

St. Petersburg University
Graduate School of Management

Master in Management Program

DETERMINANTS OF CUSTOMER SATISFACTION ON CHINESE AND
RUSSIAN M-COMMERCE MARKETS

Master's Thesis by the 2nd year student

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Concentration — Marketing

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St. Petersburg

2018

ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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(Подпись студента)

24.05.2018



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I, Sharko Olga, second year master student, program “Management”, state that my master thesis on the topic “Determinants of customer satisfaction on Chinese and Russian m-commerce markets”, which is presented to the Master Office to be submitted to the Official Defense Committee for the public defense, does not contain any elements of plagiarism.

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24.05.2018



АННОТАЦИЯ

Автор	Ольга Шарко
Название ВКР	Детерминанты удовлетворенности потребителей на российском и китайском рынках мобильной коммерции
Образовательная программа	ВМ.5669.2016 Менеджмент
Направление подготовки	Маркетинг
Год	2018
Научный руководитель	Старший преподаватель кафедры маркетинга, Ольга Николаевна Алканова
Описание цели, задач и основных результатов	<p>В данной работе исследуются детерминанты удовлетворенности потребителей в области мобильной коммерции для российских и китайских потребителей. Целью исследования является адаптация модели оценки удовлетворенности китайских и российских потребителей на рынке мобильной коммерции. Задачами данного исследования являются: выявление ключевых характерных и наблюдаемых различий на российском и китайском рынках мобильной коммерции; выявление академических пробелов в существующей литературы по данной теме; анализ основных факторов, влияющих на удовлетворенность потребителей в России и Китае; разработка рекомендаций о том, как российские и китайские мобильные-вендоры могут повысить удовлетворенность клиентов как для российских, так и для китайских потребителей.</p> <p>Автор разработал модель удовлетворенности клиентов, которая включает в себя факторы, специфичные для рынка мобильной коммерции, а также включает дополнительные параметры, такие как логистика (доставка), принятие технологий, доверие и культурные измерения. Модель эмпирически протестирована на двух выборках по России и Китаю. Результаты показывают, что, прежде всего, культура оказывает влияние на доверие и удовлетворенность клиентов; поэтому модели отличаются по эффекту факторов и их значимости. Также доказано, что принятие технологий влияет на доверие к поставщику «мобильного магазина», тогда как культурные особенности опосредуют его влияние на удовлетворенность клиентов. Автор подчеркивает, что более высокое доверие китайских клиентов к мобильной коммерции и, как следствие, более высокий эффект удовлетворенности клиентов, чем в России, может быть результатом более быстрого развития отрасли и лучшего принятия технологий из-за особенностей культуры (что соответствует предположениям предыдущих исследований).</p> <p>На основе теоретических результатов были разработаны рекомендации для российских компаний мобильной коммерции на китайском и российском рынках.</p>
Ключевые слова	поведение потребителей, удовлетворенность клиентов, м-коммерция, Россия, Китай, культурные измерения, доверие, принятие технологий

ABSTRACT

Master Student's Name	Olga Sharko
Master Thesis Title	Determinants of Customer Satisfaction in M-Commerce: Investigation of Chinese and Russian Customers
Educational Program	BM.5669.2016 Master in Management (MiM)
Main field of study	Marketing
Year	2018
Academic Advisor's Name	Senior Lecturer of Marketing Department, Olga N. Alkanova
Description of the goal, tasks and main results	<p>This paper investigates determinants of customer satisfaction in m-commerce for Russian and Chinese customers. The goal of the research is the adaptation of the model for customer satisfaction evaluation of Chinese and Russian customers on m-commerce market. The tasks of this research are: to identify key characteristic and observables differences in Russian and Chinese m-commerce markets; to identify key limitations of current existing literature on the topic; to analyze what are the main factors affecting customer satisfaction in Russia and China; to develop recommendations how Russian and Chinese online vendors may increase the customer satisfaction for both Russian and Chinese m-users.</p> <p>Author develops a model of customer satisfaction that incorporates factors specific to m-commerce as well as include additional parameters such as logistics (time delivery), technology acceptance, trust and cultural dimensions. The model is empirically tested on two samples from Russia and China. The results show that, first of all, culture had an impact to the trust and customer satisfaction; therefore, the models are different in factors' effect and significance. In addition, it is proved that technology acceptance has an effect on trust to m-vendor, whereas cultural specifics mediate its effect on customer satisfaction. The author highlights that higher trust of Chinese customers to m-commerce and, consequently, higher effect to the customer satisfaction than in Russia may be a result of faster development of the industry and better technology acceptance due to cultural specifics (which fits the prior research assumptions).</p> <p>Based on the theoretical results, the recommendations are developed for Russian m-commerce companies on both Chinese and Russian markets.</p>
Keywords	consumer behavior, customer satisfaction, m-commerce, Russia, China, cultural dimensions, trust, technology acceptance

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Introduction

The development of the Internet and the emergence of e-commerce and m-commerce caused significant changes in the economy and led to a shift in the traditional matters of economic and marketing theory and practice. Information and communication technologies, as they are motive force of globalization and internationalization, cover distance and time. Nowadays, the distance and the borders between counterparties almost disappear. Internet technologies, including standards (time, speed) of data transfer, are a universal environment of business information exchange and, moreover, they set business rules and principles in the context of online commerce.

In a broad sense, m-commerce is an entrepreneurial activity that implements commercial transactions with the use of mobile phone of data exchange. Moreover, m-commerce embraces ways of interaction between a online buyer and online seller (commercial transaction), carried out with the help of global Internet (information networks), and accompanied by the transfer of rights to use a product (i.e., the process of sale is accompanied by an electronic document and an operation of electronic payment systems) (Savchenko 2015).

The modern customer is highly active in its market behavior, becoming more and more legible in the choice of the goods. The customer has high demands on quality, especially to those attributes, that emphasize the personality characteristics of the customer. In addition, in term of m-commerce, the customer is tied up to smartphones and tablets that are the instruments for making the purchase and most of the time these “instruments” are with the customers whenever they go. This, in turn, leads to the fact that the cognitive components of consumer behavior, which influence the formation of ideas about the product, search, processing, information evaluation, the choice of the goods, the process of making the purchase as a whole, are changing and are especially important for the study of consumer behavior as nowadays customer does not need to apply efforts to make a purchase – he always has “a ship in his pocket”. Moreover, in modern conditions of high uncertainty of marketing activities of market entities, the study of consumer behavior online and the factors contributing to their choice of goods at all stages of the purchase process has become more and more meaningful for the stability market entities and their risk-reducing.

Taking into the consideration information above, it is known that economic relations on the Internet, as well as the Internet itself, are developing very fast; however, the relevant scientific works on these subjects are scarce. As it stands now, modern companies expand online from China to Russia (and vice versa), and Russian companies meet the online competition inside the country, but this phenomenon has little in terms of academic research to turn to, to better understand their new target customers. Moreover, during the last 5 years, Russian start-ups are actively developing on the Asian markets (with the Skolkovo) – Beijing, Xi'an, Shanghai, Singapore, Hongkong, and others. Therefore, there is a great necessity of the understanding the consumer behavior of Asian

customers including the identification of the factors affecting the customer satisfaction in Asia.

With the increased globalization in the m-commerce space, with companies like Alibaba and Amazon.com already in most countries of the world, companies opening up in new markets needs to understand the differences in their new customer base from what they are used to and the differences in satisfaction levels. Studies about customer satisfaction that were carried out 5-7 years ago now are already irrelevant because with the constant development of the online environment new factors and variables appeared that have a significant meaning for the determination of customer satisfaction level but were never included in the existing models. Thus, it can be concluded that nowadays there are no model, explaining factors affecting the customer satisfaction, that could correspond to all requirements of the customers preferences. Moreover, no recent research has been found that surveyed the differences of factors effects on customers satisfaction including cultural variable. Therefore, **the research gap** of this study is:

- The lack of customer satisfaction model that could include all factors, considering cultural variable, that corresponds to the requirements of m-commerce environment in the context of emerging markets

To achieve this goal **two research questions** could be posed:

RQ 1: What are the main factors affecting customer satisfaction in m-commerce market?

RQ2: Is there a difference between Chinese and Russian customers satisfactions models?

The **goal of the research** is the adaptation of the model for customer satisfaction evaluation of Chinese and Russian customers on m-commerce market.

Research Tasks:

- To identify key characteristic and observables differences in Russian and Chinese m-commerce markets;
- To identify key limitations of current existing literature on the topic;
- To analyze what are the main factors affecting customer satisfaction in Russia and China;
- To develop recommendations how Russian and Chinese online vendors may increase the customer satisfaction for both Russian and Chinese m-users.

The results presented in this research will help Russian companies to locate their position against competitors, pin point their weak points and determine which characteristics will improve the customer satisfaction and which characteristics are necessary to provide an effective and efficient content of the mobile application to meet the needs of a diverse population of users.

The structure of the thesis is the following. Firstly, the e- and m-commerce markets and customer satisfaction theories are analyzed to build a theoretical framework of the study. As m-commerce often considers as a part of e-commerce in this study when overviewing the Chinese and

Russian markets, these industries will be analyzed together. Secondly, empirical part is provided. It consists of the methodology part where all methods are described in detail. Next, third part includes the data analysis with the primary results. Finally, discussion of the findings with the answers of the research questions will be conducted, theoretical contribution, practical implications, where recommendations for companies are developed and limitations and directions for further research are presented.

1. Chapter one: Literature review

1.1. The overview of Russian e-commerce and m-commerce markets

The e-commerce and m-commerce markets are currently one of the most attractive business lines in Russia and abroad. It is impossible to talk about the m-commerce market without the mentioning of the e-commerce market because they exist together as most vendors that create the mobile application always have a website allowing customers to choose whether they may buy via website or via mobile application. It is not surprising that e-commerce is being considered today in many countries of the world as one of the most important mechanisms for providing alternative employment and developing private entrepreneurship (Gorshenina 2010). For Russia, this is especially important, since according to the Doing Business report of the World Bank, in 2015 it ranks 62 among 189 countries in the rating of favorable business conditions.

In the country section, according to a number of analytical agencies, the top 10 countries in terms of the number of Internet users (fixed and mobile) include China - 710 million, India - 350 million, the USA - 277 million, Japan - 110 million, Brazil - 110 million, the Russian Federation - 84 million, Germany - 72 million, Indonesia - 71 million, Nigeria - 70 million, Mexico - 59 million (Sedyx 2016).

According to the German research company GfK (AKIT 2017), 84 million people use Internet in Russia today, 56.6 millions of whom use the Internet from mobile devices (Figure 1). This is a potential Russian audience of online stores, both local and foreign.

The growth of the Internet audience in the country, following the worldwide trends, is mainly due to mobile Internet subscribers: penetration of fixed broadband access in 2016 in Russia, according to GfK, is 52%, and mobile - 66%.

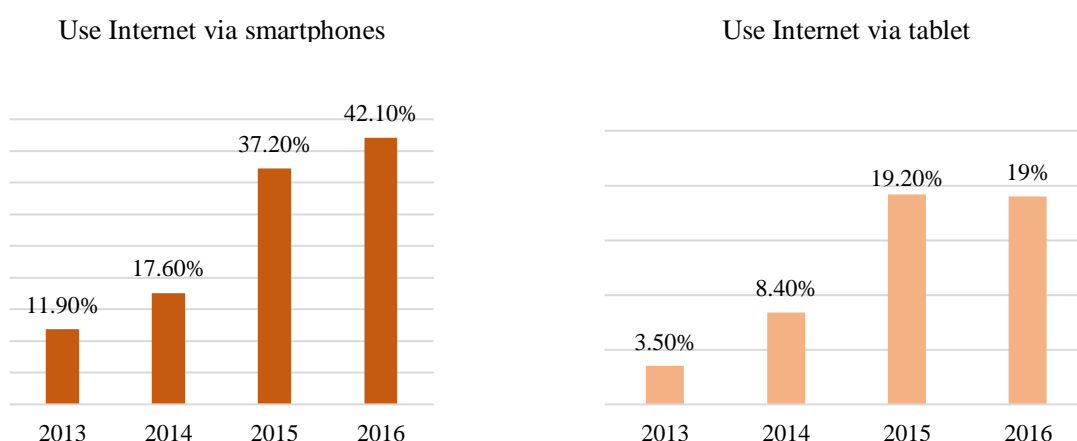


Figure 1. The different means to use Internet

Source: based on (AKIT, 2017)

In 2016, the Internet market in Russia grew by 31% compared to 2015 and amounted to 920 billion rubles, while the Internet advertising market – by 20%.

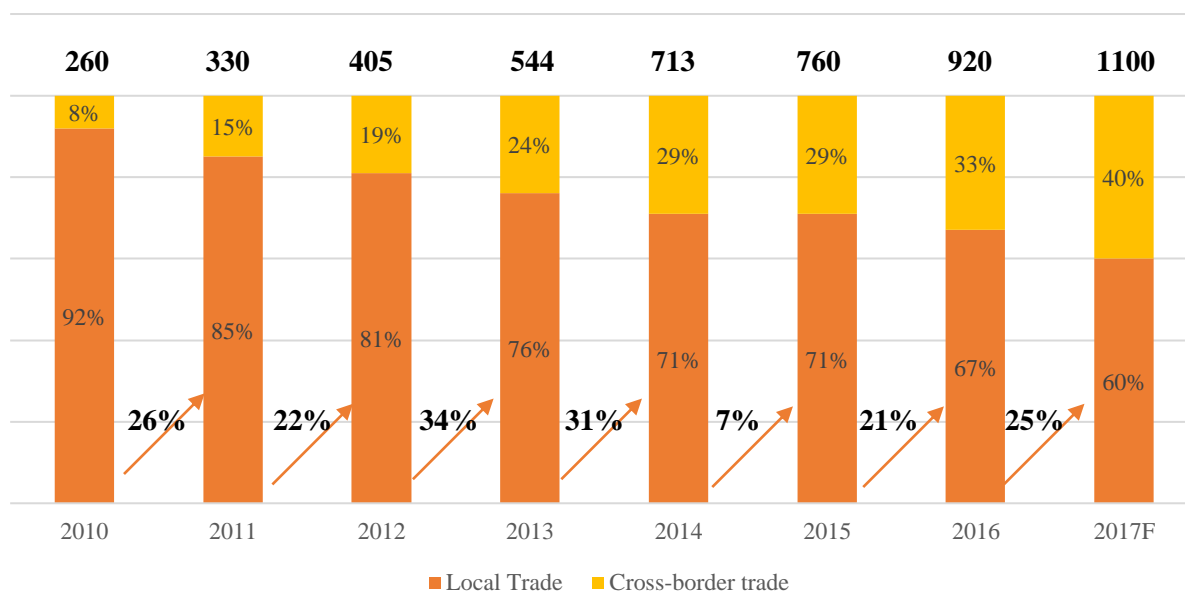


Figure 2. The volume and dynamic of Internet market in Russia, in billions of rubles and %, 2013-2017

Source: based on (AKIT, 2017)

M-commerce in Russia continues to develop rapidly, and therefore the m-commerce market is in the same trend. This is facilitated by the increasing popularity of intranet trading and psychological perception that internet and intranet purchases are cheaper than traditional ones (AKIT 2017). At the same time, a number of restraining factors that prevent the market from growing at full strength have been preserved. These are the existing bans on the remote sale of drugs, alcohol, and the continuing legal collisions in the sale of jewelry, and the high cost of acquiring for online stores, etc. In addition, the most popular method for delivery is the cash on delivery.

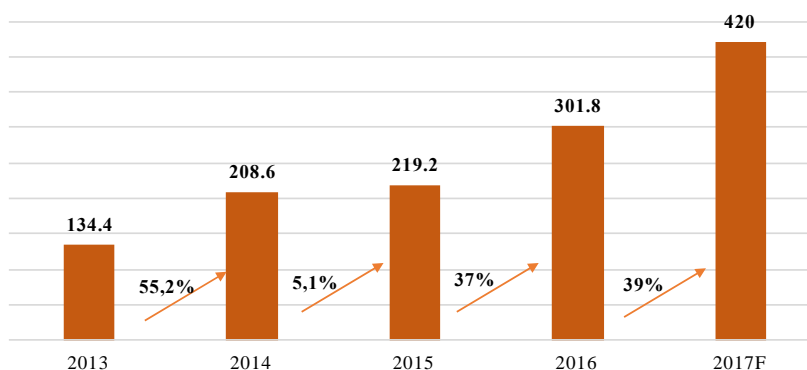


Figure 3. The volumes of cross-border trade (import), in billions of rubles, 2013-2017

Source: based on (AKIT, 2017)

Moreover, cross-border trade continues to outstrip the local market in terms of growth rates. If the imbalance in the business environment continues, foreign companies will completely conquer Russian online commerce markets.

At the same time, the volume of purchases in Russian online stores last year amounted to 540.8 billion rubles (an increase of 7.2% compared with 2015). According to the forecasts of the experts of the Association of Internet Trade Companies, the volume of electronic commerce in the Russian Federation in 2018 will grow to 950 billion rubles.

However, the decline in real incomes of the country's population, the decline in purchasing power, the growth of foreign currency, high inflation – all these factors may lead to a decrease in the volume of the e-market.

Currently, the share of e-commerce in the total volume of trade in Russia is about 2% (and the share of m-commerce is even lower that makes difficult the determination of it), while among the generally recognized leaders – the United Kingdom and the United States - it exceeds 10%. According to the forecast of Cushman & Wakefield, the online market in Russia will grow by 20-30% annually and by 2020 its share will be 6-8% of total sales (Cushman & Wakefield 2017). The main constraining factors for the further development of Internet trading in Russia are infrastructure and logistics (Shabanova and Zuzina 2016). Therefore, it can be concluded that the Russian Internet market is still not completely filled.

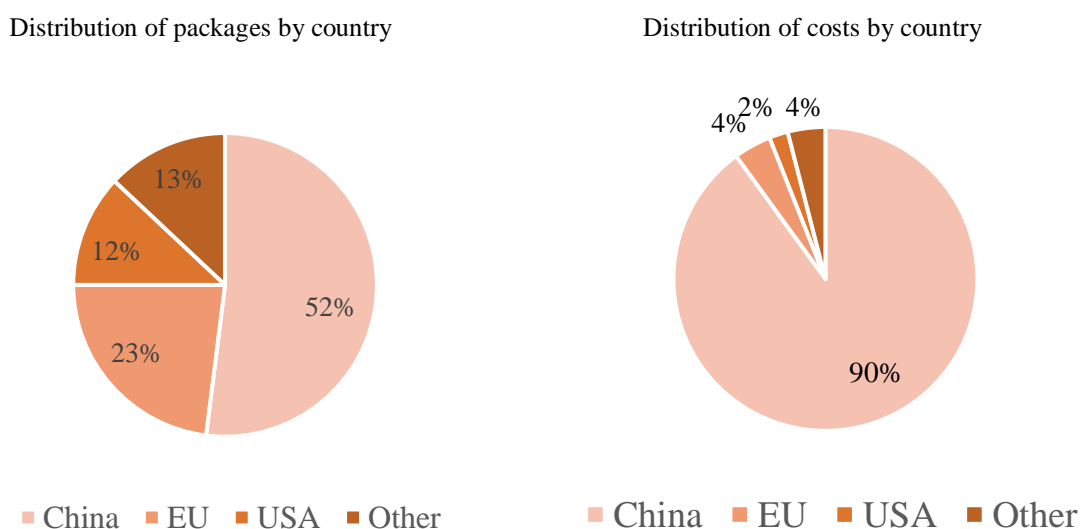


Figure 4. The distribution of packages and costs by country in %, 2016

Source: based on (AKIT, 2017)

In conditions of economic crisis, it is much more profitable for Russians to buy goods in Chinese online stores than in Russian ones. The reason for this is the prices for goods, as well as a fairly meager range of goods and their deficit in domestic online stores. The difference in price

persuades Russian customers to make purchases in Chinese online stores, especially in the conditions of a permanent crisis. Another reason why foreign shops are popular among Russians is that many goods are very difficult to access in local online stores. Another reason for the popularity of foreign online stores is the current customs duties.

