items that are related to the same latent construct (e.g. beliefs, perceptions) should load into the same dimension. The rule of thumb to follow is that any item must load with a coefficient above 0.4 to be included in the dimension (Hair et al. 1998). The resulting factors are created through factor scores⁴ and identify the latent variables that create the correlation patterns within the data sample. The rotation method used was a varimax with Kaiser-Normalization, a method that conducts a 20 iterations rotation.

The Kaiser-Meyer-Olkin test of sampling adequacy measures the partial correlations between the variables, the construct validity, and the result of KMO should exceed 0.5 for the factor analysis to be considered to fit (Malhotra, 2010). Bartlett's test of sphericity is another

CTIS. Hersby: 123 respondents, mean CTIS 5.6. Katedralskolan: 87 respondents, mean 6.0. Polhemskolan: 46 respondents, mean 7.6.

The choice to use factor scores instead of creating indexes was based on the learning from SSE course Busine

The results divided by school are very similar; a small but interesting difference can be seen in the levels of

⁴ The choice to use factor scores instead of creating indexes was based on the learning from SSE course Business Research. Then, to test the reliability of the factors we grouped the including variables from each factor in indexes and tested reliability through Cronbach's alpha or Pearson's correlation tests. See table 1 below.

measurement of the strength of the relationships in between the variables; it tests the hypothesis that all variables in the population included in the test are uncorrelated. If the hypothesis can be rejected the sample is suitable for factor analysis.

For the qualitative parts of the thesis we achieve *theoretical validity* through cross checking the results of the quantitative study with both expert and respondent opinions. This indicates to what degree the theoretical model and review fits the quantitative data.

3.8.2 External Validity

External validity concerns the applicability of the results beyond the initial test (Malhotra, 2010, p.255). Since 92.1 percent of the respondents participating in the study have bought online the external validity should be quite high. Problems with low external validity arise if an experiment is conducted in an unrealistic environment that does not take normal interaction into account. According to the sample size guidelines for multiple regression analysis (Törn, 2011) 15 n/independent variables, the current sample size is accepted, though a larger sample population would have further strengthened the external validity. The sample has a relatively even composition with 54 percent women and 46 percent men, 54 percent from Lund and 46 percent from Lidingö.

3.8.3 Reliability

When testing for reliability, systematic sources of error are not negatively affecting the scores since their effect on the measurements is consistent. What decreases reliability is the random error since it creates inconsistency within repeated measurements. Malhotra (2010, p.319) describes three methods for assessing reliability, test-retest, alternative forms and internal consistency. In the quantitative study we have applied internal consistency reliability where several items measure different aspects of a singular construct, these items are then summed to form a total score. The sets of items are identified through the factor analysis and the internal consistency within each set is measured by Cronbach's Alpha, a calculated average of all split-half coefficients on the scale. Though, five of the sets consist of only two variables with only one possible split-half reliability, this is preferably measured by a Pearson correlation test. In table 1 below are the results of the reliability analysis on the independent as well as the dependent and moderator/mediator variables⁵.

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⁵ See Appendix for a correlation matrix that illustrates the correlation in between the variables as well as mean values and standard deviation.

Set	No. items	Cronbach's α	Pearson	% of variance
Contextual	6	0.792	-	19.765
Integrity	6	0.740	-	8.134
Internet	6	0.672	-	5.642
Personal information	4	0.729	-	4.519
Security	4	0.704	-	4.201
Size - Reputation	2	-	0.470	4.039
Influencers	2	-	0.406	3.694
Membership	2	-	0.456	3.390
Delivery	2	-	0.170	3.212
Payment	2	-	Not sig.	2.879
Trust Propensity	4	0.870	-	-
CTIS	4	0.714	-	-

Table 1: Results of the reliability analysis, KMO = 0.820, each variable is measured on a seven step Likert scale.

A majority of the questions included in the survey are well known measurement variables verified and tested in previous studies (e.g. Cheung and Lee, 2000), this further increases the probability of high internal consistency (Söderlund, 2005). Considering the qualitative part of the thesis such as the interviews and the focus group it is important to achieve high qualitative reliability. This is done through careful and correct methods for data collection and registration. The interviews as well as the focus group were prepared in line with Malhotras guidelines, recorded and immediately transcribed in order to correctly capture the thoughts and opinions of the participants.

3.9 Methods of analysis

To analyze the data from the survey SPSS 19.0 was used. The primary analysis will be on industry level where we aim to identify the drivers of trust within e-commerce as a whole. As a second step we will narrow down to company level and study what creates trust toward individual companies within the industry.

An initial factor analysis gives us a smaller set of variables which, when applied as independent variables in a regression analysis has a distinctly lower probability of multicollinearity. A multiple regression analysis is according to Malhotra (2010) a statistical method which identifies mathematical relationships between the numerous independent variables and the dependent variable⁶. The dependent variables in the analyses are an interval

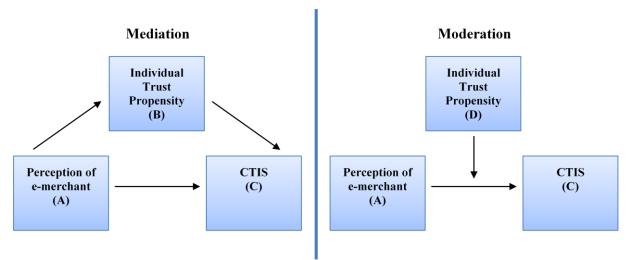
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⁶ Construct of initial regression models $Y_{1\&2} = \beta_0 + \beta_{\text{(factor 1)}} * X_1 + \beta_{\text{(factor 2)}} * X_2 + \beta_{\text{(factor 3)}} * X_3 + \beta_{\text{(factor 4)}} * X_4 + \beta_{\text{(factor 5)}} * X_5 + \beta_{\text{(factor 6)}} * X_6$

scaled index created out of the 4 questions in the survey concerning *consumer trust in e-commerce* respective the factor representing *trust in e-merchants*.

3.9.1 Moderation or mediation - the effects of differencing individual trust propensity

The original trust model developed by Lee and Turban (2001) implies that the respondents ITP moderate the strength of the relation between the independent and dependent variables. Before analyzing the moderating effects we will conduct two tests in order to delineate whether it is a case of moderation or if it rather is a matter of mediation. Since Generation Z has grown up with advanced technology constantly present it is highly possible that emerchants have actually taken part in the development of the respondents' own trust propensity. This implies that the relationship between the perception of an e-merchant and the CTIS includes a third variable, a mediator variable that creates a two-step causal relation. Below are two models that illustrate the different effects of mediation respective moderation. Mediation where an independent variable (A) causes the Mediator (B) which in turn causes the dependent variable (C) instead of a direct relation between the independent and dependent variable $(A \rightarrow B)$. Moderation is when the relationship between an independent (A) and a dependent (C) variable is affected concerning direction or amplitude by a third, moderating variable (D). In other words, mediation contains an intervening factor that produces and mediates the effect of the independent variable on the dependent. Moderation involves factors that affect the direction and magnitude of the independent variables impact on the dependent (Preacher, Rucker and Hayes, 2007 & Petty, 1993).



