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MASTER THESIS

Influence of personal characteristics and perceived characteristics of innovation on intention to adopt e-cigarettes

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INTRODUCTION

In recent years, the concept of innovativeness has been the subject of considerable research in various fields such as economics, marketing and management. Innovativeness considered in recent studies in terms of products, individuals or firms (Hansen & Dibrell, 2009). In this study, it is of primary importance to examine the innovativeness of a particular product called e-cigarettes (Hansen & Dibrell, 2009). Innovativeness has been called one of the most important topics of studies, but little has been studied about e-cigarettes as an innovative product in today's world.

Due to technological development, e-cigarettes have become new alternative to traditional cigarettes and the biggest innovation in the market in recent years (Kislev, 2020). Previously, only traditional cigarettes of various brands were on the market, limiting the choice of smokers. With the advent of e-cigarettes, people's interest in the industry has increased rapidly (Kislev, 2020). This research paper also looks at the assumption that different types of smokers are interested in e-cigarettes, including people who have never tried the product before and those who have used them to quit smoking regular cigarettes and switch to alternatives (Morris & Khan, 2016). Thus, the demand for this product in the market has increased and continues to grow (Morris & Khan, 2016). Our study is concentrate on those smokers who already have a habit to smoke, but due to different internal or external factors prefer to switch from traditional smoking.

This product has received wide recognition. Smokers can purchase this device easily online, in marts and pharmacies (Grana, Benowitz & Glantz, 2014). People can observe the use of e-cigarettes in many public places where the use of regular cigarettes is prohibited by law. Motivation to buy e-cigarettes products also comes from family, friends, classmates, and other social relations (Creamer, Dutra, Sharapova, Gentzke, Delucchi, Smith & Glantz, 2021). Media-based demonstrations and the increasing number of individuals using the devices in public facilitate observability (Trumbo & Harper, 2015).

Nowadays, most of the advertisements are done through digital media (Chao, Dutra & Glantz, 2018). The literature shows that advertising spending per cigarette has exceeded $79 million through television, online media, and print publications (Brose, Brown, Hitchman & McNeill, 2015). These channels are well used to attract the attention of a younger generation who actively use social media (Phua, 2019). In the current study, we relate these arguments to personal and social compatibility.

Smokers have responded well to this market change because they now have more choices about what to smoke (Morris & Hahn, 2016). They have also noted such strong advantages as an attractive price and the high quality of the products on offer. E-cigarettes come in a wide variety of flavors and can appeal to a wide range of demographics, including teens, and have been cited in several studies as a major source of use among youth (Meernik et al., 2019). E-cigarettes have also been described as a very reliable product. Some studies make the case that they are safer than traditional smoking (Kaleta et al., 2016). These arguments refer to e-cigarettes relative advantages.

In this study, the habit strength is playing a big role, as it directly connected with the overall topic about e-cigarettes' adoption. In this study, we mostly focused on how habit strength can moderates other factors considered from the point of people adoption to new products, when they are already have strong habits and routine life.

This study generally based on the theory of Diffusion of Innovation (DOI), developed by Rogers in 1962. The result of that theory is that people, as part of the social system, accept the new idea, behavior or product. Acceptance means that a person starts to think differently about a product (often a new one). For example, they start to be interested in new products, want to buy them or have already bought them. Diffusion of Innovations is concerned with the perceived characteristics of the innovation. In one study the link between DOI and perceived characteristics of the innovation were discussed. A relative advantage might be the ability to use e- cigarettes in places where smoking is restricted or banned. Additionally, relative advantage can be connected with reliability of product, its favorable price and quality. Compatibility could be seen as personal and social. It can be seen in personal life and social structure of smokers. Media-based demonstrations and the increasing number of individuals using the devices in public facilitate observability (Trumbo & Harper, 2015). Still, there is very limited information according to how perceived characteristics of innovativeness influence intention to adopt e-cigarettes.

The more importance bring the health consciousness of smokers. Prior research has shown that while marketing campaigns promote a healthy lifestyle, there are still a lot of people who like to smoke (Kaleta et al., 2016). There are evidence, that e-cigarettes are healthier alternative for traditional smoking as well (Löhler and Wollenberg, 2019). Additionally, people nowadays are very concerned about their health. This can be due to different reasons. Some of them want to quit smoking altogether in the future, and are looking for alternatives to traditional cigarettes to quit gradually. Some simply want to switch from traditional cigarettes to devices that are more enjoyable (Löhler and Wollenberg, 2019).