In recent years there has been a noticeable increase in the popularity of Chinese online stores among Russians. According to Alibaba statistics, as of this year, the number of registered users of AliExpress in Russia has exceeded 5 million people (SimilarWeb 2017). Every day through this site goods are sent for at least \$ 2 million to the Russian Federation; on holidays, the number is doubled (Hongze 2013). Russian customers in China's online stores often purchase clothes and shoes, children's products, mobile phones and tablet computers. It should be noted that in Russia there is an imbalance in the development of the e-commerce market by region. More than 60% of online stores are concentrated in Moscow and St. Petersburg, where about 15% of the Russian population lives.

The development of cross-border e-commerce and m-commerce directly stimulates the development of the logistics industry of China and Russia. In China, apart from the large Taobao and Alibaba companies, the Heilongjiang Province (Harbin) becomes a major e-commerce center between China and the Russian Federation. The length of the border of Heilongjiang Province with Russia is 2.291 km, and 15 checkpoints located on it became the main condition for the rapid development of local electronic commerce. These changes are reflected in the number of parcels. Heilongjiang is actively developing leading enterprises and a platform of cross-border e-commerce with Russia, a logistics center has been created, through which almost 30 thousand orders can be issued daily, the services of which will cover the entire territory of Russia. In 2016, more than 300 million parcels were sent monthly. The city of Harbin has turned into an air logistic channel for e-business with Russia.

The policy to regulate cross-border e-commerce between China and Russia has not been finalized yet. One of the drawbacks in the e-commerce between China and Russia is a "raw" legislative base. However, in 2016, China planned to issue the first law on electronic commerce. This law will provide the ensuring of an honest trading atmosphere, quality control of goods and services, as well as protecting the interests of customers and intellectual property rights. The sale of counterfeit goods seriously undermines the reputation of Taobao and other participants in China's e-commerce. This problem poses a potential threat to e-commerce between China and Russia. Experts emphasize that Taobao and other companies are also victims, not beneficiaries from selling counterfeit goods. Enterprises need to closely monitor offenses on their own e-commerce platforms and continue to improve the technical base, improve training and work mechanisms, and strengthen the struggle counterfeiting.

Another important obstacle for cross-border trade between China and Russia is the issue of payment compensation. Russian customers rely on cash payment, the level of distribution of online payments is relatively low. In 2015, only 44% of Russian Internet users paid for their purchases online. This is due to the huge risk of credit fraud, as well as the underdeveloped and functioning electronic payment system online. The company "Yandex. Money" immediately began to use the possibility of online payments for the development of its operations in China. The company "Yandex. Money" has been working closely with Chinese partners since 2013. The electronic payment service has connected an online payment service for more than 40 Chinese online stores, among which are AliExpress, the largest Chinese online store of Alibaba. Do not stay behind other Russian electronic payment systems. For example, QIWI actively cooperates with Chinese online stores. Today, the electronic purse Visa QIWI Wallet can be paid in all major Chinese online stores, including AliExpress, Lightinthebox, TinyDeal and Dinodirect (Hongze 2013). It is assumed that such cooperation will promote the development of the application of various methods of electronic payments in bilateral trade between enterprises of countries.

In addition, currently the competition among e-commerce companies is becoming more and more fierce every day. At the same time, in the end, customers themselves benefit from this. The low price is the main means of fighting for customers used by China's international companies, including many Chinese businessmen, led by Alibaba. However, in the age of information technology, users are carrying out large orders, customers are paying more attention to service quality, while Russian e-commerce companies rely on local service benefits more diversified in this regard, through the development of services to compensate for the lack of competition in the market. Among them, the online store Lamoda differs from the usual e-commerce company: after receiving the goods, the customer has 15 minutes to decide whether to buy the product. You can choose to pay in cash or by credit card. This model Lamoda is recognized as successful in Russia, and Ozon and Wildberries also offer this service. In this regard, Alibaba and other Chinese giants in the field of electronic commerce proposed to speed up the construction of infrastructure facilities, improve services and pay increased attention to the development of customer demand mechanisms, technological standards, etc., and to seek cooperation in the area of cross-border e-commerce to expand business in Russia and help Russian enterprises sell their products in China and other parts of the world. For example, China's second largest e-commerce platform, Jindung (JD), has already established contact with a large online store, Ulmart; Russia will be the first foreign market for JD. The Russian-language website JD not only provides Russian buyers with a large selection of Chinese high-quality goods, but also such after-sales services as return and exchange of goods within 30 days. At the same time, JD signed a cooperation agreement with the Russian courier delivery service "SPSR Express", which has offices in 200 major cities of Russia,

has more than 1000 delivery points. This gradually changes the image of China in the eyes of world customers.

With the rapid growth of cross-border e-commerce, foreign warehouses have already become the inevitable trend of cross-border logistics in the field of e-commerce. Nowadays, Chinese international logistics companies in Russia are planning to create warehouses for circulation of goods in order to reduce cross-border costs of e-commerce companies for logistics (Hongze 2013). With a high level of the border logistics system, the e-commerce company will be able to completely solve the transport problem, achieve maximum turnover, increase the speed of capital turnover and significantly improve the efficiency of online shopping centers in Russia; The time of delivery of parcels to Russia will take from 5 to 10 days.

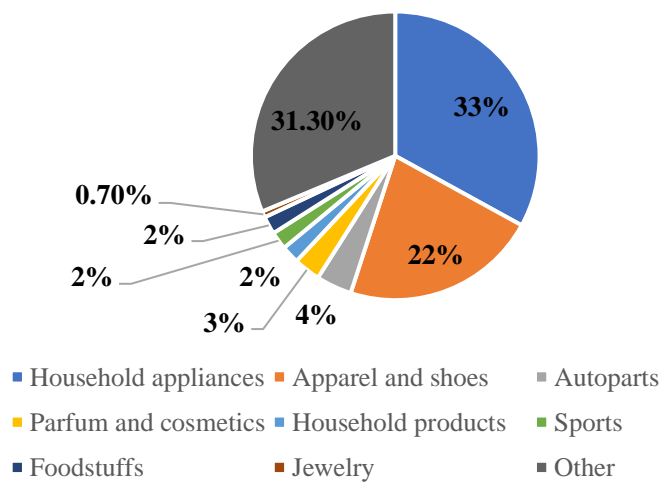


Figure 5. Distribution by commodity categories in the local market

Source: based on (AKIT, 2017)

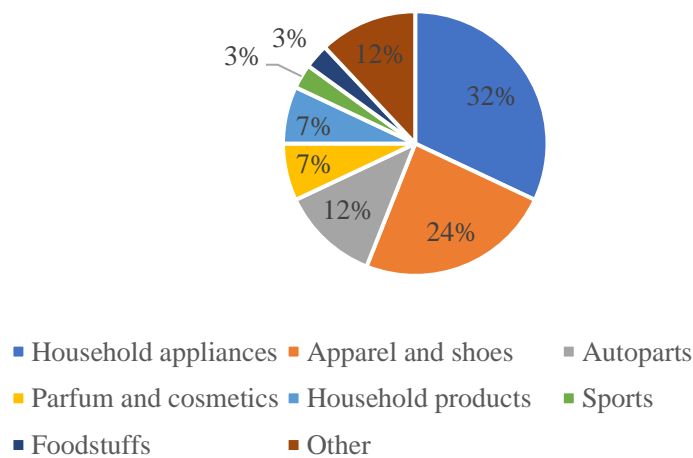


Figure 6. Distribution by commodity categories in the cross-border market

Source: based on (AKIT, 2017)

As it was mentioned above, the primary commodity category for Russian to order online are household appliances and apparel.

Overall, it may be stated that the electronic trading market is rather weak compared to the traditional market, there are many problematic issues in its functioning: lack of quality delivery services; the moral unpreparedness of Russians to buy in online stores, the lack of Internet access in some regions of Russia, the lack of transparent Internet retailers (Astachova and Wang 2017). The infrastructure of Internet commerce, as well as legislative regulation in the issues of customs control and taxation of international retailers, require significant development.

In this paper, as it was stated in the introduction, there will be a comparison of factors affecting customer satisfaction among both Russian and Chinese customers; therefore, next paragraph will be dedicated to the analysis of the Chinese e- and m-commerce markets.

1.2. The overview of Chinese e-commerce and m-commerce markets

China is a huge market; its residents are the most active online users in the world. In China, about 600 million gadgets that allow a person to make purchases online. In the concrete, almost each of them was used to make a purchase. In other countries, this indicator is not so high.

Cross-border e-commerce is a consequence of the growing importance and proximity of the Chinese to retail online trading. Since mobile payments have become commonplace in China, Chinese customers are getting more and more used to buying goods on the Internet. According to a study by the Ministry of Industry and Information of China, in 2016 in China, 469 million users have already used mobile payments, which is 31% more than in 2015 (Eurasia Development 2017). Mobile payment systems, such as Alipay (支付宝) and Tenpay (财付通), purse WeChat, allow buyers to easily purchase products using QR-code technology from any mobile device.

Annually, the National Bureau of Statistics of China (NBS, 中华人民共和国国家统计局) publishes data on retail sales of customer goods and services. According to NBS, in 2016, online retail sales (year-on-year) increased much more than the total retail offline sales of customer goods and services by 26.2% and 10.4%, respectively.

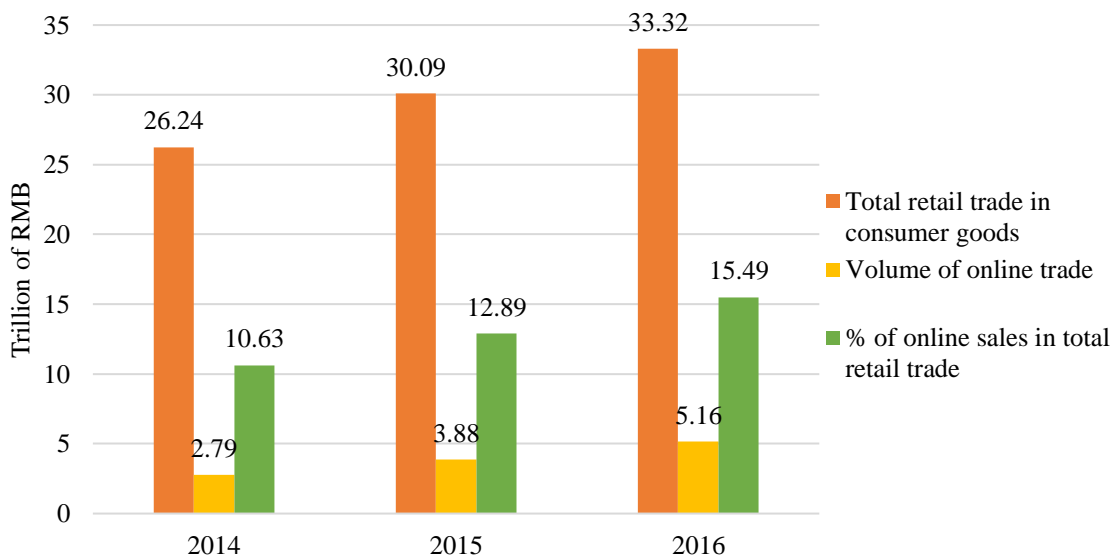


Figure 7. The total volume of retail trade and online retail share in 2014-2016

Source: based on (AKIT, 2017)

The share of online sales in the total amount of sales of customer goods and services has grown significantly. In 2014, it was 10.63% for retail sales on the Internet at 2.79 trillion RMB. And already in 2016, the share increased by more than 15%, while the volume of retail sales on the Internet almost doubled - to 5.16 trillion yuan. Now, let's analyze the reasons for the growing success of Chinese e-commerce.

Since cross-border e-commerce is part of Chinese e-commerce, it is essential to understand the reasons for its success in recent years to assess the potential of cross-border e-commerce in China. Many people believe that Chinese sites are just copies of popular western sites, but this is far from the reality (Eurasia Development 2017). Especially often the site of Alibaba, as another retailer of B2C, is compared to Amazon. Alibaba Group (阿里巴巴集团) is an excellent example of the vast and unique volume of the Chinese e-commerce market. In fact, Alibaba's original Alibaba.com platform (for global trade), as well as 1688.com, the Alibaba platform for sales agents, wholesalers, retailers, manufacturers, small and medium enterprises from China, act as wholesalers in the B2B segment. In turn, Tmall (天猫) is the business unit of Alibaba, whose business model is B2C's retail platform, and Taobao (淘宝) is China's leading C2C platform, which can be called the biggest success of China e-commerce.

In September 2017, Taobao visited more than 1 billion 580 million users; it is the sixth on the website's visit to the PRC, reports SimilarWeb (SimilarWeb 2018). In the category of "shopping - general merchandise" Taobao is the most visited site in China. Another indicator of the global dominance of Chinese e-commerce is that Chinese Taobao has become the third of the

five most visited electronic trading platforms in the world. For example, the best Russian company in the online market - ozon.ru, is on the 47th position in the world ranking.

Rank	Website	Category	Change	Avg. Visit Duration	Pages / Visit	Bounce Rate
1	amazon.com	Shopping > General Merchandise	=	00:06:51	9.96	35.04%
2	ebay.com	Shopping > General Merchandise	+1	00:06:08	7.56	39.18%
3	taobao.com	Shopping > General Merchandise	-1	00:06:08	6.03	38.08%
4	tmall.com	Shopping > General Merchandise	=	00:04:32	6.89	49.08%
5	aliexpress.com	Shopping > General Merchandise	=	00:08:06	10.13	25.44%
47	ozon.ru	Shopping > General Merchandise	+3	00:05:10	5.05	45.90%

Figure 8. Taobao rating among five most visited electronic trading platforms

Source: (SimilarWeb, 2018)

Therefore, Taobao (both website and mobile application) is an excellent example for demonstrating the five main factors of the growing success of Chinese e-commerce:

1. *Low costs for both buyers and sellers.* Thanks to free announcements (at least for the first time) and without additional transaction fees on the platform between buyers and sellers, Taobao's low-cost strategy helped to successfully stop the development of eBay in China. This competitive advantage led to the fact that sellers wanted to create shops precisely on Taobao, which increased the range and attracted new customers to the platform.
2. *Convenient website functions.* Taobao is the most visited trading site in China and is among the top three in the world. This success was achieved thanks to the convenient services of the website (Eurasia Development 2017). A feature of this functionality is the introduction of the instant messaging tool Aliwangwang (阿里旺旺), in which buyers can communicate with sellers in real time to get information about the product of interest.

In addition, the mobile application has an intuitive interface. Looking through the different categories on the left, users can also see the most popular offers, highlighted in the middle.

3. *Active promotions.* The third key factor in the success of the site Taobao can be called a powerful advertising campaign. Taobao uses special promotions to increase sales throughout the year. An excellent example is November 11 or "Bachelor Day." Initially, it was celebrated by young and lonely Chinese, and now it has turned into the biggest worldwide sales day. Having arranged an advertising action on November 11, 2016, Alibaba earned 120.7 billion yuan (17.73 billion US dollars).

Moreover, not only promotions but also strategic alliances contribute to the promotion of the site. In April 2013, Alibaba announced a major investment in Sina Weibo¹ (新浪 微博) of \$ 586 million. Since August 2013, Weibo was launched for Taobao, which led to an increase in Internet traffic on China's largest e-commerce site, linking Sina Weibo's customer accounts with their Taobao accounts.

4. *Creating your own logistics network.* Since May 2013, Alibaba Group has started cooperating with several Chinese logistics companies to develop its own logistics network called Cainiao Network (菜鸟 网络). Sellers on Taobao should cooperate with the logistics companies of this network to ensure fulfillment of the promise to deliver the goods within 24 hours to anywhere in China. By 2016, 90% of Taobao companies signed a contract with the Cainiao network, which allowed the company to supply an incredible 42 million packs a day. According to Alibaba's annual report for 2016 (United States Securities And Exchange Commission 2016), 1.7 million people work at such 180,000 delivery stations to carry out such colossal volumes.

5. *Corporate cooperation with banks.* Partnership with major Chinese banks, such as the Bank of China (中国 银行) and ICBC (中国 工商 银行), increases the trust of users. Thanks to this cooperation, the transactions that take place on Taobao have become safer and more reliable. Moreover, since Alibaba anticipated the potential of cross-border e-commerce in advance since 2012 they have started accepting international credit cards. Alibaba with its website TMall Global is the leader of cross-border e-commerce in China.

These factors can be applied to other successful e-commerce websites and mobile applications since they are configured identically, but with different targeting. Unlike internal online commerce, where TMall and JD.com (Jingdong, 京东) clearly dominate the overall share of the B2C retail market in 2016 at 83.7%, China's cross-border e-commerce is highly fragmented, and it's impossible to name a clear market leader.

¹ Chinese microblogging service launched by Sina Corp on August 14, 2009. Being a kind of hybrid between Twitter and Facebook, the service is one of the most popular websites in China

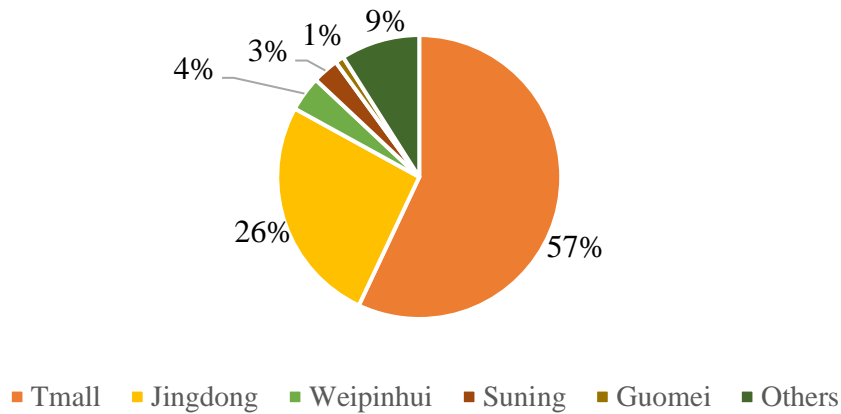


Figure 9. The market share of B2C platforms in China, 2016

Source: based on (AKIT, 2017)

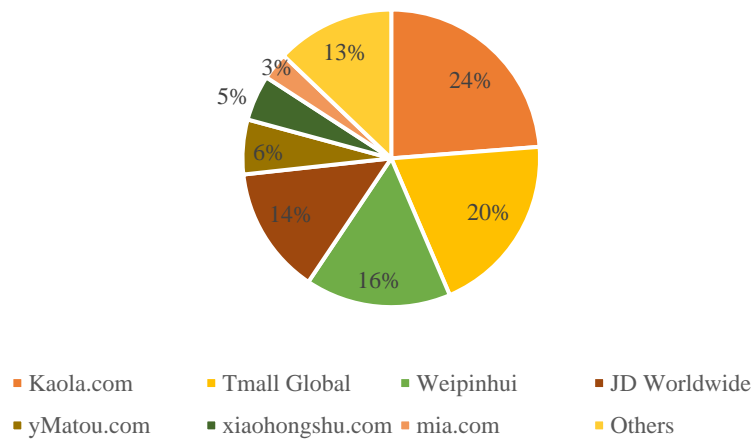


Figure 10. The market share of cross-border e-commerce in China, 2016

Source: based on (AKIT, 2017)

Despite the favorable conditions for online commerce in China as a whole, the high demand for cross-border e-commerce and m-commerce can be explained by two indicators: first, from a customer point of view, the constantly growing middle class in China and, therefore, a higher standard of living that allows customers spend more money on the necessary foreign products. Among luxury brands, there is a high demand for children's and mother's products, as Chinese customers are concerned about security and do not trust domestic producers. Therefore, for example, "dm-drogeriemarkt," the leading pharmacy store in Germany, is one of the largest sellers of TMall Global (Online sales of DM successfully started in China 2017).