Model 3: Theoretical charts illustrating Mediation respective Moderation (Baron & Kenny 1986).

Our analyses will test the relation between the respondents' perception of the e-merchant and the dependent variable, CTIS to identify if different levels of ITP have a moderating or mediating effect. The table below shows the definitions of the variables included in the models.

Variable name	Description	Data	Scale/Measurement
X _i	Independent variable	Perception of e-merchant/ Internet as	Scale 1-7
		shopping medium/Contextual factors	
Mo_i	Moderator	Individual Trust Propensity	Scale 1-7
Me _i	Mediator	Individual Trust Propensity	Scale 1-7
Yi	Dependent variable	Consumer Trust in Internet Shopping	Scale 1-7

Table 2: Definitions of the variables included in the models.

Mediation implicates that the indirect effect of the online purchase, via the mediator, on CTIS is stronger than the direct effect. The model testing for mediation consists of three regression analyses and an equality condition.

$$Y = \beta_{10} + \beta_{11}X + \epsilon_{1}$$
 [1]
$$Me = \beta_{20} + \beta_{21}X + \epsilon_{2}$$
 [2]
$$Y = \beta_{30} + \beta_{31}X + \beta_{32}Me + \epsilon_{3}$$
 [3]
$$\beta_{11} - \beta_{31} = \beta_{21} * \beta_{32}$$
 [equality condition]

In order to strengthen the hypothesis of mediation, a test for moderation will be applied through the following equation.

$$Y = \beta_{40} + \beta_{41}X + \beta_{42}M_0 + \beta_{43}XM_0 + \epsilon_4$$
 [4]

We conduct a series of tests in order to find support for our theories regarding the potential irregularity of the original theory of moderation, to accept the hypotheses of mediation. Each hypothesis is combined with a test of moderation in order to increase validity in finding support for the hypotheses. The sub hypothesis that controls for moderation is constructed as follows. *Individual trust propensity does not have a moderating effect on the relation between X and their development of CTIS*, where X represents each of the three main independent variables. Also there are five sub conditions that need to be met in order for the hypothesis to hold.

1: $\beta_{11} \neq 0$ the overall effect of a customer's perception of an e-merchant on CTIS is significantly different from zero.

- 2: $B_{21} \neq 0$ there is a significant effect of a customer's perception of an e-merchant on the mediator variable, the Individual Trust Propensity.
- 3: $\beta_{32} \neq 0$ the mediator variable, Individual Trust Propensity, has a significant impact on the output variable, CTIS.
- **4:** $\beta_{31} < \beta_{11}$ the residual effect of the treatment variable should be smaller than the overall treatment effect, in absolute numbers.
- 5: $\beta_{43}XMo \neq significant$ in the sub hypotheses, the interaction effect between the customer's perception of an emerchant and the moderator interaction cannot be significantly proven.

4. RESULTS

The results section will be structured by the previously presented research questions. Each hypothesis will be studied through three methods. The results of the initial quantitative study will be interpreted in focus groups and in-depth interviews. In order to analyze the credibility and reliability of the results the three methods will be compared. The quantitative section will be predominant in order to reject or accept the hypotheses whilst the qualitative study aims to create further understanding.

4.1 Hypothesis 1; the independent variables in the Trust model contribute to explain the variation in Customers' Trust in Internet Shopping.

Our first hypothesis concerns identification of factors driving CTIS within *Generation Z*. The factor analysis reduced the 36 variables included from the survey into ten dimensions, which explain 59.47 percent of the total variation. The results of Keiser-Meier-Olkin and Bartlett's tests showed significance and high goodness of fit which implies a reliable and valid model. The payment dimension was however excluded due to insignificant correlation in between the included variables. The valid dimensions were included in a regression analysis in order to identify their respective importance and impact⁷.

Dimension	Theoretical Variable
Contextual dimension	Contextual factors
Integrity dimension	Trustworthiness of Internet merchant
Internet dimension	Trustworthiness of Internet shopping medium
Personal information dimension	Other factors
Security dimension	Contextual factors
Influencers dimension	Other factors
Size and Reputation dimension	Other factors
Membership dimension	Other factors
Delivery dimension	Other factors
Payment dimension	Other factors

Table 3: Dimensions from factor analysis explaining 59.47 percent of the total variation and their counterpart from the theoretical part.

⁷ See Appendix 7.1 for correlation matrix over all variables.

The results from the regression analysis indicate that Turban's theoretical model is highly suitable for tests of trust in e-commerce within *Generation Z*. In table 4 below the independent variables in the model and their respective impact on CTIS is presented.

To interpret and estimate the validity of the results from the analysis the guidelines for t-statistics are applied. The test shows increasing strength the larger positive or negative t-value, critical values are at t < (-2) and t > 2. Four variables from the initial set of independent variables were excluded since they did not meet the t-statistical criteria (SPSS Base 9.0, 1999). Since the t-values show significance it is reliable and relevant to use the p-values in order to reject or accept the null hypotheses. In this test we apply a five percent significance level, since this is the general default level in the current version of SPSS.

1 Variable	Beta(unstandardized)	P-value	T-value
Contextual dimension	0.210	0.00	4.040
Integrity dimension	0.299	0.00	5.748
Internet dimension	0.295	0.00	5.656
Personal information dimension	0.287	0.00	5.501
Security dimension	-0.142	0.07	-2.217
Influencers dimension	-0.137	0.09	-2.631

Table 4: Results from regression analysis where the variables highlighted are the most influential on CTIS, Adjusted R²=0.318.

The three main factors from the theoretical model are the ones with the highest coefficients in the analysis. They are all highly significant and positively correlated with the development of CTIS. The Adjusted R^2 value of the test measures 0.318 which implies that 31.8 percentage of the total variation can be described by the total effect of these six variables. This is a good test result according to the guidelines concerning Adjusted R^2 values (Newbold, 2007).

The primary drivers of trust within *Generation Z* are trustworthiness of Internet merchants and trustworthiness of Internet shopping medium. Dividing the population by men and women the results show that for men, the Internet dimension is clearly dominant whilst for women a combination of Integrity and Personal information has the highest scores. Another difference is that for women but not for men, Security and Influencers dimensions are significant.