From the other point of view, one study of Gorukanti et al. (2017) eliminated the latest uncertainty about e-cigarette health effects. He presented possible health effect for young adults. While their study shows that sampled young people enjoy e-cigarette use, especially flavors and the opportunity to trickle, they are aware that the health effects of can be restricted by nicotine addiction and harmful. According to Harrell et al. (2015), are considered to have fewer dangers, induce fewer withdrawal and craving effects, taste healthier, and be less addictive and enjoyable than cigarettes. However, there are still not enough studies regarding positive or negative effect of e-cigarettes smoking.

Thus, this study brings together the most important factors, characteristics, methods and theories about e-cigarette research in terms of product innovation in our world. We are interested in whether such characteristics of innovativeness as perceived together with the personal can influence the intention to use e-cigarettes. However, there are no studies that have examined the perceived characteristics of innovation that influence on intention to adopt e-cigarettes through the habit strength moderator. As well as no studies yet found according to influence of personal factors of innovativeness on intention to adopt e-cigarettes. In this study, we combine these perceived characteristics of innovation and personal factors in order to learn the possible influence on e-cigarettes adoption.

According to this, the overall problem of the current paper is how perceived innovation characteristics together with personal characteristics of a user affect intention to adopt e-cigarettes.

Drawing on a wide range of the innovation literature sources, the study aims to identify the influence of personal characteristics and perceived characteristics of innovation on intention to adopt e-cigarettes.

Research objectives

1) To analyze e-cigarettes as an innovative product on the market nowadays;

2) To analyze smokers' attitudes towards electronic cigarettes nowadays;

3) To analyse different theoretical frameworks according to innovation adoption;

4) To study the influence of perceived characteristics of innovation towards intention to adopt e-cigarettes;

5) To study the influence of personal factors and intention to adopt e-cigarettes;

6) To study habit strength as a moderator between perceived characteristics of innovation and intention to adopt e-cigarettes;

7) To develop a model on intention to adopt e-cigarettes based on theoretical frameworks;

8) To develop hypothesis of intention to adopt e-cigarettes, based on model and theoretical frameworks.

1. LITERATURE REVIEW

1.1. E-cigarettes adoption analysis

1.1.1. E-cigarettes as a product

The purpose of this chapter is to provide a review of current academic literature in the field of innovation on intention to adopt e-cigarettes. This chapter begins with a review of the literature specific to e-cigarettes as innovation product in the modern world and a good substitute for traditional smoking.

E-cigarettes are fast becoming a new trend among smokers with the number of users doubling in the EU and the US market. In the US market, e-cigarette earned most of the revenues in the year 2007. E-cigarettes were presented as a type of electronic device containing chemical liquid so that it is charged by electric plug and that chemical provides the smoking essence (Etter, 2010). These are also known as vapors, vaporizers, or vapor pens, which are products of powered battery (Etter, 2010).

Some studies show that e-cigarettes can be a very attractive product for different categories of people. The attractiveness (appeal) of e-cigarettes is driven by factors such as packaging and labeling, product design, ease of use, ability to customize device settings and prices of e-cigarettes and e-liquids (Baweja, 2016). In addition, unlike traditional cigarettes, e-cigarettes have a wide range of different flavors, which appeal to a wide range of demographic groups. Flavors increase the desire to try to start using e-cigarettes. The availability of e-cigarettes has also been seen as a factor in their frequent use (Thrasher, Vivero, Gutíerrez, Hernández, Shigematsu, Mejía & Sargent, 2016). This product is easily available online, in shopping centers and pharmacies (Grana, Benowitz & Glantz, 2014).

E-cigarettes become highly popular among youth. Although, one study found that the sampled young people enjoy using e-cigarettes, particularly the flavors and opportunity to become addicted, they are aware that the health effects of e-cigarettes may be limited to nicotine dependence and harmful (Gorukanti et al., 2017). Peer influence is a significant factor as young

people want to use e-cigarettes (Krishnan-Sarin et al., 2017). However, adolescents are not the only category who have a positive attitude towards e-cigarettes.