Secondly, from the point of view of the seller, the platforms set favorable conditions for foreign retailers so that they can distribute their products. "The big advantage of foreign brands located on cross-border e-commerce (and m-commerce) platforms, such as TMall Global, is that in the case of TMall Global, they do not need to show any actual presence in China" (Eurasia

Development 2017). In fact, the only thing they need to do is prove that they have a registered trademark abroad and provide a certificate of origin that shows that the products are genuine. It also encourages foreign brands to create stores on Chinese cross-border e-commerce platforms.

The fact that China has become the largest online commerce market in the world shows recent data published by iiMedia in August 2017 (Data Analysis 2017). Along with huge domestic e-commerce, cross-border transactions in 2016 increased by 23.5% to 6.3 trillion yuan compared to 2015, the report said. Despite the fact that the growth will decrease slightly, the forecast for 2017 so far shows an impressive volume of transactions of 7.5 billion yuan.

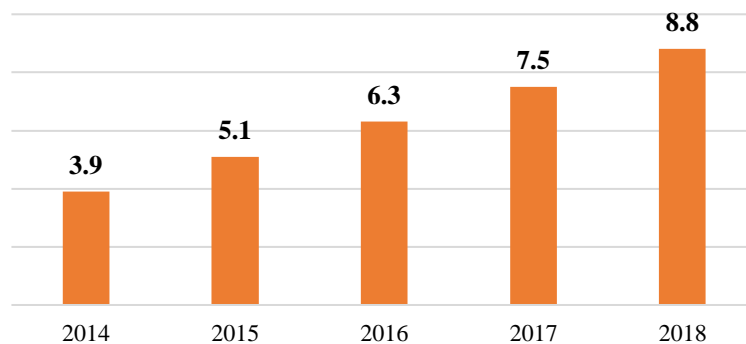


Figure 11. The volume of transactions in cross-border e-commerce in China, 2014-2018, trillion RMB

Source: based on (AKIT, 2017)

If the forecasts are correct, Chinese cross-border e-commerce transactions will be doubled only for four years with an average CAGR of 22.65%. These figures show the vast potential of cross-border online commerce in China.

Overall, comparing the Russian and Chinese e- and m-commerce markets, it is clearly that Chinese market is more saturated with different websites and mobile applications. Moreover, the volume of the supply of the goods in the Chinese markets is much higher than in Russia. All this, clearly, leads to the assumption that Chinese customers are more used to mobile applications to the purchase of the goods (therefore, this statement will be discussed again lately from the perspective of the literature). In addition, above there is discussed the attitude of the Russian customers to the products of different countries and there is evidence that Russian prefer buying abroad, preferably in China what also add interest to this paper. However, there are little information about the Chinese preferences in products depending on the country, and this is why it will be discussed later in the next chapter of this master thesis, and this question will be raised in the questionnaire for the Chinses market.

The following step will be the analysis of the current theories that help to evaluate the factors most influencing to the customer satisfaction.

1.3. Customer satisfaction theoretical frameworks

The necessity for identification of the challenges and problems with customer satisfaction in e-commerce (and its narrower trend – m-commerce) and methodology, included to its estimation, plays a crucial role in determination of not only how to improve services provided by B2C online organizations but also how to increase the sales of these B2C online organizations. Customer satisfaction takes the central role in the prediction of the future actions of the customers as its level is determined by the experience the customer got during the purchase of some goods and therefore it has a pivotal meaning in the extracting customer responses in the long-term and responsible for the possible repeated purchases (Grenroos 1991). Thus, both scholars and business practitioners had a great interest in fulfilling customer needs to go deeper into the understanding of the purchase behavior.

First studies on customer satisfaction are made by Cardozo (1965) and Howard and Sheth (1969). Studies of these scholars were dedicated to the investigation of the effect and influence of customers' expectations to the satisfaction level. Basically, these studies were the first point of the increase of scientific interest to the "satisfaction problem" (Campo and Yagüe 2009).

Customer satisfaction may be defined as a key indicator of how the company's product corresponds to the customer's expectations. Apparently, if the product does not correspond to it, the customer dissatisfied and vice versa. The level to what many organizations seek to is the situation when the product itself exceeds the customer's expectations; in this case, the buyer is highly satisfied, and there are much more chances that he will return to this exact organization. In the current business world, when the customers have a lot of alternatives, keeping them satisfied is the tremendous competitive advantage as customer satisfaction generates customer loyalty and the potential opportunity to sell this exactly customer premium products as he already loyal to the company. In addition to this, in a world of internet and fast communications, customers also perform the role of marketers for the company (Verhoef 2003).

Customer satisfaction, during the last decades, has been considered as one of the crucial theoretical and practical issues for researchers and marketers (Jamal and Kamal 2004). There are plenty of the theoretical frameworks for customer satisfaction, but the analyzing most of them are outdated as the criteria for customer satisfaction are changing; therefore, it was decided to cover only the frameworks that appeared and discussed in the 21st century. The interesting framework was discussed in the article of Gupta and Zeithaml (2006) where they considered five variables or factors that had impact on the level of customer satisfaction. According to the authors, all variables have a positive and significant impact to the customer satisfaction (Figure 12).

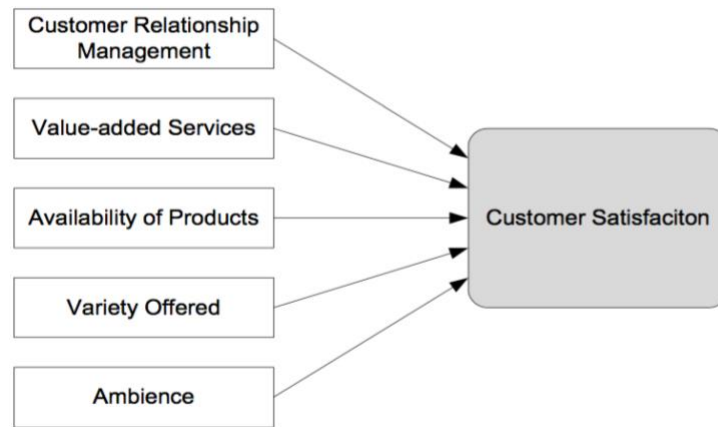


Figure 12. Model for Customer Satisfaction by Gupta and Zeithaml

Source: Gupta and Zeithaml (2006)

As it can be seen from above, the framework may be divided into two major directions: physical variable (that is connected with products and services of the company) and more emotional or psychological one (connected with the atmosphere, relationships). However, not all theories included both directions. For example, Moliner (2004) thought up that customer satisfaction phenomenon is based on two distinct criteria: conceptual and referencial. Conceptual criterion interprets the customer satisfaction as processes of responses generated by customers while another criterion explains it in a situation in which a reaction may occur (Moliner 2004). However, this framework was considered difficult for understanding and was not applied by the practitioners.

With the further researches, scholars went back to the initial investigations and identified that expectation is the most influential determinant of customer satisfaction. This is followed by addition of perceived performance (Sheikn and Basti 2015).

More conventional and traditional methods defined customer satisfaction implicitly as a result of cognitive processes only, while recent studies that appeared because of the daily growth of internet and e-commerce and, consequently, because of the changing of the way of marketing and selling products and services started to include other variables which, as it turned out, have also a pivotal impact to the customer satisfaction level. Currently, as a result of the digital age evolution product sellers and information providers face new challenges. The technology development changes the way the companies do business with their customers who become more demanding to the conditions that online store should possess in order to be chosen: higher service, faster, and more convenient. Moreover, recent studies have more relation to the e-commerce and m-commerce satisfaction.

For example, in 2002 Singh studied that transactions, the speed of the answers, search

support, convenient e-pay system, transparent and efficient e-transaction record and trust to e-assurance have a positive impact on level of customer satisfaction (M. Singh 2002). With the fast development of the Internet and e-commerce, the described factors became inadequate to ensure the satisfaction. Therefore, in 2003 Chen and Dubinsky found that information quality on the website is one of key factors that have a positive impact on B2C e-commerce (Xu and Cai 2003). The thing is that customers have become demanding on the information that is located on the website and therefore they wanted more and more detailed and authentic information about the products presented in the online store. In the same year, Gefen and Starub went more in-depth in the understanding of the factors influencing the customer satisfaction level and analyzed that the accurate information itself is not enough for the customer satisfaction, another factor is the understanding of what is written by the customers (comprehend ability of the information).

In 2003, some scholars also started to have an interest in the understanding of whether there is a significant difference of customer satisfaction from online and offline purchases and Shankar et al. studied that there is no profound difference in customer satisfaction between online or offline purchases, but they also found that loyalty level presented by the customers is greater from online buying (Shankar and Rangaswamy 2003). It is connected with the fact that the finding of the online shop that corresponds to all requirements is more difficult task than finding the same offline store.

After 2005 when online shopping has become more and more popular, new variables are crucial for the choice of the online store and for the level of customer satisfaction. The modern customers demanded privacy; approximately from those years, customers started to pay attention to the ability of the online store to keep their private information and use it adequately without giving it to the third party. Therefore, the perceived security and privacy also influenced significantly to the customer satisfaction, and it is discussed in the study of Bai et al. in 2008. However, the development of online shopping continued, and customers started to be more critical to the esthetic turn, therefore in 2009 Jianchi, and Xiaohong in their study found out that design of the website together with the information quality, web intelligence, and security positively affect customer satisfaction.

In 2014, Nguyen Thi Tuyet Mai et. al, in their paper “Determinants of online customer satisfaction in an emerging market and a mediator role of trust” also tries to identify the factors affecting customer satisfaction directly or indirectly through the trust and they found out the following factors significant: customer interface, perceived security and privacy, technology acceptance (part of it) and trust are significant to determine the customer satisfaction. What is more interesting is that these factors are also significant when determining the trust itself, showing also that sometimes there is higher dependence with trust than with the customer satisfaction.

This study is one of the few ones that include the direct and indirect predictors; therefore, it made it interesting from the academic perspective of finding out if there are any differences between factors of customer satisfaction in different countries. Thus, this study is the basement for this paper. However, it should be noted that because of the fast development of the m-commerce market, the discussed paper lacks new variables that may be interested to the identification of the customer satisfaction and their importance will be discussed later. In addition, that paper analyzed the website quality while in this study we will be focusing on the app-design quality and we assume that there may be different results. Finally, authors did not include a cultural variable that is crucial for this study, and it may change the overall results.

Thus, as it may be seen from the overview of customer satisfaction theories, the most frameworks include such factors such as website design (we understand it as mobile application design as factors for e-commerce and m-commerce are slightly similar especially in the context of visualization and user-friendliness), security and privacy and previous experience. However, we suppose that these factors are not sufficient for the evaluation of the customer satisfaction because, first, there is no any relation with technology and the m-commerce is always about the understanding and adaptation to innovations; second, only a few frameworks consider trust but we need to understand what the effect of trust to customer satisfaction; third, there is no logistics variable at all; however, the delivery of goods is studied by few researchers, and there is found the relation between customer satisfaction and time delivery (Politis 2014; Ghomrassi, 2017); fourth, cultural factor is not considered almost in all theories that make us pay it more attention further. Finally, previous experience as a variable is rarely included in the papers; however, it is clearly stated in different studies that it has a significant influence on the overall customer satisfaction (Johnson and Mathews 1997; Ofir and Simonson 2007; Maleklu and Maleklu 2016; Ji 2017).

1.3.1. Customer satisfaction and technology acceptance

Technology acceptance is an essential factor when there is talk about Internet, e-commerce or m-commerce, definitely. The thing is that all “industries” appeared with the development of the Internet are accepted people depending on their level of the technology acceptance as people accept technologies in different ways (depending on culture by the way but it will be discussed later). So, in order to determine the technology acceptance level, in this paper, the technology acceptance model (TAM) was used.

The TAM is a model that tries to predict the behavior of users. The TAM (which is appeared from the improved and reconsidered theory of reasoned actions and other models connected with the technology) defines that user adoption of a new technology is determined by user intention to use this or that technology, which in turn is determined by the beliefs (or trust)

about this or that technology. It is accepted to call the first belief as “perceived usefulness” (PU) – the degree in which individual consider that the use of this system (technology) increases his or her job performance – and the second one as “perceived ease of use” (PEOU) – the extent of to which individual suppose that usage of particular system (technology) will be free of effort (Çelik and Yılmaz 2011).

It is also worth mentioning the study of Ma and Liu (2004) that provided the analysis of effect of Customer satisfaction and technology acceptance as well as three relationships: 1) perceived usefulness and perceived ease of use, (2) perceived usefulness and technology acceptance (use) and (3) perceived ease of use and technology acceptance (use). The survey showed that TAM is a useful model but is in a lack of cultural variables.

In this study, I have chosen not to include the TAM’s improvements such as TAM2 and TAM3 because there is no a lot of literature that shows their applicability to online shopping: they are designed much more for the use of one specific technology (or system) to be used in work environment rather than on customer adoption of technology (customer adoption of new shopping practices).

1.3.2. Customer satisfaction and culture

The appearance of the Internet created the path for the fast growth of e-commerce. The development of the countries, intensifying of the globalization, economic, political and technological integration has led to the appearance of the high technology systems that allow not to limit the finding of partners and customers by state borders, and therefore modern customers have a much wider choice of products/services as there are more suppliers all over the world in the Internet. However, even though there are more opportunities for e-vendors, the competition is also increasing very fast, especially for the emerging markets where many international giants operate and many industries are only developing with the high rate. Hence, marketers try to keep customers and return them by raising customer satisfaction. And one of the main drivers for it is improving trust (Mai, Yoshi and Tuan 2014).

Hofstede in his study defines culture as the “collective programming of the mind which distinguishes the members of one group or category of people from those of another” (Hofstede, Dimensionalizing Cultures: The Hofstede Model in Context 2011). Hofstede was successful in the in attributing of which of the countries the value of the index (from 0 to 100). In the paper of Hofstede and Minkov (2010) it is described six dimensions of nation culture such as power distance, uncertainty avoidance, individualism, masculinity, long-term orientation, and indulgence.

One of the most important factors which explain the difference in the customer behavior is the fact that culture affects attitudes, lifestyle, and how people communicate and interact with technologies (Xu-Priour, Truong and Klink 2014). Few researchers surveyed the relationship between culture and customer satisfaction. For example, in 2012 Sabiote et al. found out that the degree of individualism affects customer satisfaction in online shopping as well as the perceived service quality. Also, this variable influence on the perceived risk of the customers and information content towards trust. In 2010 another researcher surveyed the national culture based on Hofstede definitions and found out that collectivism, for example, negatively affects the relationship between purchase intention in the online environment and service quality (Ganguly, et al. 2010).

According to Hofstede and Minkov (2010), the Uncertainty Avoidance (UA) dimension has two poles: High uncertainty avoidance (HUA) and Low uncertainty avoidance (LUA). HUA implies the resistance to change, strict control system, risk avoidance, discomfort with the unknown while LUA includes contrary characteristics such as risk-taking, willingness to change, acceptability to new ideas and innovations, etcetera. And in 2012 it was proved that these different characteristics affect the customer beliefs, perception and, consequently, to the use of e-commerce (Sabiote, Frías and Castañeda 2012).

Other surveys were also dedicated to the collectivism and individualism and their effect on the online shopping and customer satisfaction. For example, in 2009 Cheung and Chang analyzed that collectivists in order to create their trust to the e-vendor, first, would search for communities where they could speak with previous customers of this vendor, while individualists would focus only on the good reputation of the e-vendor (Cheung and Chang 2009).

Thus, the development of the Internet and the emergence of e-commerce, as well as m-commerce, makes the meaning has changed. The behavior of the customer in traditional commerce relating to the national culture was quite good analyzed and explained, but the e-commerce plays with different rules; therefore the characteristics of the national culture also influence differently in the online environment, and thus their impact to the customer satisfaction is substantially different.

1.3.3. Customer satisfaction and trust

The literature on the subject of trust is divided into several thematic areas: the study of interpersonal trust (emphasis on the psychological component of relationships between people), the study of the formation of trust between organizations (actively used in analyzing the strategies of firms), the study of institutional trust (trust in social institutions of society), the study of people's trust in computer systems (computer technologies) (Lee and Turban 2014). The least attention is paid to the study of customer trust in various kinds of economic organizations, which are the online

firms (including e-commerce and m-commerce). Consequently, many issues in the field of the relationship between the Internet customer and the online store remain undisclosed. Given that the online trading market is a nascent practice in Russia, empirical research on the interaction of Internet customers and online stores is mostly foreign.

The most common definition of the concept of "online trust" is the trust in online practitioners (Johnston and Warkentin 2004). Online shopping confidence is the desire of the customer to interact with an Internet company, supported by the expectations of fulfilling certain obligations by the Internet company, regardless of whether the customer will monitor its actions in the future or not. In this case, the Internet company is a trustee, and the customer is a truster. Of course, the trustee pursues material interests, but in order to support the demand for the services, he should not only build trust with customers but also take the initiative to build such relationships, creating an image of a competent, decent, benevolent company that is positively perceived by clients. Hence, if an online company satisfies these requests when interacting with a client, thereby stimulating further demand for its services, the probability of the client's repeated application to purchase in this online firm is great. For the firm, the search and attraction of a new client is 5-8 times more labor-intensive and costly than the retention of the client who has already applied to services (Mahmood, Bagchi and Ford 2014), so the online firm is interested in fulfilling obligations, observing the agreed rules, and in critical cases, should strive to show solidarity with to the client and go to meet his requests or requirements (on the return, exchange of goods).

Therefore, it can be assumed that the trust relationship between the customer and the online firm is reinforced by past positive experience with the online firm: additional services, the initiative from the online store has a positive effect on the development of such relationships (here the situation in which the individual already had experience with online store is considered). It is interesting to see how the trust relations between customers and the online firm can develop, and what image in connection with these relations will be inherent in domestic and foreign online stores. It is assumed that online stores that offer discounts, bonus cards, free shipping, small gifts and additional services attract, keep customers and arouse their trust and confidence. Moreover, the sphere of e-commerce is largely developed due to the active interaction of the online store with its potential client, and here it is essential to understand what kind of image is inherent in domestic and foreign online shopping, and how respondents justify their assumptions about the two types of online stores (Nöteberg, Christiaanse and Wallage 2003).

In a situation where the Internet user did not have prior experience of ordering in a domestic or foreign online store, the invented stereotyped image of a domestic and foreign online store is of interest, which will be constructed on the basis of interviews with active Internet buyers.

Trust to the online shop can be subjective, proceeding exactly from the customer, and objective, stimulating trust relationships by online stores, building trust relationships with their direct customers.

The customer has an obvious choice: to buy things in the traditional way, visiting the store, trying on clothes / shoes and paying for it in the usual way for him, or using an online store, the interaction with which implies more uncertainty and risk associated with the correct selection of the item, as well as with payment for purchase and further virtual interaction with the online store in case of any problems (with timely delivery, with the product itself). I must say that such problems are not an exception to the rules, the procedure for sending the goods back to the seller takes a long time, often there are problems with the return of money to the customer (White 2010).

In the choice between domestic and foreign online stores, the customer can search for more profitable offers (economic motive), buy in a certain online store based on the advice of relatives, or simply focus on their social environment (social motive), or proceed from their own unreasonable (or reasonable) ideas about the attractiveness of buying in a particular online store (psychological purpose). The motive of trust, pointed out as a separate motive, includes elements of all three motives; however, its isolation seems to be an important theoretical task contributing to the understanding of the reasons for establishing the economic interaction of a customer with the online store.