4.1.1 Focus group

According to the participants in the focus group the main reasons for shopping online are comfort, large assortment, possibility to visit several stores simultaneously and good prices. Discussing the topic of Internet as a shopping medium the participants are open and positive talking about how growing up with Internet has created a very relaxed and calm attitude

towards the medium. They also explain how Internet is such a great part of their everyday lives that online shopping is almost as natural as regular shopping. Despite the positive attitude the participants emphasize the importance of thinking twice before giving out any personal information; we can hear from the discussion that this is an area where parents still have great influence.

"Of course there are risks...but it is not like you care" Karli, 17

"I can admit that I am addicted to Internet, I interact and live my life just as much online as offline, I mean from the moment I come home from school I hang around at Facebook. I'm basically online 24/7" Oscar, 18

4.1.2 Ylva Ekborn, Tradera

According to Ylva they have noticed a significant difference between younger people and adults' online behavior and attitude toward Internet, however it is not necessary a result of differing levels of trust. Experience is the key to further engagement such as if you are already active on Facebook, maybe blogging – the leap till actually buying online isn't hard to take. To the contrary, if you only use computers for work, never sharing any personal information, then it is a big step to actually commit oneself in an online activity where it is necessary to reveal a part of one. The lack of confidence that comes from acting in a relative unknown, uncontrollable medium such as the Internet can only be overcome if we, the powerful players, are transparent and honest, communicating with the consumers.

4.1.3 David Mothander, Google

David Mothander describes one of the keys to create trust within a society, in between organizations, institutions and individuals as the capacity to create an open and transparent society. David defines society today as at least as much online as offline. Further the interview clarifies his thoughts on the connection between security and e-commerce. Today there are extensive backup systems and advanced competence to create a technical security. The rise of insecurity lies to a great extent within the areas of integrity and personal control, for example the vivid debate on handling of cookies. An increase in private consumption is essential in order to maintain the Internet industry's rapid growth pace which in turn is of great importance for the entire economy. With distrust being the main obstacle for engaging in e-commerce trust becomes substantial to future economic growth.

4.3 Hypothesis 2; the trust in individual e-merchants is not driven by the same antecedents as overall CTIS is.

Our second hypothesis concerns drivers of trust in individual e-merchants. Since CTIS is classified as dispositional trust while trust in individual companies is interpersonal we suspected there to be significant differences. The model for testing this hypothesis is linear regression.

2 Variable	Beta	P-value	T-value	
Contextual dimension	0.217	0.000	4.097	
Internet dimension	0.139	0.009	2.623	
Personal information dimension	0.147	0.006	2.780	

Table 5: The results from regression analysis concerning trust in individual e-merchants. Dependent variable, Integrity, Adjusted R^2 =0.297.

Using t-values to interpret the correctitude of the model only three variables are considered acceptable, (t = 4.097 > 2, t = 2.623 > 2 and t = 2.780 > 2). The p-values are lower than 0.05 and the variables are therefore significant at a five percent level. The most influential variable is *contextual dimension*, which comprises questions regarding security regulations and guarantees, but also the presence of external systems for payment and delivery. The *Internet dimension* concerns functionality and technology of Internet as shopping medium, this represents an extra dimension of insecurity since the online world still is a relative unknown environment. These two dimensions as well as the personal information dimension are all substantial and concerning practical events rather than abstract emotions and beliefs. Since trust within a relationship between a customer and an e-merchant, a directly existing object, is rather concrete with both parties present and "non-virtual" it is natural to focus on practical problems.

4.3.1 Focus group

Regarding what makes an e-merchant trustworthy the respondents primarily mention friends' and family's opinions and recommendations as well as the merchant's reach and reputation. The group expressed a distinct lack of trust in the Swedish legal system and meant that it is the e-merchant that needs to deal with potential problems. Therefore they think it is important to shop at reliable, well known companies. The group also accentuated short and clear purchase agreements, guarantees and rights to return as important trust enhancers.

"If it is free to return clothes that do not fit I find the site more trustworthy cause then it doesn't feel like they want to trick me into buying anything" Emil, 18

"For your own sake it is best to shop at stores you know are good and honest because if something goes wrong, the police sure doesn't care" Fredrik, 18

4.3.2 Ylva Ekborn, Tradera

A bad buyer experience is the primary reason for distrust to occur and when you are young with low prior experience from e-commerce, any incident gets much larger proportions. That's why young people could be perceived as more vulnerable than older, more experienced persons. As a large player on the online market we believe three pieces of our work is essential for creating trust. First we work *hands-on* with consequences of bad seller behavior such as excluding members acting illegal, closing down inappropriate auctions or preventing sales of illegal copies. Since we do not control the goods or transactions such as regular emerchants do, we have to work *proactively* through coaching sellers to understand the importance of gaining the consumers trust. Finally, it is crucial to be honest and open toward the customers, trying to withhold or black out information or problems will only lead to misunderstandings and distrust. *Communication and transparency* is the only way to overcome the gap between us as a "marketplace" and the buyers. We have to communicate and prove that it is not as dangerous as perceived to shop at Tradera.

4.3.3 David Mothander, Google

Everyone signing up for a Google account automatically gets access to a private dashboard where all information concerning privacy, storing of personal information, cookies etc. are available. This is our way of creating highest possible levels of transparency and personal control. We are also participating in the development of new industry standards regarding the privacy regulations. We believe in working for an open society but we do not push any information toward the customers. Since Google is a free service, we believe that people will actively find the information they wish to attain. One thing that differentiates online business from offline is that online there exists no such thing as customer switching costs, customers are notorious cheaters. The only way of maintaining customers is to create a relation built on trust.

4.4 Hypothesis 3-5: individual trust propensity has a *mediating* effect in the relation between customers' perception of an e-merchant/Internet as shopping medium/Contextual factors and their development of CTIS.

These hypotheses test whether the respondents' individual trust propensity act as a mediator in the relation between the three main independent variables and CTIS. Each hypothesis consists of the equation system below which structures a series of regression analyses.

$$Y = \beta_{10} + \beta_{11}X + \epsilon_{1}$$
 [1]
$$Me = \beta_{20} + \beta_{21}X + \epsilon_{2}$$
 [2]
$$Y = \beta_{30} + \beta_{31}X + \beta_{32}Me + \epsilon_{3}$$
 [3]
$$\beta_{11} - \beta_{31} = \beta_{21} * \beta_{32}$$
 [equality condition]

Each hypothesis will then be backed up with a test of moderation in order to increase results validity. $Y = \beta_{40} + \beta_{41}X + \beta_{42}M_0 + \beta_{43}XM_0 + \epsilon_4$ [4]

Hypothesis 3 has empirical support since the equality condition holds as well as all test results are found significant. ITP does have a mediating effect in the relation between customers' perception of individual e-merchants and the development of CTIS. This implies that e-merchants contribute to the creation of these young people's ITP and personality.