In the process of buying online, the customer does not even deal with a person, but with a virtual entity, a company with which, at first glance, it is difficult to demand fulfillment of its obligations. Therefore, a person who is going to acquire something online initially looks for a site that has a positive reputation, a site that was used by other close people, or Internet users who express their opinion about websites on forums and in groups. Overcoming the barrier, namely the fear of buying online, the Internet user can pay attention to the context, the conditions in which the site [e-commerce environment] is located, and it may appear some stereotyped attitude to domestic / foreign online shopping, or online user can pay attention to the local proximity of the seller because of the fear of buying in far-away online stores (Mahmood, Bagchi and Ford 2014). Moreover, the degree of familiarity with the rules of ordering things online, ways to safely conduct online transactions (knowledge of the Paypal system, general ideas about the rights of the customer and the duties of the online store) can make a difference when choosing a domestic / foreign online store.

On the other hand, the choice in favor of one or another online store largely depends on the created image that inspires confidence or forces to refuse to use its services, namely, the "image of a trusted person."

Many authors also give trust to electronic payment systems as the most critical factor in buying online in a particular online store, dictated by the individual's economic desire to safely make payment and avoid the risks of losing money.

Internet transaction always assumes a certain amount of uncertainty, because the behavior of the Internet seller is not completely controlled by the customer; moreover, the online transaction often requires the exchange of confidential personal information (input of name, phone number, address) and financial information (usually the risk includes in itself protection of the information on credit/debit cards). The risk increases if the online store is not in the country of the buyer, which entails the insecurity of the customer's rights by specific legislation, an institution in which one could seek support for solving problems.

Nautberg also made several conclusions regarding online transactions with online stores: (1) regardless of the type of product, the buyer pays equal attention to the security of the transaction, (2) third party involvement is not mandatory for online stores with a high reputation for e-commerce market; however, little-known online stores to attract customers are required to conduct transactions with it, (3) written guarantees for the return of money / goods, exchange of goods, or use of a third party during the transaction increase the level of confidence to the online store (Nöteberg, Christiaanse and Wallage 2003). The most famous "third party" at the moment is the electronic money transfer system Paypal, which provides security guarantees to both the buyer and the seller. There are also online stores offering the ability to pay by credit/debit cards directly through their website: the study questions the way in which customers in Russia pay for their purchases online, whether they are aware of the possibility of paying with Paypal.

In this paper, trust in m-commerce (or in m-vendors) is defined as the degree to which the trustor (m-buyer or m-shopper or m-customer) is going to be vulnerable to the actions of the trustee (e-vendor itself)

In addition, it is impossible to consider the domestic Internet user separately from the environment of its existence, namely, Russia. Researchers associate with trust "the national character, the collective historical experience of the people, the fundamental universal moral values" inherent in this or that society (Rukavishnikov 2008).

The first series of articles touches on the fundamental problems of trust in Russian society and refers to the historical experience of the development of the Russian state. In 1999, an article was published with the results of the research, the main task of which was to find the reasons for the lack of trust in the business environment of the four former Soviet republics (Belarus, Kazakhstan, Russia, and Ukraine) (Neace 1999). Nimes M. examines three interrelated concepts: trust, social capital and civil society in relation to the entrepreneurial environment. For this paper, the following are important: 1) the definition of trust as a mutual expectation based on shared rules

and norms of behavior on the part of two interacting parties (clients and firms) (Fukuyama 1965), and 2) the definition of the concept of social capital, not as human (comprising knowledge and abilities) and not as social (a set of social contacts), but as related to the construction of communication, which includes the ability of people to cooperate (in groups, organizations) on the principle of pursuing common goals, reinforced by trust, interacting on the basis of norms and sanctions (interactions in the business environment) .

Neace M. emphasizes that the Soviet past: totalitarianism, cultural deprivation, the lack of capitalism, the prevalence of informal networks of entrepreneurs, negatively affected the further development of the economy of the four countries (Neace 1999). The researcher emphasizes that the trusting relations between entrepreneurs, employees, suppliers, and customers form the basis for the creation of sustainable business networks, further contributing to the economic growth of the country as a whole. Lack of trust in society (interpersonal and institutional), inhibits the emergence of any emerging business and hinders its development. It can be said that at that time, in an entrepreneurial environment, there was no installation for trustiness, and the exchange was, mainly, built on networks of a narrow circle of persons. It is interesting that more recent sociological studies confirm that there is a low level of interpersonal trust and a low level of institutional trust in the country (Rukavishnikov 2008; Lebedeva and Tatarko 2009).

Moreover, the atmosphere of mistrust of social institutions, lack of faith in compliance with laws increase opportunistic behavior in society and the reluctance to interact with a business that many believe is based on fraud and theft. I suppose that the predetermined reputation of Russian business as necessarily seeking to deceive, steal a client, prevents Russian online shops from competing with foreign ones, and can force a large proportion of Russian online buyers to buy not on domestic but on the foreign Internet- shops. Thus, the analysis of the interview will help to identify the attitude of Russian Internet customers to domestic and foreign online shopping, see how potential customers perceive foreign and domestic online stores.

The above articles reveal the general situation in Russia, confirm that the problem of trust affects the economy, economic relations between clients and firms, and the problem of low level of institutional trust.

Summary of chapter 1

This chapter presents an overview of Chinese and Russian e- and m-commerce markets and the analysis of the literature covering the customer satisfaction models and factors that affecting it. Summing up the chapter dedicating to the literature review, the following results are gathered:

First, there is an increasing trend of using mobile phones for purchasing physical products via the Internet. Purchasing via mobile applications change the e-commerce industry in the form that people have always “shop in their pocket,” therefore increasing the opportunities to buy at any time and in any place.

Second, Russian e- and m-commerce markets are in their high development stages; the volumes of Internet markets increase every year with average 20%; therefore, there is a high field for opportunities. What is more: in Russia Internet commerce, there is a trend of cross-border trading: from 2015, the increase is about 30% each year; the central country Russian prefer to buy from is China. Such situation raises the challenges for Russian m-commerce markets – they are in a great need of improving their services in order to increase customer satisfaction to keep people.

Third, Chinese e- and m-commerce market is saturated; therefore it continues to grow. The main and popular Internet shops (including mobile application) belong to Alibaba group. Even though there is also a cross-border trade, Chinese people more and more prefer buying local products and they have unique mobile payment systems such as Alipay (支付宝) and Tenpay (财付通), purse WeChat that help to simplify the whole process.

Next, going on to the literature about customer satisfaction models, even though there are a lot of different theoretical frameworks that studied factors affecting customer satisfaction, there is no current study that analyzed the customer satisfaction through the mobile application. The majority of the articles and papers are dedicated only to e-commerce; however, there is a difference between the website and mobile application; therefore, there is an interest of how factors affecting customer satisfaction and trust in the context of m-commerce.

Furthermore, there are plenty of papers discussing the factors of customer satisfaction but most of them focusing only on one country and few of them – on two countries, but there is no paper that discussed the difference in customer satisfaction between Chinese and Russian customers on m-commerce market in recent years even though the electronic trade relations between these two countries are developing very fast and the volume of cross-trade is increasing from year to year.

Next, with the further development of m-commerce market, there is no paper that includes the model with all adequate factors: most of the current models do not include together factors that may be important for the identification of customer satisfaction. For example, few studies discuss the effects of the logistics (time delivery, to be precise) to the trust and customer satisfaction. Furthermore, discussed theoretical frameworks do not include all described factors that correspond to the modern m-commerce environment.

Finally, most of the recent studies do not include a cultural factor that may affect a substantial effect on the customer satisfaction.

Therefore, based on the literature review analysis the following gap and research questions can be formulated:

Research gap: The lack of customer satisfaction model that could include all factors, considering cultural variable, that corresponds to the requirements of m-commerce environment in the context of emerging markets

RQ 1: What are the main factors affecting customer satisfaction in m-commerce market?

RQ2: Is there a difference between Chinese and Russian customers satisfactions models?

2. Chapter two: Methodology

This chapter will present a detailed idea about which method and techniques were implemented for conducting the research. The research method is defined as the collection of rules, tools, and reliable and well-ordered ways to study the realities, to disclose the passivity, and to acquire the solutions.

This paper is based on research in two countries, namely Russia and China. The research employs a quantitative technique that is a questionnaire to collect the necessary data and information regarding the data. A total of 650 respondents were asked to fill the questionnaire over social media, link distribution on the channels of Tsinghua University and different blogs of two countries. 330 respondents answered from China and 320 from Russia. Finally, 304 respondents were selected from China, and 296 respondents were selected from Russia as the questionnaire had the first question to see whether the respondent had experience of buying via mobile application in the last 6 months and those who answered “no” were extracted from the further analysis. In this regard, the total sample amounted 600 participants. In this research, the convenient and snowball samplings were used because of the ease and time-saving. The questionnaire was designed and distributed online to be parallel with the essence of the research which is the online realm of activities.

The respondents are taken as the representatives of the entire country, and analysis is conducted that explores the similarities and differences between B2C m-commerce satisfaction in two countries.

2.1. Theoretical framework

Research model used in this paper is model that was used in the paper of Nguyen Thi Tuyet Mai at al. in 2014 with the additional adding of three variables that were not discussed in the paper (culture, technology acceptance, logistics). Moreover, the model was applied to the e-commerce market while in this paper, the model will describe the influence of factors on the customer satisfaction in the m-commerce market (Mai, Yoshi and Tuan 2014). Moreover, in this paper not all factors that were included in the survey of Thi Tuyet Mai at al. in 2014 are included here because their effect is already proved and their repeated analysis will not bring any academics or practical novelty.

Moreover, based on the literature, the submodel inside the main model will be also described as there is a great interest in the finding of the influence of technology acceptance and culture in the m-commerce market. Therefore, the model that is used in this paper is presented in figure 13.

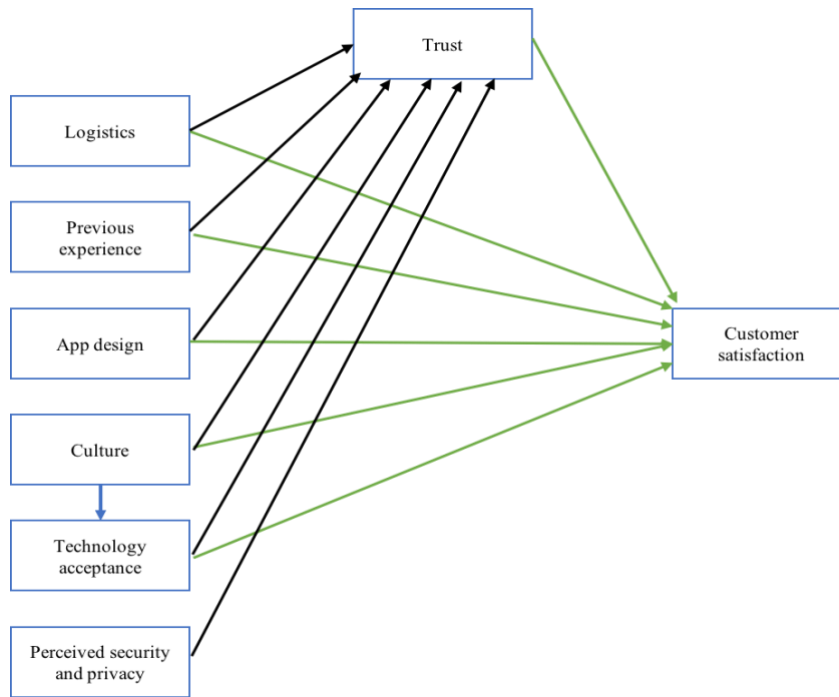


Figure 13. Theoretical framework for the current survey
Source: made by author

Factor logistics in this paper is defined as the promised time of delivery of the goods ordered via mobile application and the actual time these goods were delivered. The paper does not cover the infrastructure of two countries as in order to analyze the whole logistics; the sampling should be cover many cities of two countries as the logistical infrastructure in big cities and small cities as well as infrastructure between two countries differs a lot. Therefore, the “potential logistics” is analyzed in this paper.

Meeting customer’s expectations and delivery requirements have to be a priority for every business. Moreover, the delivery timing is a tricky thing because the vendor should be very precise about the timing. The late of the goods delivery will definitely have a negative effect on the customer satisfaction as the customer is forced to wait for more than he planned (Zhang, Vonderembse and Lim 2005). Theoretically, the contrast situation (with earlier delivering) should have the same effect, but in fact, the researchers have different opinions in this field. For example, Ghourrassi (2017) in his paper found the positive relation between earlier time of delivery and customer satisfaction level. From the other turn, Khan at al. in their survey discussed that customers both dissatisfied with the long waiting and early delivering of the goods as the causes for dissatisfaction are the same in both situations: the customer is forced to change his or her plans because of early or late delivery.

Thus, we may propose the following hypothesis:

H1: The earlier time of delivery has a positive relationship with Customer satisfaction

Factor previous experience is included to analyze the effect of previous experiences as well as see if there are any difference in the level of technology acceptance. It will be also covered the effect of the perceived risk from those that have had bad experiences and how previous experience related to future expectations.

Factor application design is a concept that involves different aspects that affect the customer satisfaction; for example, Negash, Ryan, and Igarria (2003) used three factors in their study such as information quality, system quality (interactivity, access) and service quality (assurance, reliability, empathy) (Negash, Ryan and Igarria 2003). Other authors such as Parasuraman, Zeithaml, and Malhotra (2005) define four dimensions that may define the application design – system availability, privacy, post-transaction experience, and the efficiency of the website while Bauer, Falk, and Hammerschmidt (2006) claim in their study that functionality, design, enjoyment, process, reliability, and responsiveness are major characteristics forming application design concept. And finally, Chang and Chen (2009) include convenience, interactivity, customization, and character as dimensions of the considered factor.

As it is seen from the above, different authors included different characteristics, and some of them may overlap with other factors (perceived security and privacy, technology acceptance). Thus, this paper wants to focus on the text (information), design and functionality because for users of mobile applications and online shoppers, friendly, simple and effective app-design (including customer interface) is very important.

When the customer knows the product and its features, pictures are more efficient and effective than text; however, if the customer wants to buy the product which is never bought before, then the text is more appropriate, and the picture advantage diminishes (Pyk 2000). Information is the overall content of the mobile application. It is constantly updating by adding the latest data and new products and stimulates customers with more alternatives by tailoring to their needs (Mai, Yoshi and Tuan 2014). Design is the visual image and content which creates the atmosphere for the customers. It includes fonts, graphics, colors, background patterns, etc.

Montoya-Weis and Voss (2003) proved that information (its reliability and quality), navigation structure (user-friendliness), and graphic style (design) are three app-design factors influencing customers overall satisfaction.

Combining the application design and e-trust, it may be marked that the application itself is the very important variable of e-trust (Thakur and Summey 2007). Different authors analyzed and proved that irrelevant information, not a user-friendly interface, fonts have negative impact to the e-trust (Hoffman, Novak and Peralta 1999; Szymanska and Hiseb 2000; Park и Kim 2003).

As it was discussed in the previous chapter, in the culture factor the Hofstede's national culture work was accepted as a basement. The levels of uncertainty avoidance, individualism,

power distance, masculinity-femininity, and long-term orientation in both countries can positively or negatively affect the rate at which a country adopts an IT.

UA is one of the most studied aspects among other four Hofstede's factors. Nowadays, the majority of studies show the negative relationship between technology acceptance and UA (Peters and Dulk 2003; Dwyer, Mesak and Hsu 2005; Erumban and Jong 2006; Gong 2014). In the pointed studies, for example, demonstrated that LUA (low uncertainty avoidance) countries are readier and more often allow employees to work from home, while countries with HUA (high uncertainty avoidance) "hinder" the internet adoption, technical development, and different innovations (including technical ones and innovation in the meaning of changing the habitual lifestyle) (Tsatsou 2012). However, not all researchers support these findings: for example, Gong, Li, and Stump contradict the above statement and claimed in their paper that there is no any relationship between UA and technology acceptance (Gong, Stump and Li 2007). Therefore, even though the majority of the studies claim that there is a relationship, some studies have opposite results that make this question interesting to this particular paper.

Talking more concrete about characteristics of the UA, it may be stated that LUA representatives tend to develop trust much more quickly than HUA representatives. Furthermore, HUA individual may make a lot of efforts on uncertainty reduction while LUA ones are not characterized by this statement (Furner et al. 2013). In addition, because of attitude to uncertainty, HUA have lower trust in online shopping, and believe in loss of privacy; therefore, they are doubting in buying online and characterized by slow internet buying adoption rates (Kailani and Kumar 2011; Sabiote, Frías and Castañeda 2012; Kaur and Quareshi 2015). All these lead that HUA and LUA customers differ a lot in beliefs, perceptions, associations, and use of e- and m-commerce market (Kim & Peterson 2003). Because of this difference, when choosing the m-shop, HUA customers place a crucial role to an assertive outcome, such that they try to eschew the ambiguous situation considering security, privacy, and so on (Chong, Yang and Wong 2003); while LUA customers have more risky behavior and have trust on a possible positive outcome.

Generally, HUA customers are described as more disciplined, therefore, they are careful and attentive with formal procedures, rules and promises between m-vendor (provider) and customer (Lee and Joshi 2007; Sabiote, Frías and Castañeda 2012). Thus, HUA individuals require higher confidence level through a privacy policy in online shop in order to minimize potential risks (Sabiote, Frías and Castañeda 2012).

Obviously, summing up the information above, HUA individuals when using online shops have higher perceived risks than LUA ones (Ganguly, et al. 2010). It was also proved that HUA customers positively perceived on different navigational design parts to increase the trust (Singh, Kumar and Baack 2005; Cyr and Kindra 2008; Ganguly, et al. 2010). Sabiote et al. (2012) also

noticed in his paper that relevant information on the website as well as the perceived privacy of the customers substantially affects the satisfaction of the shoppers. Summing up, it is worth saying that for LUA customers perceived risk has a more negative effect on the overall assessment of the buying process (Sabiote, Frías and Castañeda 2012)

Thus, as it was already discussed that LUA representatives do not hesitate to try something new, they are open to innovations and not associated with the slow internet buying adoption rates, and we know that China is a LUA country while Russia is HUA country, we propose the following hypothesis:

H2: Chinese customers have a higher level of technology acceptance.

Analyzing the collectivism/ individualism dimension, it is considered and accepted that countries with Confucian culture direction have a higher level of collectivism (Wang, et al. 2005). Generally speaking, studies dedicated to the analysis of the relationship between IT adoption and individualism/collectivism have mixed results. There is one part of authors (Haapaniemi and Mäkinen 2009) that claim that collectivism negatively affect technology acceptance (and individual – positively); and the other part of authors (Gong, Stump and Li 2007; Gong 2014; Alhirz 2015) that assert that there is no significant relationship between these variables and there cannot be any talking about the effects of one variable to another. There is even one study (Stump et al. 2010) that contradicts the first part of studies claiming that individualism has a negative effect on technology acceptance, in general, and mobile adoption, to be precise.

Thus, according to the mixed results, we may state that the identification of individualism/collectivism is not substantial enough condition to finding the relationship between culture and technology acceptance. Therefore, we need to include in our analysis one of the other directions of culture by Hofstede. It was chosen to stop on masculinity/femininity.

According to Hofstede (2011), feminist culture focuses on concern for others and development of social relationships while masculine culture is more about materialism and achievements. Nevertheless, some studies discussed that masculine cultures would adopt technology at higher rates (because of the standard characteristics of masculine cultures – achievement-oriented, competitive) than feminist countries; in fact, the results are not concrete: some studies show that there is no relationship at all, and some show opposite results – that feminist countries adopt technology faster (Gong et al. 2007; Stump et al. 2010). There is also even a study where authors showed that some technologies are adopted faster by masculine countries, and other technologies are accepted faster by countries with feminist culture. The thing here lies in the purpose of the technology: some of the technologies or innovations) are used to enhance communication (*development of social relationship*) while others are used for competition

(*achievement-oriented*) (Erumban and Jong 2006). One of the recent studies that focused on communication innovation – social network sites – supported this idea (Gong et al. 2013).