3 Variable	Dependent	Beta	P-value	T-value	
[1] Integrity Dimension	CTIS	0.299	0.000	4.960	
[2] Integrity Dimension	Mediator	0.313	0.000	3.939	
[3] Integrity Dimension	CTIS	0.244	0.000	4.032	
[3] Mediator	CTIS	0.176	0.000	3.803	

Table 6: Results from regression analysis concerning mediation in the relation between trust in individual e-merchants and CTIS.

 $\beta_{43}XMo \neq significant$, the interaction effect between the customer's perception of an emerchant and the moderator interaction cannot be significantly proven. This result strengthens the theory that e-merchants, as a natural and obvious part of the environment, have a role in creating the young people's trust propensity.

3B Variable	Beta	P-value	T-value	
Integrity	0.332	0.000	4.510	
Moderator	0.300	0.022	2.303	
X*Moderator	-0.192	0.312	-1.013	

Table 7: Results from regression analysis concerning moderation in the relation between trust in individual e-merchants and CTIS.

Hypothesis 4 lacks empirical support since the test result of the indirect effect of the independent variable on CTIS via the mediator is not found significant. ITP does not have a mediating effect in the relation between customers' perception of Internet as shopping medium and the development of CTIS.

4 Variable	Dependent	Beta	P-value	T-value
[1] Internet Dimension	CTIS	0.295	0.000	4.873
[2] Internet Dimension	Mediator	0.049	0.552	0.596
[3] Internet Dimension	CTIS	0.284	0.000	4.896
[3] Mediator	CTIS	0.212	0.000	4.793

Table 8. Results concerning mediation in the relation between customers' perception of Internet as shopping medium and CTIS.

 β_{43} XMo \neq significant, the interaction effect between the customer's perception of an emerchant and the moderator interaction cannot be significantly proven.

4B Variable	Beta	P-value	T-value	
Internet	0.331	0.000	4.643	
Moderator	0.321	0.014	2.468	
X*Moderator	-0.145	0.271	-1.104	

Table 9. Results concerning moderation in the relation between customers' perception of Internet as shopping medium and CTIS.

Hypothesis 5 has empirical support since the equality condition holds as well as all test results are found significant. ITP does have a mediating effect on the relation between customers' perception of the contextual factors included in the model and the development of CTIS.

5 Variable	Dependent	Beta	P-value	T-value	
[1] Contextual Dimension	CTIS	0.210	0.001	3.404	
[2] Contextual Dimension	Mediator	0.356	0.000	4.514	
[3] Contextual Dimension	CTIS	0.143	0.023	2.283	
[3] Mediator	CTIS	0.191	0.000	4.008	

Table 10. Results concerning mediation in the relation between customers' perception of the contextual factors and CTIS.

 β_{43} XMo \neq significant, the interaction effect between the customer's perception of an emerchant and the moderator interaction cannot be significantly proven.

5B Variable	Beta	P-value	T-value	
Context	0.198	0.013	2.500	
Moderator	0.256	0.067	1.841	
X*Moderator	-0.040	0.765	-0.299	

Table 11. Results concerning moderation in the relation between customers' perception of the contextual factors and CTIS.

4.4.1 Focus group

An interesting discussion concerning whether e-merchants are a natural part of the young people's picture of society resulted in the following observations. Shopping online is becoming as natural as offline; the participants consider it to be both convenient and exciting. They tell us that even when very young their mothers bought their clothes from the H&M catalogue, so distance shopping and home delivery comes very natural.

"I do not think it's anything unnatural with shopping online since I have always done it. Of course I understand why my dad thinks it's a bit scary; he still talks about running to the kiosk buying "I-öres" candy" Fredrik, 18

"Even if I buy a pair of jeans in store I have picked them out online, compared prices and located where I can buy them. So it's actually not a big difference if I actually buy them online or not – it's still largely taking place on the Internet" Oscar, 18

To further understand what differentiates generation Z from previous generations, we discussed the topic "differences between you and your parents". The words used for describing adults' perception and usage of Internet shopping were suspicious, seldom, fear and skepticism. Except for one participant who told us about how his mom shop online all the time. They believe the reason why many adults think and act like they do is simply because they are accustomed to something else and see Internet shopping as an unnatural modernity.

"My mom says people only shop online because they are lazy, she thinks people should get out more. She is always nagging on me not to sit by the computer, and she doesn't want me to have an iPad" Emil, 18

"Adults are more skeptical towards Internet usage than my generation, since they are reluctant in trying new things" Oscar, 18

4.4.2 Ylva Ekborn, Tradera

Younger people have a behavior and attitude that radiates trust and comfort. Growing up with computers and Internet has created deeply rooted computer skills and habits. Adults who have not played with and got to know computers inside out during their growth, experience an additional barrier to engaging online. Trust in Internet and e-commerce has definitely increased due to improved computer skills and experience, however the increased Internet usage may have damaged general trust in our fellow humans and the society. According to Brå (report 2007:11 "adults' sexual contact with children through Internet") 31 percent of Swedish students have experienced some form of sexual contact or proposal online from someone they knew were adult. This can damage a young person for life creating high levels of distrust toward the society and people around them. Ylva says that we maybe should not be too quick to flag this new generation's behavior as trust before properly excluding reasons as inexperience, naivety or group pressure.

4.4.3 David Mothander, Google

There is a conflict of interest and behavior between the young people acting in the online environment and the adults controlling it through legislation and standards. The older, controlling generations need to some extent disregard their own opinions and be humble for generational differences.

4.5 Result summary

The empirical tests of the hypotheses are primarily based on the results from the quantitative analysis. The focus group is a too small sample for any reliable conclusions to be drawn; however the findings are very interesting and used to interpret the quantitative results. Hypothesis one and two are overall supported by the results from the focus group and interviews. However, there are several more reasons for increasing/decreasing CTIS mentioned in the focus group, despite that they are not included or insignificant in the quantitative analysis. This is not seen as contrary results but rather complementary. There are most certainly numerous different factors affecting CTIS of which we have only included a few in the model. Also, trust is highly individual and continuously shifting whereas a limited quantitative study cannot possibly project them all. Regarding hypotheses three to five the quantitative and qualitative results clearly point in the same direction. The participants were highly aware of Internet's influence over their personal development; they even described themselves as digital addicts thinking bad things online only strike other people. They also find the distinct behavioral differences between themselves and older people perfectly natural comparing it to the sayings "it is hard to teach old dogs to sit" or that" it's hard to teach adults how to ride a bike".