As the masculinity/femininity direction also do not give concrete results: the additional part of the national culture by Hofstede is considered – individualism/collectivism. Collectivists develop high levels of trust if they communicate with people they already know and have a relationship while individualist “start” relationship in case if the benefits exceed the costs of participation and exit this relationship in the opposite situation (Frost et al., 2010; Furner et al. 2013). Therefore, as mobile shopping is more about communities, than it means that trust to online shopping is higher for collectivists (Xu-Priour, Truong and Klink 2014). In addition, it is also stated that third party seal (cyber security) is more significant for more collectivists while privacy has a positive impact on trust in online shopping for individualists (Kim 2006).

What is also interesting is that individualist pay more attention to online shops that have good reputations (Chong, Yang and Wong 2003), while collectivists try to found out different communities where they may confirm the trust to this or that online shop or enhance it (Lee, Geistfeld and Stoel 2007; Cheung and Chang 2009). And not surprisingly that individualists will search information about new technology by themselves on external sources while representatives of collectivist countries will rely on other people and their experience (Lee et al. 2013). Therefore it leads us to the idea that collectivists prefer to share information with others while individualists have a stronger desire to receive new information (Madupu and Cooley 2010). Finally, representatives of collectivist countries pay more attention on the responsiveness of e-vendors (Li and Mäntymäki 2011) and search for advice for decision making and emotional support on social media (Ji, et al. 2010) while individualists place more attention on the website ease of use; and therefore, we suppose that on application ease of use (Mäntymäki and Merikivi 2014).

Thus, as we know that China is a collectivistic country that affects to the level of the distribution of the innovation and that masculine countries, potentially, may have higher trust to new innovations and systems, we may propose the following hypothesis:

H3: Chinese customers have higher trust in m-commerce shopping rather than Russian ones

Factor Technology acceptance, as it was mentioned previously, has two beliefs: PU and PEOU. PU is the belief of customers in enhancing online transaction performances (Davis 1989; Chiu, et al. 2010). Whenever customers have perceived usefulness, they tend to trust a given e-vendor (Mathieson 1991; Pavlou and Fygenon 2006). Perceived usefulness is essential in shaping customer attitudes and satisfaction with the e-commerce channel (Devaraj, Fan and Kohli 2002). The usage of Internet-based learning systems relies on the extended version of the technology

acceptance model (TAM) and is perceived to be useful in helping increase learners' satisfaction (Bhattacharjee and Premkumar 2004; Saadé, Nebebe and Tan 2007)

Factor perceived security and risk refer to the customer's opinion of transmitting of personal and any other sensitive information to e-vendor via mobile application (Chang and Chen 2009). Already in 2009 Hoffman et al. analyzed that 69% tried not to transmit any information about themselves (and about credit cards) using e-commerce (Hoffman et al. 1999). Nowadays, the percentage did not change dramatically because most of the websites including mobile applications do not explain any reasonable purposes for future usage of customers' information. This relationship may be also explained by the invasion of culture: the LUA countries have less fear in using their personal information in the Internet

In the reality, one of the main reasons for slow-down in the growth of m-commerce is the loss of customers trust in the defense of their privacy and security of the systems, especially considering usual incidents such as money thief from credit card, a leakage of personal information (i.e., the recent case with Facebook – even it is not connected directly with the m-commerce, it is connected with one technology – Internet), etc. In order, to build a strong and long-term relationship between customers and online vendors, significant changes should be done, and the coordination among information technology, audit functions, and financial control should be created (Johnston and Warkentin 2008). Considering with the information above, Szymanski and Hise (2000), Kim (2003), Jin and Park (2006) demonstrated that perceived security and privacy has a dramatic effect on both customer satisfaction and trust.

Thus, as it was discussed that culture has a positive relationship to technology acceptance (LUA countries have higher level of technology acceptance) and that the higher level of technology acceptance leads to the higher level of perceived security and privacy, we propose the following hypothesis:

H4: In China, there is a higher level of perceived security and privacy than in Russia.

Moving on to trust factor, we may claim that it is one of the most discussing factors in the resented model. Some authors (Morgan and Hunt 1994; Chiou,2003; Singh and Sirdeshmukh, 2000) based on the social exchange theory (Blau 1964) proved the strong effect of trust to customer satisfaction. In addition, other researchers also proved and even specified the impact of trust on satisfaction in individual encounters and discussed the effects on post-purchase customer satisfaction (Singh and Jayanti 2000). Furthermore, in 2009 Chiue et al. in terms of online environment found out that trust is the strongest variable that has an effect on customer satisfaction.

In the online environment, trust is defined in different ways, but mainly it is based on four definitions. One of them is trust is “a belief in competence, benevolence, and integrity” (McKnight,

Choudhury and Kacmar 2002; Pavlou and Fygenson 2006); the other one is that trust is “the expectation that others will do as expected” (Jarvenpaa, Knoll and Leidner, Is Anybody out There? Antecedents of Trust in Global Virtual Teams 1998). The third definition is about general “belief in online vendor that leads to behavioral intentions (Gefen 2000); and the last one is “the customers’ willingness to become vulnerable to the seller of an Internet store” (Jarvenpaa, Tractinsky and Saarinen 2006). The definition that is used in this paper agrees with the concept of Gefen (2000) because in this study, identically, to the pointed one, trust is seen from the aspect of belief in online vendor rather than customers willingness to be vulnerable to the seller of an Internet store

Therefore, as we consider trust from the point of view of beliefs in online vendor, trust, will be obviously affected by culture (by UA, to be precise), and we already know that China, being a country with LUA, is more “risky” in the decisions and activities, thus we proposed the following hypothesis:

H5.1. Technology acceptance has a positive relationship with customer satisfaction in China

Even though Russia is a HUA country, we know they are eager to minimize risks and require more privacy order to raise confidence levels when shopping online and satisfaction when using the mobile application (Sabiote, Frías and Castañeda 2012). However, the level of the suggested security and privacy may be applied only to the technological innovations. According to this, we may propose the following hypothesis:

H5.2. Technology acceptance has a positive relationship with customer satisfaction in Russia

In terms of Hofstede’s dimensional system of cultural differences, individualism and UA may be used as substitutes for national cultures as found in a number of previous studies (Han and Shavitt 1991; Kale and McIntyre 1991). Moreover, as it was discussed briefly above, UA and individualism/collectivism have a direct effect in predicting customer trust in online shopping (Yoon 2009). In addition, Park et al. (2012) analyzed in his study that cultural values impact how customers with Eastern and Western backgrounds form trust in online environment (online shopping, to be precise). They found that Eastern backgrounds tend to have lower tendency to trust compared with Western ones. In addition, focusing on Asian researches, Chen et al. (2008) proved that even though there are no significant differences in trust development across China, Hong Kong, and Taiwan, there is a fact that in China there is a higher trust tendency. Therefore, it is clear that generally, culture has an impact on the trust.

Thus, according to this, we may propose the following hypothesis:

H6. When comparing Russia and China, the belonging to the culture have an impact on the trust

Papers on the role of culture in customer satisfaction level had a great pick in the ending of the 1990 (Donthu and Yoo 1998; Furrer et al. 2000), and the majority of them were based on Hofstede’s cultural dimensions. These studies proved that there is a connection between these two variables. However, there is an important note that when talking about the customer satisfaction in different countries, it is needed to understand that, for example, customers from different cultures may have different customer satisfaction. For example, because of different level of UA, they may feel completely different making a purchase via new mobile application (Duque and Lado 2010).

Thus, according to last statement and the discussions above, we may propose the following hypothesis:

H7. When comparing Russia and China, the belonging to the culture have an impact on the customer satisfaction

Table 1. The final hypotheses for testing

#	The hypothesis	Authors
H1	The earlier time of delivery has a positive relationship with customer satisfaction	Ghoumrassi, 2017; Meybody, 2015
H2	Chinese customers have a higher level of technology acceptance	Ma and Liu, 2004; Çelik and Yılmaz, 2011; Li, 2013
H3	Chinese customers have higher trust in m-commerce shopping rather than Russian ones	Chang & Chen, 2009; Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014
H4	In China, there is a higher level of perceived security and privacy than in Russia	Sabiote, et al., 2012; Jin and Park, 2006
H5	Technology acceptance has a positive relationship with customer satisfaction in both Russia and China	Chiu et al., 2009; Pavlou & Fygenson, 2006
H6	When counting trust, the model of factors’ effects on trust for China is the same as a model for Russia	(Hofstede, 2011; Park et al., 2012)
H7	When counting customer satisfaction, the model of factors’ effects on customer satisfaction for China is the same as a model for Russia	(Hofstede, 2011; Duque, Lado, 2010)

Source: Author’s compilation of hypotheses

2.2. Scale development

The questionnaire is a collection of written queries, to collect and record needed information applied by the researcher during the course of research. Queries are arranged to put all the essential variables for research and are completed by respondents in presence, in absent, directly or indirectly. Measurement scales used to test the qualities in the information collection tools (Cooper and Schindler, 2003). There are two types of measures nominal and ordinal scales.

Applied questionnaire was based on research questions and mentioned conceptual research model which was applied in questionnaire of different articles which the first one is the questionnaire of Thi Tuyet Mai, Takahashi Yoshi, Nham Phong Tuan (2014) in article “Determinants of online customer satisfaction in an emerging market ñ a mediator role of trust” and measures of Wu and Wang in “What drives mobile commerce? An empirical evaluation of the revised technology acceptance model” (2005). Measures for the cultural factor were applied from the paper of Hofstede “Culture and personality revisited: Linking traits and dimensions of culture”.

The questionnaire first was created in English and then translated both in Russian and Chinese. As the author is the native Russian speaker, there was not a great necessity to use the third parties to evaluate the understanding of the question; nevertheless, the Russian questionnaire had a trial launch with around 10 people for the examination of the questions’ meanings. For the translation to Chinese, the Chinese-speaking Russian was chosen in order to transmit the meaning of the questions correctly. The second stage of the translation was the verification of the translated questionnaire by the professor of Tsinghua University in order to check whether the questions have correct meaning to the Chinese customers.

Five-point Likert scales with endpoints of “strongly disagree” [1], disagree [2], Neutral [3], agree [4] and “strongly agree” [5] were used to examine participants responses to these statements. There are two sections in the questionnaire. In the first section, demographic questions collected information about respondent’s gender, age, education, innovativeness, specialization, technology usage and in the second section phrased descriptive statements for other construct in the model which respondent chose from 5 point Likert scales.

This questionnaire was consulted with academic experts in face to face interviews. Experts reviewed the questionnaire according to the meaning, checked for phrasing within the questions for better adjustment and compatibility with Chinese and Russian environments. After giving the feedbacks about the questionnaire, some changes and modifications were made. These feedbacks were used as a basis for refining, correcting and enhancing scales.

Succeeding that, a pilot study was performed with 20 respondents for each country to check and approve the final questionnaire. They filled the questionnaire and then mentioned to us any ambiguous and difficult questions to understand and interpret. After this stage, some little modifications regarding translation to Chinese and Russian were made. The final version of the questionnaires is brought in Appendices 1 and 2.

The questionnaire is divided into 11 parts: the first part is the controlling question where the people who had not have an experience of m-commerce shopping in last 6 months were eliminated from the survey. The second part is the general questions about the most popular mobile applications and products categories. In third-tenth parts questions about the factors are brought

(previous experience block, technology acceptance block, logistics block, perceived security and privacy block, application design block, trust block, customer satisfaction block, culture block). Lastly, the demographic information of the respondents is asked. The measures of all variables and their names in data analysis may be found in Appendix 3.

2.3. Sampling strategy and data collection

The empirical study is conducted using primary data from 600 respondents from both China and Russia. In the majority, people from 18 to 55 years old were chosen as an object of this research due to a number of premises. First, the category of people from 18 till 35 years old is important to analyze in this paper as this group is the most active in the online environment and they are the most often users of mobile phones and, consequently, of mobile applications and mobile shops. Second, the category of people from 36 to 55 years old is chosen because of the interest to their attitude to m-commerce. This group of people will be the minority because they are only started to use the mobile applications and mobile shops.

To reach the respondents, different methods were used. First, for Russian questionnaire, the google form was used as this type of online questionnaires is quite popular in Russia. Next, the link to the questionnaire was distributed among students of Saint-Petersburg State University, Moscow State University, and Far-Eastern State University and link also was placed to the website pickabu.ru. The access to the link had all members of the university from bachelor degree till professors and other staff of the universities. This helped to gather the majority of respondents in the first category. Next, the snowball sampling strategy was used, and the link was transmitted from one person to another one. The combinations of convenient and snowball samplings helped to gather 320 respondents from Russia.

For China, the similar strategy was used. The questionnaire was created with the help of Survey Monkey website. The google website was deliberately ignored as it does not work properly in China. The link was distributed in Tsinghua University, Peking University, and Shanghai Jiao Tong University. The access to the link also had all member of the university including students, MBA students, professors, and other staff of the universities. Next, the snowball sampling strategy was used, and the link was transmitted from one person to another one. The combinations of convenient and snowball samplings helped to gather 330 respondents from China.

However, 24 respondents from Russia and 26 respondents from China were not included in the final analysis in this paper because they were either did not have experience in m-commerce (and therefore, they are not relevant for this study) or did not finish the survey. The final demographics of the respondents may be observed in chapter 4.

Summary of chapter 2

This chapter presents the reasoning behind the choice of a study subject, sampling procedure and the methodology of building and verifying the questionnaire.

First, based on the literature review, the theoretical model was presented consisting of two main parts: model for identifying the impact of factors to the trust and model for identifying the impact of factors to the customer satisfaction; furthermore, the submodel for identifying the relationship between culture and technology acceptance was also presented. Furthermore, based on the overall received model and literature analysis, seven hypotheses were developed.

Next, as a research method survey was chosen because it allows gathering information, analyzing it and enables its utilization in a quantitative study. The questionnaire was based mostly on scales presented by studies of Thi Tuyet Mai, Takahashi Yoshi, Nham Phong Tuan (2014) and Wu and Wang (2005). The cultural block was applied from the paper of Hofstede “Culture and personality revisited: Linking traits and dimensions of culture.” The questionnaire consists of eleven blocks. In the first nine blocks of the questionnaire, respondents specify their demographic profiles, family characteristics, international experience, cultural adjustment abilities, educational background, migration intentions, career expectations and work experience, and, finally, the perception of a local labor market. The next two blocks evaluate push and pull factors of migration and talent management practices as a tool to turn migration back.

The questionnaire consists of 11 parts and 74 questions: the first and the second blocks are the controlling and general questions about popular mobile applications respondents to use. The third-tenth blocks represent the question about the main factors and dependent variables using a Likert scale. Finally, the last block represents the demographics of the respondents.

3. *Chapter three: Empirical results*

This chapter gives a thorough analysis of the results taught in this paper. All tests were done with the use of IBM SPSS Statistics 24.

Primarily, the Cronbach analysis was done to measure the consistency of the created scale. Then the test of normality was applied to identify whether there is normal distribution or not. The results showed that there is a not normal distribution; therefore, the non-parametric test is used to get the final results.

In this paper, the following tests are used: for the testing of hypotheses 1, 2, 3, 5 the correlation analysis is used as there is a need to show is there a relation between variables or not. Moreover, for hypotheses 2, 3, 4 non-parametric Mann-Whitney test is used for identification of differences between independent variances. IBM SPSS Statistics 24 allows to conduct the only two-tailed test, but for this research, we need to test the one-tailed test. For this purpose, according to SPSS tutorial it is needed to divided p-value by 2. Finally, for hypotheses 6 and 7 regression analysis was used to find out the effects of independent variables on dependent one.

3.3. **Reliability analysis**

Tavakol and Dennick (2011) say that reliability is concerned with an instrument's ability to measure consistently. Alpha was developed by Lee Cronbach in order to provide a measure of internal consistency of a particular scale. Alpha is a critical concept when it comes to the evaluation of the questionnaires. The reliability coefficient of Cronbach's alpha varies from 0 to 1. If the Cronbach's alpha coefficient is closer to 1.0, the consistency of the items would be higher. Cronbach's alpha is the most widely used measure of reliability when multiple-item measures are used. Cronbach's alpha has been reported to show the internal consistency for the scales used for this research. Internal consistency refers to the inter-relatedness of the items in the scale. As a rule of thumb, a reliability of 0.70 or higher is acceptable, thus Cronbach's alpha should be equal or greater than this standard.

IBM SPSS Statistics 24 was used to test the reliability of the questionnaire used for this research paper. 74 questions were included in the questionnaire. The individual Cronbach's alpha comes out to be greater than 0.7 that validates the reliability of the questionnaire. The reliability of each construct is shown in Table 1 in Appendix 4. It can be seen that individual Cronbach's alpha for each construct is greater than 0.8.

3.4. Data Analysis

As it was mentioned before, overall, there are 650 respondents took part in the survey. The relevant respondents decreased to 600 with 296 answers from Russia and 304 – from China.

Table 2. Test of normality

	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	Sig.	Statistic	Sig.
Previous experience variable	.111	.000	.977	.000
Technology acceptance variable	.118	.000	.967	.000
Logistics variable	.123	.000	.923	.000
Perceived security and privacy variable	.159	.000	.946	.000
Application design variable	.144	.000	.940	.000
Trust variable	.121	.000	.960	.000
Customer satisfaction variable	.145	.000	.945	.000
Culture variable	.114	.000	.962	.000

Author's calculations of primary data

As it can be seen from the table 2, the significance level for both Kolmogorov-Smirnov test and Shapiro-Wilk test are below .05, therefore the data significantly deviate from a normal distribution. In this case, we proved the usage of non-parametric test further.

3.4.1. Demographics

Table 3. General profiles of respondents

Characteristics	Frequency	Percentage (% out of total N=600)
GENDER		
Male	218	36
Female	382	64
AGE		
18-35	526	88
36-55	74	12
HIGHER EDUCATION		
Yes	584	97
No	16	3
OCCUPATION		
Student	332	55
Entrepreneur	55	9
Full-time	138	23
Freelancer	52	9
Do not work	23	4

SALARY		
There is enough money for food, but buying clothes is difficult	37	6
Money suffices for food and clothes but buying a refrigerator, TV; furniture is s problem	435	72.9
I can easily buy a refrigerator, TV, furniture, but for more, I do not have money	108	18
I can easily buy a car, but for more - an apartment - there is no money	1	0.1
I can afford almost everything	13	2
Difficult to answer	6	1
SPENDING MONEY PER MONTH		
<1%	43	7
2-5%	237	40
6-10%	60	10
>10%	260	43

Source: Author's compilation of primary data

As it seen from table 3, there are 600 respondents for analysis. The majority of the respondents are women – 64%. As it was predicted earlier, most of the respondents lie in a group of 18-35 years old – 88% from all of the respondents. More than 90% of respondents have higher education and are students, but there may be a tricky situation as MBA students might have also be in this category. From the table 3, it is also observed, that most of the respondents spend more than 10% of their monthly salary to online shopping, but it is interesting to see further customers from which country spend more.

Next step is to move forward to see the demographics of both countries separately.

Table 4. Russian profiles of respondents

Characteristics	Frequency	Percentage (% out of total N=296)
GENDER		
Male	115	39
Female	181	61
AGE		
18-35	252	85
36-55	44	15
HIGHER EDUCATION		

Yes	270	91
No	26	9
OCCUPATION		
Student	100	34
Entrepreneur	44	15
Full-time	78	26
Freelancer	44	15
Do not work	30	10
SALARY		
Money suffices for food and clothes, but buying a refrigerator, TV, furniture is s problem	202	68
I can easily buy a refrigerator, TV, furniture, but for more, I do not have money	64	22
I can afford almost everything	18	6
Difficult to answer	12	4
SPENDING MONEY PER MONTH		
<1%	58	20
2-5%	206	70
6-10%	20	7
>10%	10	3

Source: Author's compilation of primary data

From the table 4 above, describing the demographics, it is seen that the majority of the Russian respondents are women (60%) and the majority of the respondents are 18-35 years old – in this age, there are a lot of the users of mobile applications and, therefore, of m-commerce.