5. DISCUSSION

This section will summarize the findings from the quantitative and qualitative study as well as develop further understanding of the results through linking them to relevant theory. We will begin with a general discussion of the creation of trust before narrowing the discussion on the identified trust drivers. Potential implications for online companies as well as advice for future e-shoppers will be considered as well as recommendations for further studies.

5.1 Discussion and critics of the results in the study

The results from the study imply that the components of Lee and Turban's trust model are relevant to the new generation of e-shoppers. The three antecedents of trust, presented in the model as main drivers for the development of CTIS are also the foremost influencing variables in the quantitative study. The area where the generational differences create a divergence from the original model is the moderating effect of ITP. The results from the quantitative study as well as the focus groups and interviews point in the same direction, ITP has a mediating effect in the model and there is a three step causal relation that creates the development of CTIS. Before any conclusions are drawn there must be a critical discussion regarding the accuracy of the analyses. Are the results presented in the quantitative analysis originated from the variables included in the model or are external factors affecting the results? Also, the qualitative conclusions should be critically reviewed in order to determine if they have provided an acceptable, truthful view of CTIS or if insufficient samples or research methods have distorted the picture. Summarizing the results of the survey shows that the respondents overall had relative similar profiles. In order to attain reliable results there would have been desirable to have a larger variation within the sample or preferably, a larger sample. However, since the sample size is statistically acceptable there is a possibility that the similarity in the respondents' results is accurate.

The focus groups did consist of students from the same school, which could imply that it would provide an insufficient picture, not representative for all young e-shoppers. The participants were though chosen depending on their previous experience with e-commerce in order to attain a group with a broad spectrum of experience and perceptions. What also increases the importance and reliability of the focus group findings are the *group behavior* that commonly prevail within the generation. As mentioned by both Ylva Ekborn and John Palfrey and Urs Gasser (2008), the authors of the book *Born Digital*, the young people of today has a social culture characterized by social belonging and group pressure. The increased probability for aggregated group opinions improves the reliability of the focus group.

Conducting interviews with representatives from different areas of the Internet industry is believed to further broaden the picture and decrease distortion.

5.2 Conclusion of results

When formulating the frames of the thesis our main purpose was to identify the drivers of CTIS within *Generation Z*. However, the theoretical review gave us reasons to suspect that the generational difference between the target population and previous, created a divergence that made the chosen model inappropriate. The thesis was therefore extended to comprise the study of ITP's role within the trust model. The results from the study show clear support for the mediation hypothesis and we can conclude that the trust driving variables not only affect the developed levels of CTIS but also young people's ITP. The results concerning the importance and influence of the main drivers of CTIS will be more closely discussed below. The study of hypothesis 2, concerning trust in individual e-merchants, provided somewhat contrarious results which are insufficient for drawing precise conclusions but interesting as basis of further discussion.

5.3 The creation of trust within Generation Z

5.3.1Trust in Internet shopping

With origin in a social-psychological perspective the thesis' theoretical foundation for understanding trust was constructed. Trust in fellow humans and the offline society constitutes the primary levels of trust whilst Internet connection and online engagements add further dimensions of trust. The higher levels of trust, needed when perceived uncertainty and risk are high as when acting online, emphasizes customers' perception of attributes such as predictability, ability, benevolence, fairness, goodness and honesty. The results of our study correspond to the theory and imply that trust among young people today is driven to a large extent by the factors identified in the model⁸. An interesting point is found when comparing the quantitative results with the information obtained from the discussion with focus group. The quantitative study shows significant impact from several of the included variables whilst they are not at all spontaneously mentioned in the focus group. The participants tend to talk about trust as the advantages and excitement of shopping online mentioning problems as something *only striking others*. To trust in Internet and online activities seem to become something natural, almost subconscious. As Palfrey and Gasser write in the book, Born

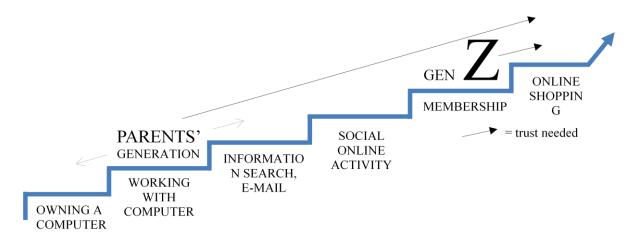
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⁸ This statement implies that out of the tested variables the most influential ones are those that Lee and Turban included in their 2001 years model. However there is most likely other variables involved in the development of CTIS which we haven't tested for, the relatively low Adjusted R² value of 0.318 further indicates that there are additional factors involved.

Digital (2008), many young people consider interacting and conversing online perfectly private and secure. The actual difference between the quantitative and qualitative parts of the study may be the most important finding. *Generation Z* does develop trust on the same basis as previous generations, but for them, the online world has become perfectly integrated with the offline and the risk awareness that should be triggered from acting in an unknown environment is not.

The findings imply that it might be suitable to redefine the definition of trust in the model in order to accustom it to the target population. Ylva Ekborn raises the question of whether the diverging behavior of the new generation is actually a result of increased trust or rather due to innocence, naivety or group pressure. This implies that the trusting behavior or *disposition to trust* might be a result of the individuals *trusting stance* which according to Riker (1974) is a strategy to trust based on subjective calculations of the odds of success, a consideration that all parties gain from trusting behavior.

Also computer experience is pointed out as a key to a more *frivolous* Internet usage. The propensity to engage in e-commerce can be resembled to a staircase where every step represents levels of online engagement. The more steps you need to climb the more barriers of perception and insecurity need to be overcome and higher levels of trust are needed. Members of generation Z starts, due to their digital background and previous developmental experience, at higher levels than previous generations. With support in this study we propose that, in order to understand CTIS, it is not only important to understand what drives the development of trust but also to what extent different individuals need trust. Therefore the initial model is combined with a staircase of engagement that illustrates levels of trust required to engage in e-commerce.



Model 5. Staircase showing trust required for different levels of online engagement.

In line with the empirical results we propose that the independent variables in Lee and Turban's original trustmodel (2001) is revisited. Trustworthiness of e-merchants and trustworthiness of Internet as shopping medium is maintained as in the original model. Within the dimension of Contextual factors third-party-certification systems should be excluded and replaced by handling of personal information since this proved to be of great importance in order to create a safe and trusting context. Further we propose the introduction of one additional variable, the infuencers dimension since the generation pays great attention to friends and fammilys opinions and displays a clear *group behavior*.