Approximately, the equal percentage of the respondents are either students or full-time workers (with the advantage of students), and their economic situation may be described as “enough money for food and clothes” that does not state about the high wealth. Nevertheless, monthly, Russian respondents spend approximately from 2 to 5% of salary on purchases online.

Table 5. Russian preferences in m-commerce

Characteristics	Frequency	Percentage (% out of total N=296)
POPULAR APPLICATION		
Yandex.Market	2	0.7
Aliexpress	138	46.6
Ozon.ru	32	11
Amazon	2	0.7
Wildberries	18	6
Lamoda	104	35

PREFERABLE COUNTRY TO BUY		
USA	44	15
EU	64	22
CHINA	122	41
RUSSIA	66	22
WHY NOT TO CHOOSE THE NATIVE COUNTRY?		
High costs	66	23
Long waiting of the product	73	25
Inconvenient application	16	5
Low quality of a product	78	26
No needed product	63	21

Source: Author's compilation of primary data

The most popular mobile application for Russian respondents is AliExpress – almost 50% of respondents have chosen it as a primary mobile app that they are using. This consideration supports the idea said in the literature review about the rise of cross-border between Russia and China. Interesting idea here is that the main reasons why Russian customers are not buying products of Russian production are low quality, long waiting, high costs, and unavailability of the needs product. This information may be used further for managerial implications.

Table 6. Chinese profiles of respondents

Characteristics	Frequency	Percentage (% out of total N=304)
GENDER		
Male	72	24
Female	232	76
AGE		
18-35	285	94
36-55	19	6
HIGHER EDUCATION		
Yes	304	100
No	-	
OCCUPATION		
Student	217	71
Full-time	86	28
Freelancer	1	1
SALARY		
There is enough money for food, but buying clothes is difficult	37	12
Money suffices for food and clothes, but buying a refrigerator, TV, furniture is a problem	248	81.7

I can easily buy a refrigerator, TV, furniture, but for more I do not have money	18	6
I can easily buy a car, but for more - an apartment - there is no money	1	0.3
Difficult to answer	12	
SPENDING MONEY PER MONTH		
6-10%	47	16
>10%	257	84

Source: Author's compilation of primary data

Considering the Chinese respondents' demographics from the table 6, it may be concluded that it is relatively similar. Most respondents are women; the majority are in age from 18 till 35. In Chinese sample, there are more students that may be explained by the questionnaire distribution across the Tsinghua University. What is interesting in the demographics is that even though the majority of the respondents have a similar financial situation, then spend more than 10% of the salary per month for buying online – it tells about more digitalization of Chinese society.

Table 7. Chinese preferences in m-commerce

Characteristics	Frequency	Percentage (% out of total N=296)
POPULAR APPLICATION		
Taobao	212	70
Tmall	92	30
PREFERABLE COUNTRY TO BUY		
USA	1	0.3
CHINA	99	99.7
WHY NOT TO CHOOSE THE NATIVE COUNTRY?		
Low quality of a product	1	0.3

Source: Author's compilation of primary data

Talking about the chosen apps from the table 7, the majority use Taobao mobile application, and the minority – Tmall: they both belong to Alibaba Group. Moreover, as it was discussed in chapter 1, Chinese customers prefer to buy inside the country, and the results support this idea – 99% of respondents choose to buy products from China.

3.4.2. General findings

There are some interesting findings that were made during the analysis.

In the logistics block with the *exchange variable*, both Russian and Chinese customers are more inclined to the fact that there may be problems with the exchange of the product (Table 8) (Q: When purchasing through a mobile app, I may have problems with returning and exchanging the product).

Table 8. Logistics. Exchange variable

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	30	43	107	108	8
China	12	90	58	133	11

Source: Author's compilation of primary data

Moving on to the speed of the products' delivery, it is seen from the Table 9 that customers of both countries are not satisfied with this variable (Q: I am satisfied with the speed of the products delivery bought from the mobile application).

Table 9. Logistics. Speed variable

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	163	96	30	6	1
China	9	158	17	38	82

Source: Author's compilation of primary data

Moving on to the security part (Table 10), customers of both countries more or less sure that purchases via mobile applications are quite safety (Q: I believe that buying through mobile applications is very risky because of the undeveloped legislative system).

Table 10. Security and privacy. Laws

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	9	104	171	12	-
China	9	213	65	17	-

Source: Author's compilation of primary data

Going further to the trust variable, it is seen from the table 11 that customers of both countries, in the majority, do not trust to mobile applications for purchase. Though the distrust to them is much higher among Russian customers. (Q: I trust online applications to purchase products).

Table 11. General trust

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	215	81	-	-	-
China	11	181	16	42	54

Source: Author's compilation of primary data

Moreover, results in table 12 show that between the physical store and online store, respondents are difficult to answer what they choose. However, if to look closer at Chinese answer, it will be seen that there is almost an equality between neutral answer and positive answer. (Q: Between buying online and going to the "physical" store, I'll choose the first option).

Table 12. Trust. Type of shop

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	29	136	121	10	-
China	2	76	104	67	55

Source: Author's compilation of primary data

Comparing trust between website and mobile application from the table 13, customers of both countries are difficult to answer the question. (Q: I trust the mobile application more than the site of the same vendor).

Table 13. Trust. Application or website

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Russia	9	107	144	34	2
China	4	83	157	60	-

Source: Author's compilation of primary data

3.4.3. The hypotheses testing

*H1: The earlier time of delivery has a **positive** relationship with customer satisfaction*

Table 14. Correlation results between time variable and customer satisfaction

		Earlier time of delivery	Customer satisfaction
Earlier time of delivery	Pearson correlation	1	-0.243
	Sig. (2 – tailed)		.000
	N	600	600
Customer satisfaction	Pearson correlation	-0.243	1
	Sig. (2 – tailed)	.000	
	N	600	600

Source: Author's compilation of primary data

For the testing of the first hypothesis, we used the correlation analysis in SPSS. As it may be seen from the table above, the Sigma shows that the model is statistically significant ($p = .000 < 0.005$); however, we need to reject the hypothesis because the Pearson correlation shows the negative relation (-0.243).

H2: Chinese customers have a higher level of technology acceptance

First of all, to accept or reject the suggested hypothesis we would like to start from the beginning and support the idea that national culture positively affects the technology acceptance.

Table 15. Correlation results between culture and technology acceptance

		Culture_China	Technology acceptance_China
Culture_China	Pearson correlation	1	0.928
	Sig. (2 – tailed)		.000
	N	304	304
Technology acceptance_China	Pearson correlation	0.928	1
	Sig. (2 – tailed)	.000	
	N	304	304
		Culture_Russia	Technology acceptance_Russia
Culture_Russia	Pearson correlation	1	0.264
	Sig. (2 – tailed)		.000
	N	296	296
Technology acceptance_Russia	Pearson correlation	0.264	1
	Sig. (2 – tailed)	.000	
	N	296	296

Source: Author’s calculations of primary data

As it may be seen from the correlation analysis, here is an interesting finding: in China, it is clearly stated that there is a high correlation – 0.928, but in Russia, there is almost no correlation – 0.264. The results of Russia may be interpreted as Russia is a multinational country with different cultures and therefore, as it was mentioned previously, different cultures have a different relationship with technology acceptance. Thus, the majority of the respondents have a low relation.

The verification of the relation of that statement was needed because of the difference in samples with the differences of choice of the countries studied with authors previously studied the relation between culture and technology acceptance. And this analysis again showed that correlation between technology acceptance and culture directly depending on the culture.

The next step is the verification that masculine cultures have a higher level of technology acceptance than feminine countries. This statement, as it was discussed, have controversial result among researchers. Actually, proving this statement automatically proves the stated hypothesis that Chinese customers have a higher level of technology acceptance than Russian ones. For this step, we will use Mann-Whitney test.

Table 15. Mann-Whitney test for technology acceptance variable

	Country_group	N	Mean Rank	Sum of Ranks
Technology acceptance	China	304	360.25	109515.00
	Russia	296	239.14	70785.00
	Total	600		

Test Statistics

	Technology acceptance
Mann-Whitney U	26829.00
Wilcoxon W	70785.00
Z	-8.592
Sig. (1-tailed)	.000

Source: Author's calculations of primary data

As it may be seen from Mann-Whitney test, the mean rank for China is higher than for Russia ($360,25 > 239,14$), then the hypothesis 2 is accepted, and we can claim that Chinese customers have a higher level of technology acceptance than Russian customers.

H3: Chinese customers have higher trust in m-commerce shopping rather than Russian ones

Table 16. Mann-Whitney test for trust variable

	Country_group	N	Mean Rank	Sum of Ranks
Trust	China	304	311.23	94614.00
	Russia	296	289.48	85686.00
	Total	600		

Test Statistics

	Trust
Mann-Whitney U	41730,00
Wilcoxon W	85686,00
Z	-1.554
Sig. (1-tailed)	.012

Source: Author's calculations of primary data

As it may be seen from the Mann-Whitney test, the mean rank for China is higher than the mean rank for Russian ($311.23 > 289.48$) and the model is statistically significant; therefore, we may conclude that third hypothesis is accepted.

One of the reasons for this may be the also the culture factor, as it was discussed in the methodology part. It should be noted that culture is positively related to trust of the customers both in Russia and China, so there is a positive relationship between these two factors.

Table 17. Correlation results between culture and trust

		Culture_China	Trust_China
Culture_China	Pearson correlation	1	0.970
	Sig. (2 – tailed)		.000
	N	304	304
Trust_China	Pearson correlation	0.970	1
	Sig. (2 – tailed)	.000	
	N	304	304
		Culture_Russia	Trust_Russia
Culture_Russia	Pearson correlation	1	0.612
	Sig. (2 – tailed)		.000
	N	296	296
Trust_Russia	Pearson correlation	0.612	1
	Sig. (2 – tailed)	.000	
	N	296	296
		Culture_general	Trust_general
Culture_general	Pearson correlation	1	0.910
	Sig. (2 – tailed)		.000
	N	600	600
Trust_general	Pearson correlation	0.910	1
	Sig. (2 – tailed)	.000	
	N	600	600

Source: Author’s calculations of primary data

Moreover, it is already stated that collectivism positively related to trust to online shopping frequency. China is a country with a high level of collectivism (according to Hofstede) and “the degree of collectivism” is higher than in Russia (39 vs. 20); in addition, basing on the information of the effect of collectivism to trust to online shopping frequency, it also, in total, support the result of the first hypothesis.

H4: In China, there is a higher level of perceived security and privacy than in Russia

Table 18. Mann-Whitney test for security variable

	Country_group	N	Mean Rank	Sum of Ranks
Perceived security and privacy	China	304	269.00	98524.00
	Russia	296	332.85	81776.00
	Total	600		

Test Statistics

	Perceived security and privacy
Mann-Whitney U	35416.000
Wilcoxon W	81776.000
Z	-4539
Sig. (1-tailed)	.021

Source: Author’s calculations of primary data

As it may be seen from Mann-Whitney test, the mean rank for China is lower than for Russia (269 > 332.85), and it may be seen that the hypothesis is rejected, but that is not true. The

questions are formed in a way that the lower score the respondent choose, the higher level of perceived security he or she has. Therefore, we accept the hypothesis.

H5: Technology acceptance has a positive relationship with customer satisfaction in both Russia and China

Table 19. Correlation results between customer satisfaction and technology variable

		Customer Satisfaction_China	Technology acceptance_China
Customer Satisfaction_China	Pearson correlation	1	0.916
	Sig. (2 – tailed)		.000
	N	304	300
Technology acceptance_China	Pearson correlation	0.916	1
	Sig. (2 – tailed)	.000	
	N	304	300
		Customer Satisfaction_Russia	Technology acceptance_Russia
Customer Satisfaction_Russia	Pearson correlation	1	.579
	Sig. (2 – tailed)		.000
	N	296	296
Technology acceptance_Russia	Pearson correlation	.579	1
	Sig. (2 – tailed)	.000	
	N	296	296

Source: Author's calculations of primary data

For the testing of the fifth hypothesis, we used the correlation analysis in SPSS. As it may be seen from the table above, the Sigma shows that the model is statistically significant ($p = .000 < 0.005$) for both countries; however, we have different results: for China, we accept the hypothesis that technology acceptance has a positive relationship with customer satisfaction (the Pearson correlation equals to 0.916), but for Russia, we reject it, as there is very small correlation between these two factors (Pearson correlation equals to 0.579).

H6: When comparing Russia and China, the belonging to the culture have an impact on the trust

For the testing of the sixth hypothesis, we used the regression analysis in SPSS (table 20). We created three different regression models – for China only, for Russia, and for both countries. As it may be seen from the table above, we accept our hypothesis about the fact that belonging to the culture have an impact on the trust. Each separate regression model may be found in Appendix 5.

Table 20. Regression analysis for trust

	Model Russia	Model China	Model Both
DV	Trust	Trust	Trust
(Constant)	.110 (.002)	.454 (.000)	.118 (.002)
IV1 (Previous experience)	.556 (.000)	.997 (.000)	.813 (.000)
IV2 (Technology acceptance)	-.009 (.284)	.038 (.243)	.154 (.031)
IV3 (Logistics)	-.070 (.001)	.030 (.034)	.119 (.000)
IV4 (Perceived security and privacy)	.197 (.000)	1.117 (.003)	.005 (.048)
IV5 (App-design)	.008 (.307)	.200 (.000)	-.098 (.000)
IV7 (Culture)	-	-	.230 (.000)
Adjusted R Squared ANOVA sig.	.986 (.000)	.973 (.000)	.943 (.000)

Source: Author's calculations of primary data

H7: When comparing Russia and China, the belonging to the culture have an impact on the customer satisfaction

Table 21. Regression analysis for customer satisfaction

	Model Russia	Model China	Model Both
DV	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction
(Constant)	-.389 (.004)	-.301 (.039)	.129 (.016)
IV1 (Previous experience)	-.222 (.017)	-.576 (.000)	.162 (.022)
IV2 (Technology acceptance)	.046 (.003)	.858 (.000)	.116 (.000)
IV3 (Logistics)	.311 (.000)	.005 (.160)	.038 (.000)
IV4 (Perceived security and privacy)	.173 (.000)	.107 (.000)	.154 (.001)
IV5 (App-design)	.028 (.044)	.306 (.000)	.094 (.000)
IV6 (Trust)	1.057 (.000)	1.201 (.004)	.326 (.048)
IV7 (Culture)	-	-	.598 (.000)
Adjusted R Squared ANOVA sig.	.971 (.000)	.896 (.000)	.901 (.000)

Source: Author's calculations of primary data

For the testing of the seventh hypothesis, we used the regression analysis in SPSS. We created three different regression models – for China only, for Russia, and for both countries (the separate full regression model may be found in Appendix 6). As it may be seen from the table above, we accept our hypothesis about the fact that belonging to the culture have an impact on the customer satisfaction.

Summary of chapter 3

This chapter plays on of the key roles in this master thesis as it shows the main finding considering the factors affecting the trust and customer satisfaction among Russian and Chinese customers.

The data analysis was divided into two main parts: the first one is about the reliability of the scale and the second one is about data analysis itself. The data analysis part includes 4 subparts: a test of normality, demographics analysis, analysis of the general findings, and the hypotheses analysis.

All parts of the analysis were carried out with the use of IBM SPSS Statistics 24. The following testes were used in the analysis: for the testing of hypotheses 1, 2, 3, 5 the correlation analysis is used as there is a need to approve or disprove the existence of a relationship between variables. Moreover, for hypotheses 2, 3, 4 non-parametric Mann-Whitney test is used for identification of differences between independent variances. Finally, for hypotheses 6 and 7 regression analysis was used to find out the effects of independent variables on dependent one.

To sum up the findings of chapter 4, it is presented the summarized table of the tested hypotheses:

Table 21. The results of hypotheses testing

H1: The earlier time of delivery has a positive relationship with customer satisfaction	Rejected
H2: Chinese customers have a higher level of technology acceptance	Confirmed
H3: Chinese customers have higher trust in m-commerce shopping rather than Russian ones	Confirmed
H4: In China, there is a higher level of perceived security and privacy than in Russia	Confirmed
H5: Technology acceptance has a positive relationship with customer satisfaction in both Russia and China	Partly confirmed
H6: In case of Russia and China, the belonging to the culture have an impact on the trust	Confirmed
H7: In case of Russia and China, the belonging to the culture have an impact on the customer satisfaction	Confirmed
H1: The earlier time of delivery has a positive relationship with customer satisfaction	Rejected

4. Chapter 4: Discussion and managerial implications

This chapter discusses in which degree received findings correspond to previously analyzed literature related to the evaluation of customer satisfaction. Theoretical and practical contributions of this investigation will be provided. Finally, limitations of the study and directions for further research will be discussed.

4.1. Discussion of empirical findings

The purpose of this study was the adaptation of the model for customer satisfaction of Chinese and Russian customers on m-commerce market. To reach this purpose, two research goals were stated:

- What are the main factors affecting customer satisfaction in m-commerce market?
- Is there a difference between Chinese and Russian customers satisfactions models?

To answer these question, the regression models were conducted for both Russian and Chinese customers (figure 14).

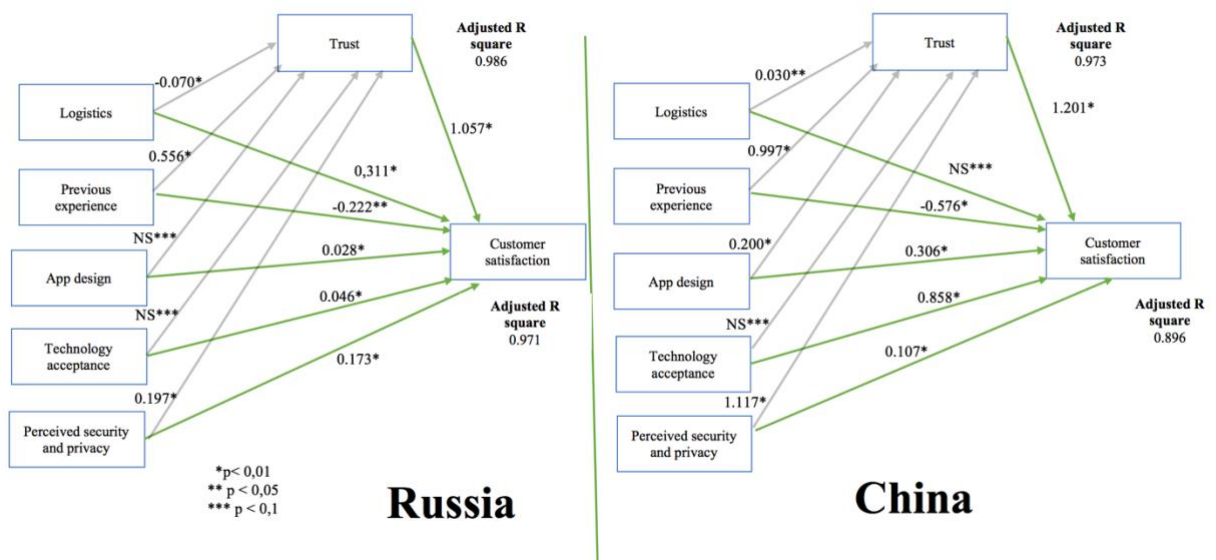


Figure 14. Models for customer satisfaction for Russian and Chinese customers in m-commerce markets

Source: made by author

As it may be seen from the figure 14, there are differences in Chinese and Russian customer satisfaction models. For both countries, different factors are significant.