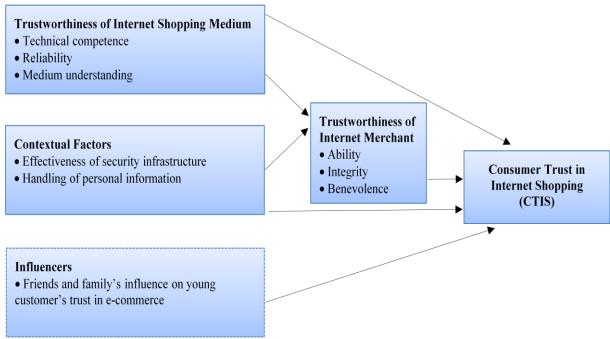
5.3.2 Trust in individual e-merchants – interpersonal versus dispositional trust

Further on, the main purpose of the thesis also includes the study of potential differences in the development of CTIS respective trust in individual e-merchants. The theoretical foundation of the second hypothesis has its origin in McKnight and Chervany's (2000/2001) classifications of trust. They divide the concept of trust in interpersonal, institutional and dispositional where interpersonal trust distinguishes itself from the other two since there is a concrete *trustee* present to be held responsible. To trust in a physically existing party shift the drivers of trust from the *trustor's* abstract perceptions and expectations toward the trustee's knowledge and capacity and the technical problems that may interfere in the transaction. According to Cheskin (2000) a shallower, more hands-on level of trust is required since risk in commercial relations is primarily concerning monetary or material matters rather than when personal values are at stake.

The results of the quantitative study and the focus group supports the theories mentioned above; the significant factors from the quantitative study are contextual, Internet and personal information dimensions. The contextual dimension comprises variables such as warrants and security systems, but also the Swedish legal systems and the legislation concerning ecommerce. Rights to return are clearly emphasized in the focus group as increasing trust through signaling that the company does not want to trick you in to buying. The Internet dimension concerns technical competency as well as security regarding online monetary transactions. Personal information is a dimension which to a large extent comprises the security concerns connected to payments and delivery. When conducting an online payment the fear is no longer focused on losing the transferred money but rather on the risk that personal information such as identity or card number get in the wrong hands.

Within *Generation Z*, the lack of own experience increases the proportion of impact any purchase has on the buyer since they have not yet developed the same individual stability or protection mechanisms as older people have. As Ylva Ekborn says their priority is to prevent members from ever having a bad buyer experience since one single incident can create terminal distrust.

The hypothesis that trust in individual e-merchants is not driven by the same factors as CTIS is, cannot be rejected since the results are not distinctly coherent. We argue that, regarding the development of trust on company level there is an emphasis on trust drivers that take the shape of practical implications rather than personal perceptions and beliefs. Since trust in individual e-merchants is identified as a driver of CTIS there could be possible to include the results from both hypothesis 1 and 2 in a causal relationship. The model presented below illustrates a potential causal relationship where trustworthiness of Internet as shopping medium and Contextual factors contributes to the development of trust in e-merchants which in turn affects reached levels of CTIS. However, this model requires further research before conclusions drawn regarding the structure of the relation. any can be



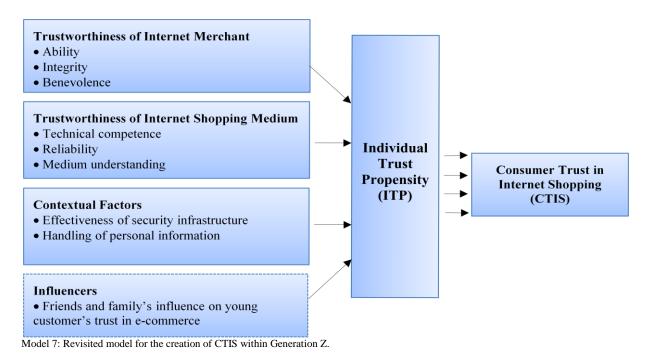
Model 6: Model showing potential causal relationship between trust in Individual e-merchants and CTIS.

5.4 Individual Trust Propensity – A trust mediator

The secondary purpose of the thesis was to create a further understanding of the meaning of ITP in the development of CTIS. The original model's assumptions of ITP's moderating function were questioned after the initial theoretical review. According to Hofstede's (1980) definition of ITP as an individual's personality type in combination with cultural background

and developmental experience, Internet and e-commerce should reasonable have influenced *Generation Z's* development of ITP. The quantitative study supports the theories of ITP's mediating function in the relation between trust in individual e-merchants and CTIS as well as contextual factors and CTIS. Within the relation between Internet as shopping medium and the development of CTIS the results are not significant which prevents us from drawing any conclusions, however the test for moderation is also insignificant whereby we cannot either establish a moderating effect. The insignificance may be a result of an insufficient sample or possibly an effect of the extended integration between online and offline that prevails within *Generation Z*. If acting online has become so natural that they barely bethink it, then it might not have had extensive impact on their personal development. The results from the focus group point in the same direction, the participants talk about how they are constantly connected and almost addicted to Internet without even reflecting over it, the boarders between online and offline is gradually getting blurred.

Mediation implies that there is a two-step causal relationship where the perception of the independent variable affects the level of ITP, which in turn causes the development of CTIS. We argue that the moderating assumption in the model is not applicable on the new target population and thereby we propose a revision of the original model to construct a *Modern Trust Model for Consumer Internet Shopping*. This modern trust model is illustrated below where the independent variables take part in creating the individuals' trust propensity which in turn takes part in their development of CTIS.



5.5 Final discussion – A modern trust model

Generation Z displays a significantly different online behavior than many previous generations, a behavioral pattern that signals trust and comfort. Due to the rapid growth of ecommerce we dedicated this thesis to identify what drives the increased levels of trust within this new generation of e-shoppers. Applying a well known, previously empirically tested trust model on a new target population, we aimed to find new keys to building trustful customer relations. What we found was that the originally identified drivers of trust are actually, with the exception of a few corrections, applicable on the new population. The main divergence identified between the new and previous generations was instead the role of ITP within the creation of CTIS. Due to the fact that Internet and e-commerce is a part of the young people's growth, they take part in the individuals' personal development. Thus, ITP has a mediating effect in the relation between the model's independent variables and the development of CTIS. An interesting discussion that has emerged from the qualitative study is the question of whether the differing behavior is a result of increased trust or if it is rather due to reasons such as inexperience, naivety, group pressure or simply an absence of need of trust. Are these young people experiencing such extended integration between the online and offline world so that the perceived risks has decreased so to the extent that the need for trust is drastically reduced. The trusting behavior might also be further studied from the perspective of trusting stance where actions are motivated by strategic decisions based on subjective calculations of the odds of success rather than actual faith in humanity and institutions.

5.6 Further research and Practical implications

The area of e-commerce is well explored from numerous angles, not least the relation between trust and e-commerce. Although the rapid development of the online market has caught a lot of attention, the implications of the development for the role of trust have been overshadowed by other more obvious effects. We consider it to be of great importance to understand this new generation of e-shoppers, both since they are becoming increasingly active on the online market but also since they in about ten to fifteen years will be the *new adults*. Important are the implications of ITP's mediating effect. That companies are aware of that they are actually affecting young people's personal maturity, taking part in the development of their personal beliefs and approach toward society and fellow humans. Also, it is important to understand the proportions any incident gets when the customer is young and inexperienced – when handling new customers the success of every transaction is essential.

The discussion on the extended integration of the online and offline world that distorts the risk perception and awareness among young people has to be noticed. A behavior where one is taking risk, revealing personal information in a medium that never ever forgets need to be regulated by healthy individual risk awareness. *Generation Z* needs to be, despite native advanced computer skills, careful because unfortunately, bad things are not something that only happens to others.

The first generation of Digital Natives – children who were born into and raised in the digital world – is coming of age, and soon our world will be reshaped in their image. Our economy, our politics, our culture and even the shape of our families will be forever transformed. Palfrey & Gasser, 2008

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Interviews

Zandra Rygaard, Tradera: 2011-03-20, 14.00.

Karl-Erik Andersson, Professor: 2011-04-25.

David Mothander, Google: 2011-05-17, 14:00.

Ylva Ekborn, Tradera: 2011-05-18, 10:30.

Focus Group Participants

Group 1: 2011-05-16, 12:00: Emil, Fredrik and Oskar.

Group 2: 2011-05-16, 15:00: Karli, David and Mikael.

7. APPENDIX

7.1 Correlation Matrix

		1	2	3	4	5	6	7	8	9
1. Contextual (mean=4.37, Std. Dev=1.00)	Pearson Correlation	1,00	0,48	0,50	0,41	0,01	-0,09	0,00	0,29	0,17
	Sig. (2-tailed)		0,00	0,00	0,00	0,93	0,12	0,96	0,00	0,01
2. Integrity (mean=4.64, Std. Dev=0.89)	Pearson Correlation	0,48	1,00	0,51	0,48	-0,10	-0,06	-0,16	0,21	0,25
	Sig. (2-tailed)	0,00		0,00	0,00	0,09	0,31	0,01	0,00	0,00
3. Internet (mean=4.21, Std. Dev=0.86)	Pearson Correlation	0,50	0,51	1,00	0,50	-0,20	-0,10	-0,24	0,19	0,21
	Sig. (2-tailed)	0,00	0,00		0,00	0,00	0,11	0,00	0,00	0,00
4. Personal information (mean=4.20, Std. Dev=1.17)	Pearson Correlation	0,41	0,48	0,50	1,00	-0,28	-0,13	-0,24	0,24	0,15
,	Sig. (2-tailed)	0,00	0,00	0,00		0,00	0,03	0,00	0,00	0,01
5. Security (mean=5.29, Std. Dev=1.13)	Pearson Correlation	0,01	-0,10	-0,20	-0,28	1,00	0,08	0,20	0,08	0,12
•	Sig. (2-tailed)	0,93	0,09	0,00	0,00		0,21	0,00	0,18	0,04
6. Size&reputation (mean=5.38, Std. Dev=1.43)	Pearson Correlation	-0,09	-0,06	-0,10	-0,13	0,08	1,00	0,16	0,15	0,10
	Sig. (2-tailed)	0,12	0,31	0,11	0,03	0,21		0,01	0,01	0,12
7. Influencers (mean=5.03, Std. Dev=1.34)	Pearson Correlation	0,00	-0,16	-0,24	-0,24	0,20	0,16	1,00	-0,02	0,01
	Sig. (2-tailed)	0,96	0,01	0,00	0,00	0,00	0,01		0,78	0,85
8. Membership (mean=4.51, Std. Dev=1.43)	Pearson Correlation	0,29	0,21	0,19	0,24	0,08	0,15	-0,02	1,00	0,16
•	Sig. (2-tailed)	0,00	0,00	0,00	0,00	0,18	0,01	0,78		0,01
9. Delivery (mean=5.64, Std. Dev=0.99)	Pearson Correlation	0,17	0,25	0,21	0,15	0,12	0,10	0,01	0,16	1,00
	Sig. (2-tailed)	0,01	0,00	0,00	0,01	0,04	0,12	0,85	0,01	

The correlation matrix shows correlation coefficients, mean values and standard deviation. Mean value and standard deviation is calculated on the average of the questions included in the variables. The questions have been grouped into the variables through the factor analysis. Each variable contains two to six questions.