Considering China, we may point out that there is the higher trust of Chinese to m-commerce and, consequently, the higher effect to the customer satisfaction than in Russia (the relation of technology acceptance and trust factors). There are several reasons for it: mobile payment apps such as WeChat, Alibaba's Alipay;

- Social media apps – in China, social media applications are used for the majority of everyday functions: paying bills, ordering or buying food, paying bills, booking appointments and so on. WeChat, for example, allows using all these functions.
- Review marketing in China word-of-mouth marketing is much more popular even though big-company advertisements (that, in fact, have lower trust);
- Cost-effective – the falling cost for mobile devices and mobile networks increase the investments in these industries:

Another interesting thing to note is that western buyers started to use Internet environment for shopping before the existence of mobile applications to purchase. However, in China there is another situation: as Internet came to China far later than in Western countries, many Chinese just skip the websites and moved towards the mobile application. As a result, mobile internet access and the development of m-commerce have a better position in China than it does in many countries. Even though Russia also can correspond to the idea of “bypassing” the use of desktop, the situation is slightly different compared with China. The thing is in the technological acceptance. Previously, we discussed that China has a higher level of technology acceptance than Russian, therefore, Chinese customers “faster” accepted the innovation compared with the Russian ones.

To continue with, research findings confirmed the assertion by Chen and Chou (2012), as it provided support for the hypothesis that Chinese customers have higher trust in m-commerce shopping rather than Russian ones. Also, as it was discussed in different papers (Teoh, et al. 2013), trust is the critical antecedent and is very important in mobile shopping. Trust is higher among Chinese customers, and it has the higher effect on the customer satisfaction as it may be seen from the presented models (figure 14). Such result may be explained by different variables that are included in the trust: first, it should be noted that the development of m-commerce is on a higher level than in Russia (it was stated in the second chapter), therefore, customers have more experience in m-shopping.

Additional observation is the logistics factor and its affection to both customer satisfaction and trust. The thing is that the time delivery affects the trust of m-vendor, and it may have further interesting managerial implications. What is more is that time of delivery is significant for Russian customers: both earlier and late delivery may have negative effect but customers are used to wait goods more than week, and most are partly satisfied with that. Such consideration may be explained by the “time distribution” of customers: while customers already decided how to plan their time and they know in what concrete day they get the goods, they are ok to wait relatively long period.

What is also should be taken into consideration is that when we are talking about trust in m-commerce, we are also talking simultaneously about trust to m-vendor (or e-vendor, talking in general). M-shoppers in this paper revealed that e-vendor's knowledge and experience are essential for developing trust. In addition, several shoppers mentioned that they tend to develop trust for e-vendors who are able to provide information about the quality of products, payment methods, and timely delivery. These findings reject the research results by Sumarto et al. (2012) while confirming the assertion by Chen and Chou (2012) that when customers get more information, they tend to have more faith in the e-vendor, which leads to high levels of satisfaction with online transactions.

Second, talking about the trust to m-commerce, we should not forget that it directly connected to such factor as perceived security and privacy. The presented model shows that in both countries perceived security affect trust and customer satisfaction and these finding are supported by the analyses by M. Breward et al. (2010) and Aanchal Aggarwal and Manmohan Rahul (2018). This paper shows that among Chinese customers there is the higher effect of perceived security and privacy than in Russia; this idea is also supported in the paper of Chang and Chen in 2009.

What is interesting here is that this paper showed that technology acceptance in both Russia and China does not influence to the trust of m-commerce but talking about the generalized model, it is shown, that technology acceptance is significant. The results of the generalized model correspond with the findings of Gefen D. (2003) and Pin L. (2013). Going back to the findings in Russia and China, we may assume that they are connected to the culture variable. Therefore, generally, as many studies claim, technology acceptance significant to the trust but in particular country, the situation may be different as it showed here. Moreover, this study again raises the idea that some cultural dimensions according to Hofstede have mixed results of impact to technology acceptance (Gong et al. 2007; Stump et al. 2010; Haapaniemi & Makinen 2009; Jobs & Gilfoil 2012). To our mind, the mixed results are connected with the blurring of the countries' identifications according to Hofstede's dimensions. The thing is that because of constant changes in society some nations may be changed a little bit in cultural self-determination due to pushing from more developed countries (that set trends in the world-wide society), therefore, the respondents' answers to culture block may vary significantly even for people from one country.

In addition, the results showed that technology acceptance is a positive predictor for customer satisfaction in both Russian and China that aligns to the results of Carol C. Bienstock (2010). PU and PEOU are both significant for discussed countries even though there is a higher influence in China. Again, such observation is explained by the higher level of technology acceptance in China and cultural effects. This study is cross-cultural one and therefore because of

the cultural differences between diverse nations numerous factors may be important in the decision to adopt IT innovations. From the review presented in the previous chapters, it is apparent that most research has focused on national factors in IT adoption. These include uncertainty avoidance, individualism/collectivism, and masculinity/femininity.

Moving on to application design, it is seen from the figure 14 that in Russia, there is no relationship between app-design trust, but there is a relationship between app-design and customer satisfaction. Such results may be explained by the following logic: as it was discussed and proved that trust to m-commerce have lower level than in China (as table 11 shows, we could say that Russian do not trust online shops at all) then content, information, visualization do not effect at all to the perception of customer of mobile-app from the point of view of trust. However, these characteristics, according to data, affect the customers' perception from the point of view of satisfaction. In China, in this paper, there is a different situation: even though the majority of respondent do not trust to m-shops, around 20-25% do trust, and therefore, as it was discussed, content, relevant information, in this case, have an impact to m-vendor (Chau et al. 2000; Hoffman, Novak and Peralt 1999; Szymanski and Hise 2000; Park and Kim, 2003).

Considering previous experience variable, we see that for China and Russia it is both significant for trust and customers satisfaction; however, an interesting case when it has a negative beta for customer satisfaction in China. As it is mentioned in this study, China has a prominent condition in development of mobile applications and m-commerce, precisely. Therefore, it leads to the vast majority of different m-shops and not all of them are of good quality. In this case, the previous experience may have a negative impact on the customer satisfaction as a customer, starting using a new application, expects to be disappointed. Such thing is rarely in not saturated markets as customers do not have a lot of alternatives to compare; however, in Russia, it is also observed the negative beta. In this case, it is explained by the opposite situation, as the market is only in its developing stage, vendors do not really understand the factors that impact the satisfaction of the customers. Thus, the current service or presented mobile applications may not satisfy the needs and wishes of the customer; therefore, the previous experience may be negative.

4.1.1. Theoretical contribution

There are several aspects in which this paper contributes to contemporary academic literature. First of all, it expands the theoretical research dedicated to the analysis of factors affecting customer satisfaction and trust.

Second, it covers the gap, stated in the introduction: the lack of customer satisfaction model that could include all factors, considering cultural variable, that corresponds to the requirements of m-commerce environment in the context of emerging markets. The majority of

current studies are focusing only on e-commerce markets and automatically imply the similar results to m-commerce markets. However, in reality, the situation is quite different because website and mobile applications are a different technology and, therefore, the attitude of customers is different.

Thirdly, current academic papers are dedicating only to already studied factors and do not include new ones that may affect substantially results. This study includes new factors in the model and unites factors that were not gathered together previously as they precisely correspond to requirements of m-commerce market.

Finally, it provides investigation conducted on Russian and Chinese markets, overcoming lack of cross-cultural studies and studies in emerging market. Every market, country, and culture has its own peculiarities, but most of the studies of customer satisfaction overgeneralize the findings and results.

4.2. Managerial implications

Considering the internal country competition, Russian companies should, primarily, focus on trust, logistics, perceived security, and privacy. To a less degree, they may focus then on technology part and application design.

In case of perceived security and privacy, as representatives of HUA culture, Russian customers tend to avoid risks, therefore to increase customer satisfaction companies should put additional signs and policies to show the clients that their information will not be transmitted to third parties, that their personal data is under security. During an online transaction, the signs of not giving anyone the codes should be also included.

In case of a trust, marketers can adopt different marketing strategies on their shopping mobile application to encourage repeat visits and purchase. The technical competence of a system can be measured by such parameters as the speed and reliability of the transaction and the availability of necessary information (Lee and Turban 2014)

In case of logistics, marketers could improve the exchange products policy: it may be either the refund of money for the product or the good service that could suggest replacement of the product if it does not satisfy the client. Moreover, for marketers, it is better to point it precise dates of products delivery (as precise as it is possible); it should be noted that the earlier delivery as well as late delivery both have a negative impact to customer satisfaction for Russian customers.

In case of application design, the mandatory parts should be included on the product page: reviews of previous customers, only relevant information including prices and alternatives product with visualization to compare the chosen product with other options. The application itself should be relatively simple, with user-friendly interface and with visualization parts of the design.

However, the application should be overloaded with the enormous number of functionalities as it will confuse the customer.

Considering the expansion of Russian companies to Chinese markets, the following factors should be considered: application design, technology acceptance, trust, and perceived security and privacy.

In case of application design, the focus should be on simplicity and speed of all processes (filling in information, different methods of payment (including the most popular ones – via Wechat and AliPay). Moreover, according to the questionnaire, Chinese customers prefer online platforms rather than separate stores because of the opportunity to communicate with m-vendor directly. Therefore, companies should focus on creating the communication channels with customers: for example, if they have a separate store, they may have a channel “blog” on We-Chat, where the communication process may be implemented.

In case of a trust, it is better not to create a separate mobile application with the products because as the analysis showed Chinese customers prefer buying from the native m-shops due to confidence in delivery and quality. Therefore, for Russian customer willing to expand to the Chinese market, it is preferable to join to one of the existing shops and sell products as a partner or unite with one of the Chinese shops – “mimicry” strategy.

In case of perceived security and privacy, it is preferable to get to know the policies that are used in China and thoroughly following to them. However, as it was mentioned above, the best option will be to unite to one of the Chinese already existing m-shop: because even if Russian developer and businesspeople will come with new app – it will be considered as a foreign one, and according to the results and theory discussed above – it will decrease the trust to the application.

4.3. Limitations and further researches

Current research did not take in consideration the legal part of the considered question. As cross-border trade lies in the focus of the import-export relationship. There may be laws that can change the overall situation dramatically. Therefore, for further studies, it is preferable to analyze and assess the effect of upcoming laws on the m-commerce markets of these countries.

In addition, considering the logistics variable, only *time delivery* and *exchange of products* variables were analyzed thoroughly. For more detailed results, it would be more comprehensive to consider the overall logistics infrastructure of both countries and assess their impact on customer satisfaction.

Furthermore, only three of Hofstede’s (2011) cultural dimensions were examined in this project. Lastly, cultural dimensions were assigned to participants in the quantitative study based on Hofstede’s (2011) dimensions of national culture. In cultural studies assigning cultural

dimensions to individuals based on national aggregates could be viewed as a limitation in cross-cultural research.

Next, customer interface quality is a multi-faceted concept, but we could not include its every component, and just focused on information and character that were most related to the online context. The results yielded could differ should different components be applied.

Finally, regarding post-consumption intention, we just discussed trust and customer satisfaction. It would be more comprehensive if the study addressed loyalty and word-of-mouth, as they too are major drivers of success in e-commerce (Anderson and Mittal 2000; Reichheld, Markey & Hop-ton2000).

Summary of chapter 4

This chapter plays the key role in this master thesis as it contains the main findings, results, and discussions about determinants of customer satisfaction on Russian and Chinese m-commerce markets.

First, the model of customer satisfaction for two countries are presented showing the significant and not significant factors. The models show that actually culture belonging affects a lot to the factors impact both on trust and customer satisfaction.

Second, it was discussed the difference of factors significance in both China and Russia: it was found out that some factors (for example, application design and logistics) behave completely different in countries and such results are explained by culture belongings. In addition, during the discussion results, the question of the current validity of cultural dimensions of Hofstede is placed. The thing here is that the world is changing pushing the beliefs and people's behavior to change, therefore, current identification of national culture dimension may not fully reflect the current characteristics of the country.

Furthermore, the theoretical contribution of this master theses is positioned. This paper expands the theoretical research dedicated to the analysis of customer satisfaction, adapts the model for customer satisfaction evaluation of Chinese and Russian customers on m-commerce market, adapts the model for customer satisfaction evaluation of Chinese and Russian customers on m-commerce market and provides investigation conducted on Russian and Chinese markets, overcoming lack of cross-cultural studies and studies in emerging market.

In addition, managerial implications for Russian companies to increase customer satisfaction on Russian m-commerce market (including the situations when competing with Chinese companies) and to create and increase customer satisfaction on Chinese m-commerce market are presented.

Finally, the limitations and further prospects for studies are discussed.

Conclusion

This master thesis dedicated to the topic “Determinants of customer satisfaction on Chinese and Russian m-commerce markets” consists of four chapters.

Chapter one identifies key characteristic and observables differences in Russian and Chinese m-commerce markets and key limitations of current existing literature on the topic. The first subchapter focuses on Russian condition of e- and m-commerce markets. Within it, the volumes of the online trade are pointed, and the perception and attitude of Russian customers to Chinese products are discussed. The second subchapter explores the current condition of Chinese e- and m-commerce markets. Within it, the same logic as in the previous subchapter is used. In the third subchapter, the theoretical frameworks of customer satisfaction are analyzed. It is worth noting that the majority of the articles and papers are dedicated only to e-commerce while m-commerce plays by different rules, therefore the same policies may not be implemented to these different industries, even though they are adjacent.

Based on the chapter one the research gap and research questions were formulated to guide the following steps of the study:

Research gap: The lack of customer satisfaction model that could include all factors, considering cultural variable, that corresponds to the requirements of m-commerce environment in the context of emerging markets

RQ 1: What are the main factors affecting customer satisfaction in m-commerce market?

RQ 2: Is there a difference between Chinese and Russian customers satisfactions models?

Chapter two scrutinizes the research methodology that was applied in this study. First of all, the theoretical framework was presented pointing out seven major factors that influence customer satisfaction is studied. Moreover, within this framework three models are contained: the effects of factors on customer satisfaction (main model), the effect of factors on trust, and the relationship between culture and technology acceptance. Second, based on the literature review and additional information analyzed in the chapter, seven hypotheses were formed. Research strategy and methods were proposed and justified. The empirical study is quantitative by its nature, cross-cultural and conducted with the use of an online questionnaire. The choice of respondents and the sampling methods are also discussed and stated. In addition, this chapter also describes the scale development of the questionnaire. Finally, it is also stated that questionnaire was filled by 650 of respondents, 600 of which are fitted the criterion of having previous experience in m-commerce shopping and finished the questionnaire.

Chapter three contains the main findings and results. The data analysis, generally, includes two parts: the first one is dedicated to the reliability test and the second one – the analysis itself. The second part includes 4 subparts: a test of normality, demographics analysis, analysis of the

general findings, and the hypotheses analysis. Test of normality is presented by Kolmogorov-Smirnov and Shapiro-Wilk tests, demographics – by descriptive statistics, and testing hypotheses – by correlation analysis, Mann-Whitney test, and regression analysis.

The last chapter, *chapter four*, considers the discussion of results. The results of pointed tests show that in case of Russia and China there are some differences in customers satisfaction models. For example, it is clear that for customer satisfaction in China, logistics is not a significant factor while for Russia all presented factors are important. During the discussion, it is pointed out that these differences may be explained by the culture belonging (the aggregate effect of culture, technology acceptance, trust and other factors). In case of the unified model, all seven factors are significant to determine the customer satisfaction level. Considering the most affecting one, according to beta, culture and trust factor are the most influential to the customer satisfaction.

Finally, recommendations how Russian vendors may increase the customer satisfaction for both Russian and Chinese m-users on Russian and Chinese m-commerce markets are developed.

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Appendix 1. Russian version of the questionnaire

1. Совершали ли Вы в последние полгода онлайн-покупку через мобильное приложение? (не учитывая доставку **готовой** еды из ресторанов и покупку онлайн фильмов и музыки)
 - a. Да
 - b. Нет
2. Какие группы товаров Вы чаще всего покупаете через онлайн приложения? (Выберите три категории товаров)
 - a. Бытовая техника
 - b. Одежда и обувь
 - c. Автозапчасти
 - d. Парфюм и косметика
 - e. Товары для дома
 - f. Спорттовары
 - g. Продовольственные товары (сюда не входит заказ готовой еды из ресторанов/кафе и т.д)
 - h. Ювелирные украшения и бижутерия
 - i. Книги
 - j. Другое (указать)
3. Укажите приложение, которое Вы чаще всего используете при покупке онлайн?
 - a. Яндекс.Маркет
 - b. Aliexpress
 - c. Avito
 - d. Ozon.ru
 - e. Amazon
 - f. Groupon
 - g. Wildberries
 - h. Lamoda
 - i. Другое (указать)
4. Вы бы предпочли совершить покупку через приложение магазина, принадлежащему какой стране/группе стран? (выберите один вариант)
 - a. США
 - b. Европа (ЕС)
 - c. Великобритания
 - d. Китай

e. Россия

f. Другое (укажите другую страну/группу стран)

Оцените по каждому из следующих суждений степень своего согласия или несогласия (1 – полностью не согласен; 5 – полностью согласен):

5. Я скорее куплю что-то через приложение, которым уже пользовался, нежели чем буду искать новое приложение
6. Основываясь на опыте, я знаю, что онлайн магазины всегда выполняют свои обещания клиентам
7. Мне нравится узнавать, как что-то работает
8. Мне нравится экспериментировать с новыми способами ведения обычных дел
9. Я с удовольствием попробую новый продукт
10. Мне нравится находиться рядом с людьми, которые стараются узнать и попробовать новые товары
11. Я часто ищу информацию о новых продуктах и инновациях
12. Я много знаю о проведении покупок через Интернет
13. Использовать интернет для покупки – это легко
14. При покупке в новом приложении я быстро разбираюсь в нем и нахожу то, что мне нужно
15. Покупка через приложение не требует много усилий
16. Проведение оплаты при покупке товара через мобильное приложение – это легко
17. Приложения для покупки товаров приведут к вторжению в личную жизнь
18. Развитие торговли через мобильные приложения – это пустая трата времени и ресурсов
19. Мобильные приложения удобны для поиска товаров.
20. Мобильны приложения удобны для покупки товаров.
21. Покупка товаров через мобильные приложения делают мою жизнь лучше
22. Существующие мобильны приложения для покупок соответствуют новейшим технологиям
23. При покупке через мобильное приложение могут возникнуть проблемы с возвратом и заменой товара
24. При покупке через мобильные приложения приходится долго ждать доставку товара
25. Когда я делаю покупку через мобильное приложение, ее всегда доставляют в указанный срок
26. Я доволен (довольна), когда заказанный товар приходит раньше указанного срока

27. Меня устраивает скорость доставки товаров, купленных через мобильное приложение
28. Я покупаю через мобильные приложения, потому что могу делать это в любое удобное для меня время
29. При покупке товара через мобильное приложение я оплачиваю банковской картой или другим онлайн-переводом
30. При покупке товара через мобильное приложение я его оплачиваю наличными деньгами курьеру при доставке
31. Меня устраивает способ оплаты, которым я пользуюсь
32. При покупке через мобильное приложение, я чувствую страх или неуверенность вводя свои персональные данные (имя, e-mail, др.)
33. При проведении онлайн платежа в мобильном приложении я чувствую угрозу безопасности своих данных
34. При покупке через мобильные приложения моя личная информация может быть передана третьим лицам
35. При покупке через мобильные приложения я беспокоюсь, что с меня могут снять больше денег, так как продавец знает мои банковские данные
36. Я считаю, что покупки через мобильные приложения – это очень рискованно ввиду неразвитой законодательной системы о безопасности в интернете
37. Я бы предпочла анонимные системы оплаты при покупке через мобильное приложение
38. Я считаю, что покупка через мобильное приложение более безопасна чем покупка через сайт
39. Я воспользуюсь мобильным приложением для покупки, если его дизайн выглядит привлекательным для меня
40. Я воспользуюсь приложением для покупки, если приложение предоставляет полную и релевантную информацию (включая цены) об интересующих меня товарах
41. Я воспользуюсь приложением для покупки, если оно позволяет пользователям оставлять отзывы на товары
42. Я воспользуюсь мобильным приложением для покупки, если там легко ориентироваться
43. Я не буду использовать мобильное приложение для покупки, если непонятен интерфейс
44. Я выбираю те мобильные приложения для покупки, в которых легко и быстро можно заполнить информацию о себе, детали заказа и быстро оплатить