7.2 Survey Questions

CONSTRUCT	MEASURE	SOURCE	FACTOR
	E-handelsföretag tar ej ut extra avgifter	Cheung& Lee	(loading) 2 (0,590)
PERCIEVED	E-handelsföretag är uppriktiga mot sina kunder	Moorman et. Al	
INTEGRITY	E-handelsföretag agerar ärligt och professionellt i kontakt med kunder	Moorman et. Al	2 (0,775) 2 (0,727)
		Cheung& Lee	
PERCIEVED	E-handelsföretag har tillräcklig förmåga att hantera försäljningstransaktioner via Internet		2 (0,595)
ABILITY	E-handelsföretag har lämplig kunskap för att hantera sin verksamhet över Internet	Cheung& Lee Doney& Cannon	2 (0,545)
	Jag tror gott om de flesta e-handelsföretag Jag anser att det är tekniskt säkert att handla via Internet		2 (0,475) 3 (0,364)
TRUSTWORTHINES	Det är liten risk att stöta på problem pga. "Internet-strul"	Lee & Moray	
S INTERNET SHOPPING MEDIUM		Lee & Moray	3 (0,454)
	Det är lätt att problem med webbläsaren påverkar handel över Internet	Lee & Moray Pre-test	3 (-0,575)
THIRD PARTY RECOGNITION	Vet du vad som menas med externa certifieringssystem?	Pre-test	-
EFFECTIVENESS OF	Det Svenska rättsystemet gör att jag känner mig säker då jag handlar på Internet	PTS	1 (0,759)
SECURITY	Jag känner mig tillfreds med de lagar som reglerar den Svenska e-handeln	Cheskin	1 (0,784)
INFRASTRUCTURE	Det Svenska rättsystemet täcker de problem jag kan tänkas stöta på Internet	PTS	1 (0,776)
	Det är lätt för mig att lita på någon/något	Cheung & Lee	Index
INDIVIDUAL	Sannolikheten att jag litar på någon/något är hög	Cheung & Lee	Index
TRUST	Det händer ofta att jag litar på någon/något även då jag har lite kunskap om den/det	Cheung & Lee	Index
PROPENSITY	Att lita på någon är inte svårt	Cheung & Lee	Index
	E-handel är opålitligt	Cheung & Lee	Index
TRUST IN	Man kan inte lita på e-handel, det är helt enkelt för många osäkerhetsfaktorer	Cheung & Lee	Index
INTERNET	I allmänhet kan jag inte lita på att e-handelsföretag håller de löften de ger	Chow & Holden	Index
SHOPPING (CTIS)	Den som litar på e-handel bäddar för problem		Index
	För att handla från ett e-handelsföretag måste jag känna till företaget		6 (0,794)
BRAND	Företagets storlek spelar roll når jag handlar via Internet		6 (0,779)
AWARENESS,	Hemsidans utformning spelar stor roll for att jag ska handla		9 (0,696)
REPUTATION &	Medias uppfattning om e-handelsföretag påverkar min egen inställning		7 (0,791)
SIZE	Vänner och familj påverkar min inställning till e-handelsföretag		7 (0,755)
	Det är viktigt med säkra betalningar vid e-handel	Doney& Cannon 6 (Doney& Cannon 6 (Cramer 9 (PTS 7 (PTS 7 (Pre-test 10 (Pre-test 4 (Cheskin 10 (Castelfranchi & 4 (10 (0,406)
	Idag finns det säkra betallösningar vid e-handel		4 (0,464)
	Jag handlar inte om det inte finns externa betallösningar		10 (0,742)
PAYMENTS	Jag känner mig lika säker när jag handlar på Internet som i en fysisk butik		4 (0,321)
		Pedone	
	Det är inte farligt att lämna ut kortnummer vid betalning över Internet	Pre-test	3 (0,385)
	Jag hade handlat mer över Internet om det var säkrare betallösningar	Pre-test	5 (0,717)
	De flesta e-handelsföretag erbjuder tillräckliga garantier för att jag ska känna mig säker	Lundblad	1 (0,391)
GUARANTEES	Det känns tryggt att handla via Internet då jag vet att det är e-handelsföretaget som bär risken om något går fel	Lundblad	1 (0,534)
	Jag behöver inte vara rädd att få fel vara då jag vet att företaget ersätter mig	Lundblad	1 (0,400)
	Jag känner mig trygg med att lämna ut mina personuppgifter om det krävs för medlemskap vid e-handelssajter	Rygaard	4 (0,792)
HANDLING OF	Jag känner mig trygg med att lämna ut mina personuppgifter när jag handlar på Internet	Cheskin	4 (0,793)
PERSONAL INFORMATION	E-handelssajter där man måste vara medlem känns säkrare	Rygaard	8 (0,809)
	Om jag vet att alla som handlar har angett personnummer så känner jag mig säkrare	Rygaard	8 (0,707)
	Jag hade handlat mer över Internet om jag visste att e-handelsföretag hade striktare säkerhetsrutiner	Cheskin	5 (0,801)
		DTC	E (0.401)
	Det är viktigt med säkra leveranser vid e-handel Det är liten rick att vereme förstöre på vägen	PTS Pre-test	5 (0,491)
DELIVERY	Det är liten risk att varorna förstörs på vägen		3 (0,686)
DELIVERY	Spårbar frakt gör det säkrare att handla över Internet	DHL	9 (0,482)
	Om jag köper något på Internet känner jag mig säker på att jag får det jag beställt	Pre-test	3 (0,520)
	Jag hade handlat mer över Internet om det var säkrare leveranser	Pre-test	5 (0,706)
	Ålder		•
OTHER	Kön		-
	Har du någonsin handlat via Internet		-

7.3 Focus Group discussion questions

- Vilka är ni? Hur ofta handlar ni på Internet? Vad handlar ni i så fall på internet?
- Vad är det främsta skälet till att man handlar på Internet? Vilka är de främsta fördelarna?
- Vad tycker ni är viktigt för att ni ska känna er säkra när ni handlar på Internet?
- Vilka är nackdelarna med att handla på Internet?
- Om man måste lämna ut personnummer och vara medlem för att få handla på en sida, gör det att ni känner er tryggare eller är det en negativ sak att man måste ange personlig information?
- Tror ni att det är skillnad mellan unga och äldre människors inställning till e-handel? Varför?
- Tror ni att den avancerade tekniken som finns har påverkat hur ni är som personer?

7.3 In-depth interview questions

Google

- Ser ni på Google någon skillnad i beteenden mellan unga respektive äldre internetanvändare?
- Jobbar ni aktivt för att skapa tillit hos "era användare" samt för att förstå vad det är som driver denna utveckling?
- Tror du att det faktum att man växer upp med avancerad teknik har stor inverkan på hur man är som person och i så fall hurdå? (t.ex. Rörande tillit och tilltro till omvärlden.)
- Tror du att den ständiga uppkopplingen och tekniska dimensionen gör att vi litar mer på våra medmänniskor och samhället omkring oss eller tror du snarare att det skapar ytterligare en dimension av osäkerhet? Något vi ej kan kontrollera fullt ut.
- Vad tänker ni spontant är viktiga faktorer rörande konsumenters tillit till Internet och kanske specifikt till e-handel?
- (Hur) Arbetar ni aktivt med att förstå och utveckla tillit?

Tradera

- Vad tänker ni spontant är viktiga faktorer rörande konsumenters tillit till e-handel?
- Arbetar ni aktivt med att förstå och utveckla just tillit hos era medlemmar?
- Ser ni några direkta skillnader i beteende hos äldre och unga medlemmar?
- Är det svårare/lättare att rekrytera unga människor i 18/19 årsåldern än äldre?
- Tror du att det faktum att man växer upp med avancerad teknik har stor inverkan på hur man är som person och i så fall hurdå? (t.ex. Rörande tillit och tilltro till omvärlden.)
- Tror du att den ständiga uppkopplingen och tekniska dimensionen gör att vi litar mer på våra medmänniskor och samhället omkring oss eller tror du snarare att det skapar ytterligare en dimension av osäkerhet? Något vi ej kan kontrollera fullt ut?