45. Я доверяю онлайн приложениям для покупки товаров
46. Между покупкой онлайн и походом в «физический» магазин, я выберу первый вариант
47. Я больше доверяю мобильному приложению, чем сайту одного и того же магазина
48. При покупке у незнакомого продавца я предпочту совершить покупку через мобильное приложение, нежели чем через сайт
49. Я доверяю мобильным приложениям для покупки, в которых представлены отзывы покупателей о товарах
50. Я доверяю мобильному приложению для покупки, если там возможен бесплатный возврат товара в первые несколько дней
51. Я считаю, что решение покупать онлайн через мобильное приложение – правильное
52. В целом, я удовлетворен(а) работой существующих мобильных приложений для покупок и их уровнем сервиса
53. Если я буду покупать онлайн снова, я точно совершу покупку через приложение и не буду думать о возвращении к "физическому" магазину
54. Мне не нравится, что во многих мобильных приложениях для покупок нельзя пообщаться «онлайн» с продавцом
55. Мне не нравится, что в мобильных приложениях для покупок много рекламы
56. Один человек должен пожертвовать своими интересами для группы
57. Человек должен придерживаться группы, несмотря на сложности
58. Успех группы более важен, чем индивидуальный успех.
59. Благосостояние группы более важно, чем индивидуальные награды.
60. Принятие в качестве члена группы более важно, чем автономия и независимость
61. Важно иметь подробные инструкции, чтобы я всегда знал, что я должен делать
62. Важно внимательно следить за инструкциями и процедурами.
63. Лучше попасть плохую ситуацию, о которой я знаю, чем иметь находиться в неопределенности.
64. Я сочувствую тем, кто не побеждает, и я завидую успеху других
65. Решения должны основываться на консенсусе (/в согласии)
66. Противоречия и небольшие конфликты ведут к увеличению продуктивности
67. Хорошее качество жизни важно, как для мужчин, так и для женщин
68. Мужчины должны быть сосредоточены на материальном успехе, и женщины должны заботиться о благополучии других людей
69. Укажите, пожалуйста, Ваш пол
 - a. Мужчина

b. Женщина

70. Укажите, пожалуйста, ваш возраст:

a. Меньше 18

b. 18-35

c. 36-55

d. 56 и старше

71. Имеете ли Вы высшее образование?

a. Да

b. Нет

72. Укажите Ваш основной род занятий:

a. Студент

b. Предприниматель

c. Работаю на полную ставку

d. Фрилансер

e. Не работаю

f. Другое

73. Какое утверждение в большей степени соответствует Вашему положению?

a. Едва свожу концы с концами. Денег не хватает даже на продукты

b. На продукты денег хватает, но покупка одежды затруднительна

c. Денег хватает на продукты и одежду, но покупка холодильника, телевизора, мебели – для меня проблема

d. Я могу без труда купить холодильник, телевизор, мебель, но на большее денег нет

e. Я могу без труда купить автомобиль, но на большее – квартиру, дачу - денег нет;

f. Я могу позволить себе практически все: машину, квартиру, дачу и многое другое

g. Затрудняюсь ответить

74. Сколько примерно в процентах от ежемесячного дохода Вы тратите на онлайн покупки (не включая доставку еды и заказ онлайн услуг)?

a. Менее 1%

b. 2-5%

c. 6-10%

d. более 10%

Appendix 2. Chinese version of the questionnaire

您好！为了更多了解中国消费者对手机app网购态度和找到需要提高的地点进行本次调查。

本调查是匿名的，没有个人数据，所有的结果将只用于聚合的形式。调查的时间只需要5到15分钟。谢谢

1. 您最近半年有通过手机购物软件买东西吗？（不包括外卖或在线音乐/电影）

2 您通过app最多买什么商品？（3可选）

- 家用电器
- 衣服和鞋子
- 汽车配件
- 香水和化妆品
- 家庭用品
- 体育用品
- 食品（外卖不算）
- 珠宝首饰
- 书
- 其他（注明）

3. 请选择您使用最多的购物app

- 淘宝
- 天猫
- 京东
- 拼多多
- 唯品会
- Amazon

4. 您希望通过哪个国家（国家组）的app买东西？

- 美国
- 欧洲
- 英国
- 中国
- 俄罗斯
- 其他

4A. 如果您没选择中国，请说明为什么不想用中国app买东西？

- 价格高
- 物流慢
- 付款方式不方便
- 质量低
- app操作不方便
- 其他

请对下面的观点指出自己同意或者不同意的看法。给每个观点评定从1到5份，1份-完全同意，5份-完全不同意

5. 我会通过已经熟悉的软件买东西，而不会找新的软件

6. 根据我的经验，我购买的商品与实物相符

7. 我喜欢研究怎么使用新的东西

8. 我喜欢尝试新的东西

9. 我很乐意尝试新产品

10. 我喜欢多接触那些经常会尝试新产品的人

11. 我经常找关于新产品的信息
12. 我很熟悉网购方面的知识
13. 用互联网购物很简单
14. 使用新的软件时很快就可以找到我想要的东西与功能
15. 有app买东西不费力
16. 用购物app付款很简单
17. 购物app会影响隐私
18. 发展app购物通道都是浪费时间和资源
19. 用手机 app搜索东西很简单
20. 购物手机 app很方便
21. 购物手机 app提高我的生活质量
22. 现在的购物手机 app符合最新的技术
23. 用app购物有退货或退款问题的危险
24. 网购的物流慢，货到达的时间比较长
25. 我用app买的货都会按时到达。
26. 我已经习惯了等待一周以上我货的到达。
27. 我很满意网购物流的速度。
28. 我用 app买东西是因为可以自己选择我最方便的时间
29. 在app购物时我用银行卡或其他在线方式付款。
30. 用 app 购物时我选择货到付款方式。
31. 我满意我使用app的付款方式。
32. 在购物app输入个人的信息（名字，邮箱等等）时会觉得心里不平安
33. 用购物app付款会觉得个人信息有危险

34. 我觉得用app付款时我个人信息会暴露。
35. 用 app付款我担心商家会偷我的钱，因为商家知道了我个人信息。
36. 我认为用app购物危险很大，因为立法体系无法解决网购安全的问题
37. 在app购物时我会选择匿名支付方式
38. 我认为通过app买东西比网站会更安全
39. 如果app设计的特别好看，我就会用它买东西
40. 如果app里商品的信息完整（包括价格），我就会用 app买东西
41. 如果app有评价和反馈的功能，我就会用 app买东西
42. 如果app操作简单，我就会用它买东西
43. 如果app的界面不方便，我就不会用它买东西
44. 我会选择输入信息和付款速度快的软件。
45. 我信任手机购物app。
46. 如果要选择在线买东西或去商店购物，我会选择第二。
47. 如果商家有网站和软件，我更信任软件
48. 在不熟悉商家情况下我会通过软件买东西，而不是网站
49. 我相信有客户评价的软件
50. 我更相信有退货服务的软件
51. 我认为通过手机 app购物是对的
52. 总体来说我满意存在的购物软件
53. 下次购物时我会考虑选择app软件还是回到商店买。
54. 我不喜欢好多软件没有在线联系客服的功能
55. 我不喜欢购物软件有很多广告
56. 为了团队，牺牲自己的利益

57. 有困难时人还是要跟着团队去
58. 团队成功比个人成功重要
59. 团队收获比个人收获重要
60. 团队里个体的认可比自由和独立重要
61. 有细节的说明很重要，我要知道我该做什么事情
62. 遵守规程很重要
63. 我觉得陷入困境（但是我很清楚我该怎么办）比处在不明的情况中好
64. 我会同情那些没有争取胜利，我也会嫉妒他人的成功
65. 一个决定是通过讨论或争论来取得的
66. 矛盾和冲突也会提高生产效能
67. 男女都注重质量高的生活
68. 男人应该追求物质福利，而女人应该照顾其他人的安宁
69. 您的性别
- A) 男性
- B) 女性
70. 您的年龄
- A) 少于18岁
- B) 18-35岁
- C) 36-55岁
- D) 多于56岁
70. 您有大学教育吗
- A) 有
- B) 没有

71. 请选择您的职业

- A) 学生
- B) 企业家
- C) 全职工作
- D) 自由职业
- E) 不工作
- F) 其他

73. 哪个见解能描述您现在的情况？

- A) 勉强糊口，甚至买吃的钱都不够
- B) 买食品钱够，但买衣服有一些困难
- C) 买食品，衣服钱够，但是买电视，冰箱，家具有一些问题
- D) 我有钱可以买电视，冰箱，家具但没有更多的钱。
- E) 我有钱可以买车, 但买不了房子
- F) 我想要的几乎都可以买 (车子，房子)
- G) 难以回答

74. 按您一个月的收入，请选择您购物量？

- A) 少于1%
- B) 2-5%
- C) 6-10%
- D) 多于10%

Appendix 3. Scale development

Table 3.1. General preferences of the customers

Section	Variable	SPSS name	Scale	Form of answer
Control question	Previous experience in m-commerce	Suitability	Nominal	Two-answer
Questions about the customers preferences in m-commerce	Product categories	Product_category	Nominal	Multiple answer
	Application	Application	Nominal	Multiple answer
	Country choice	Country_choice	Nominal	Multiple answer

Source: Author's compilation of primary data

Table 3.2. Measures of all variables

Section	Measure	Source	Variable name
Previous experience	I would rather buy something via an application I already used, rather than searching for a new application	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_1
	Based on experience, I know that online stores always fulfill their promises to customers	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_2
	I like to learn how something works	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_3
	I like to experiment with new ways of doing ordinary things	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_4
	I will gladly try a new product	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_5
	I like being close to people who try to learn and try new products	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_6
	I often look for information about new products and innovations	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_7
	I know a lot about online shopping	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	PE_8
Technology acceptance	Usage the Internet to purchase is easy	Wu and Wang,2005	TA_1
	When buying in a new m-application, I quickly understand it and find what I need	Wu and Wang,2005	TA_2
	Purchase through the m-application does not require much effort	Wu and Wang,2005	TA_3
	Carrying out payment when buying goods through a mobile application - it's easy	Wu and Wang,2005	TA_4
	Applications for the purchase of goods will NOT lead to an intrusion into privacy	Wu and Wang,2005	TA_5
	The development of trade through mobile applications is NOT a waste of time and resources	Wu and Wang,2005	TA_6
	Mobile applications are convenient for searching for products	Wu and Wang,2005	TA_7
	Mobile applications are convenient for buying goods	Wu and Wang,2005	TA_8

	Buying goods through mobile applications make my life better	Wu and Wang,2005	TA_9
	Existing mobile applications for purchases correspond to the latest technologies	Wu and Wang,2005	TA_10
Logistics	When purchasing through a mobile application, you may experience problems with returning and replacing the product	Meybody, 2015	LOG_1
	When buying through mobile applications you have to wait a long time for delivery of the goods	Meybody, 2015	LOG_2
	When I make a purchase through a mobile application, it is always delivered within the specified period	Meybody, 2015	LOG_3
	I am pleased when the ordered goods arrive earlier than the specified period	Meybody, 2015	LOG_4
	I am satisfied with the speed of delivery of goods purchased through a mobile application	Meybody, 2015	LOG_5
	I buy via mobile applications, because I can do it at any time convenient for me	Meybody, 2015	LOG_6
Perceived security and privacy	When buying through a mobile application, I feel fear or insecurity by entering my personal data (name, e-mail, etc.)	Wu and Wang,2005	SEC_1
	When carrying out online payment in a mobile application, I feel a threat to the security of my data	Wu and Wang,2005	SEC_2
	When purchasing through mobile applications, my personal information can be transferred to third parties	Wu and Wang,2005	SEC_3
	When buying through mobile applications, I'm worried that more money can be withdrawn from me, since the seller knows my bank details	Wu and Wang,2005	SEC_4
	I believe that buying through mobile applications is very risky because of the undeveloped legislative system on Internet security	Wu and Wang,2005	SEC_5
	I would prefer anonymous payment systems when purchasing through a mobile application	Wu and Wang,2005	SEC_6
	I believe that buying through a mobile app is safer than buying through a website	Wu and Wang,2005	SEC_7
Application design	I will use a mobile application for purchase, if its design looks attractive to me	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014 Thakur and Summey, 2007	DES_1
	I will use the application to purchase if the application provides complete and relevant information (including prices) about the products of interest to me	(Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014) Thakur and Summey, 2007	DES_2
	I will use the purchase application if it allows users to leave feedback on products	(Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014) Thakur and Summey, 2007	DES_3
	I will use a mobile application for purchase, if it is easy to navigate there	Nguyen Thi Tuyet Mai and Takahashi	DES_4

		Yoshi, 2014	
		Thakur and Summey, 2007	
	I will not use the mobile app for purchase if the interface is not clear	(Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014)	DES_5
		Thakur and Summey, 2007	
	I choose those mobile applications for purchase, in which you can easily and easily fill out information about yourself, order details and quickly pay	(Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014)	DES_6
		Thakur and Summey, 2007	
Trust	I trust mobile applications for the purchase of goods	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
	Between buying online and going to the "physical" store, I'll choose the first option	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
	I trust the mobile application more than the site of the same store	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
	When buying from an unfamiliar seller, I prefer to make a purchase through a mobile application, rather than through the site	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
	I trust mobile applications for purchase, which contain customer reviews of products	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
	I trust the mobile application for purchase, if there is a free return of goods in the first few days	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	TR_1
Customer Satisfaction	I believe that the decision to buy online via a mobile application is correct	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	CS_1
	In general, I am satisfied with the work of existing mobile applications for purchases and their level of service	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	CS_2
	If I buy online again, I will definitely make a purchase through the m-application and will not think about going back to the "physical" store	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	CS_3
	I do not like that in many mobile applications for shopping you can not communicate "online" with the seller	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	CS_4
	I do not like that there are a lot of ads in mobile applications for shopping	Nguyen Thi Tuyet Mai and Takahashi Yoshi, 2014	CS_5
	One person must sacrifice their interests for the group	Hofstede (2011)	CUL_1
	A person must adhere to a group, despite the difficulties	Hofstede (2011)	CUL_2
	The success of the group is more important than individual success	Hofstede (2011)	CUL_3
	The welfare of the group is more important than individual awards	Hofstede (2011)	CUL_4
	Admission as a member of a group is more important than autonomy and independence	Hofstede (2011)	CUL_5

Culture	It is important to have detailed instructions so that I always know what I should do	Hofstede (2011)	CUL_6
	It is important to closely follow the instructions and procedures	Hofstede (2011)	CUL_7
	It's better to get into a bad situation, which I know about, than to be in uncertainty	Hofstede (2011)	CUL_8
	I sympathize with those who do not win, and I envy the success of others	Hofstede (2011)	CUL_9
	Decisions should be based on consensus	Hofstede (2011)	CUL_10
	Contradictions and small conflicts lead to increased productivity	Hofstede (2011)	CUL_11
	A good quality of life is important for both men and women	Hofstede (2011)	CUL_12
	Men should be focused on material success, and women should take care of the well-being of others	Hofstede (2011)	CUL_13

Source: Author's compilation of primary data

Appendix 4. Reliability test

Table 4.1. Reliability statistics

Cronbach's alpha	N of items
.935	8

Source: Author's calculations of primary data

Table 4.2. Item statistics

Variable	Mean	St, Deviation	Number
Previous experience	2.3606	.36014	600
Technology acceptance	2.4707	.38943	600
Logistics	2.9081	.43252	600
Perceived security and privacy	2.3949	.24542	600
Application design	3.2519	.49507	600
Trust	2.8478	.45472	600
Customer Satisfaction	3.3967	.54841	600
Culture	3.0057	.48840	600

Source: Author's calculations of primary data

Table 4.3. Item statistics

Item	Cronbach's alpha
Previous experience	.919
Technology acceptance	.929
Logistics	.932
Perceived security and privacy	.941
Application design	.944
Trust	.912
Customer Satisfaction	.915
Culture	.915

Source: Author's calculations of primary data

Appendix 5. Regression analysis for dependent variable “trust”

Table 6.1. Model Summary for China

Model	R	R Square	Adjusted R Squared	St. Error of the estimate
China	.987	.973	.973	.09180

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	91.473	5	18.295	2171.058	.000
Residual	2.511	298	.008		
Total	93.984	303			

	Unstandardized B	t	Sig.
(Constant)	.454	7.518	.000
Previous experience	.997	17.960	.000
Technology acceptance	.038	1.170	.043
Logistics	.030	2.127	.034
Perceived security	1.117	4.690	.003
App-design	.200	5.131	.000

Table 6.2. Model Summary for Russia

Model	R	R Square	Adjusted R Squared	St. Error of the estimate
Russia	.990	.986	.986	.04450

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	27.762	5	5.552	2804.148	.000
Residual	.574	290	.002		
Total	28.337	295			

	Unstandardized B	t	Sig.
(Constant)	.110	.041	.002
Previous experience	.556	.045	.000
Technology acceptance	-.009	.010	.284
Logistics	-.070	.023	.001
Perceived security	.197	.048	.000
App-design	.082	.009	.307

Table 6.3. Model Summary for general variance

Model	R	R Square	Adjusted R Squared	St. Error of the estimate
General	.971	.944	.943	.10850

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	116.875	6	19.479	1654.584	.000
Residual	6.981	593	.012		
Total	123.856	599			

	Unstandardized B	t	Sig.
(Constant)	.118	3.110	.002
Previous experience	.813	25.471	.000
Technology acceptance	.154	7.416	.031
Logistics	.119	8.350	.000
Perceived security	.005	.180	.048
App-design	-.098	-6.205	.000
Culture	.230	9.988	.000

Appendix 6. Regression analysis for dependent variable “Customer satisfaction”

Table 7.1. Model Summary for China

Model	R	R Square	Adjusted Squared R	St. Error of the estimate
China	.948	.898	.896	.21257

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	118.478	6	19.746	437.001	.000
Residual	13.420	297	.045		
Total	131.898	303			

	Unstandardized B	t	Sig.
(Constant)	-.301	-1.974	.039
Previous experience	-.576	-3.108	.000
Technology acceptance	.858	11.290	.000
Logistics	.005	.150	.160
Perceived security	.107	1.788	.000
App-design	.306	-3.257	.001
Trust	1.201	8.953	.004

Table 7.2. Model Summary for Russia

Model	R	R Square	Adjusted Squared R	St. Error of the estimate
Russia	.986	.972	.971	.06614

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	43.991	6	7.332	1676.013	.000
Residual	1.264	289	.004		
Total	45.255	295			

	Unstandardized B	t	Sig.
(Constant)	-.389	-6.417	.004
Previous experience	-.222	-2.393	.017
Technology acceptance	.046	2.983	.003
Logistics	.311	9.030	.000
Perceived security	.173	2.187	.000
App-design	.028	-2.023	.044
Trust	1.057	12.108	.000

Table 7.3. Model Summary for general variance

Model	R	R Square	Adjusted R Squared	St. Error of the estimate
General	.950	.902	.901	.17276

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Regression	162.484	7	23.212	777.697	.000
Residual	17.669	592	.030		
Total	180.153	599			

	Unstandardized B	t	Sig.
(Constant)	.129	-1.387	.016
Previous experience	.162	2.200	.022
Technology acceptance	.116	3.356	.000
Logistics	.038	1.598	.000
Perceived security	.154	3.813	.001
App-design	.094	-3.616	.000
Trust	.326	9.143	.048
Culture	.598	8.230	.000