Most adults have changed their behavior, values and thoughts about the new product as well. Due to informative influences, all audiences are more convinced to embrace new products and ideas (Tsai et al., 2018). This may influence more people to continue smoking, as various studies have investigated the positive relationship between perceived family approval, peer approval and initiation of cigarette smoking among young people (Pedersen et al., 2013).

Additional sources have described that many regular cigarette smokers have switched to e-cigarettes instead of traditional cigarettes. One study explained this action in terms of the high volume of advertising for these devices. Advertising for e-cigarettes is not as restrictive as advertising for traditional smoking. Which means more people may notice these new devices and become interested. Sellers are also playing on the fact that they are advertising this product as a good replacement and alternative to traditional cigarettes. (Grana, Benowitz & Glantz, 2014).

As long as we speaking about smoking, the habit strength is playing a big role in adopting to e-cigarettes . When habit occurs, the brain ceases to be interested in making a decision at all. It stops straining or redirects the center to another activity. Therefore, until a person starts to fight the habit purposefully and develop a new schedule, the pattern will unravel. Habits never go away. They are encoded in the structure of our consciousness. Habits are the cause of our actions (Duhigg, 2012).

The habit of smoking is one of the most common and well-known dangerous habits and lots of researches showed their findings regarding to this statement. Smoking regularly can easily occurs nicotine addiction and a lot of other problems (Juranić et al.,2018). There are different oponion according to what stands for habit. One parametric estimate provided evidence that gender, education level, marital status and household size can be important and influence smoking habit (Douglas, 1998).

Other study describes that the habit develops depending on the individual's personality and also many factors can influence it (Juranić et al.,2018). Some of those who start experimenting with smoking at age 10 develop a permanent habit by age 20 (Juranić et al.,2018). This study agreed that the age can influence a smoking habit .

According to some studies, perceptions of the safety of cigarette smoking and e-cigarette use may lead to switching from traditional cigarettes to e-cigarettes. Some studies highlighting that various social economics factors played a role in switching from cigarettes to e-cigarettes. For example, it can be liked with education level. There are suggestion that awareness of e-cigarettes could differ by education level, which might affect their use. Those with higher education were less likely to switch to e-cigarettes from cigarettes (Harlow, Stokes & Brooks,

2019). E-cigarettes are most common among individuals with lowest levels of educational attainment and income (Wong & Fan, 2018). Concerning income level, results indicate that those with higher income were less likely to switch to e-cigarettes (Pesko, Huang, Johnston & Chaloupka, 2018). Another study reported that low-income individuals were more willing to switch to e-cigarettes if cheaper than tobacco (Li, 2013). More research is needed to understand the impact of socioeconomic characteristics on individuals' proclivity for switching completely to e-cigarettes.

Early studies also describe the health effects of e-cigarettes. They mention that e-cigarettes are less harmful than traditional cigarettes. These products are claimed to be less harmful alternatives to cigarettes as they do not require combustion but use a heating system instead . E-cigarettes are considered to have fewer dangers, induce fewer craving and withdrawal effects, taste healthier, and be less addictive and enjoyable than cigarettes. In one research examines the experiences, behavior, and values of everyday youths who have ever tried e-cigarettes (Alexander et al., 2019; Wagoner et al., 2016). Reduced youth harmfulness of e-cigarettes has been communicating in connection with beginning and prospective usage (Rutten et al., 2015).

One study of Gorukanti et al. (2017) eliminated the latest uncertainty about e-cigarette health. He presented possible health effect for young adults. While their study shows that sampled young people enjoy e-cigarette use, especially flavors and the opportunity to trickle, they are aware that the health effects of can be restricted by nicotine addiction and harmful. According to Harrell et al. (2015), are considered to have fewer dangers, induce fewer withdrawal and craving effects, taste healthier, and be less addictive and enjoyable than cigarettes. However, there are still not enough studies regarding positive or negative effect of e-cigarettes smoking.

In e-cigarettes, the burning of tobacco is replaced by the heating of the e-liquid, leading some manufacturers to claim that e-cigarettes have less harmful effects on the respiratory tract than tobacco consumption. Also the fact that e-cigarettes are less harmful may influence the fact that they can be regulated, including regulating nicotine content, taste .Nevertheless, the safety of e-cigarette consumption is still being studied (Marques, Piqueras & Sanz, 2021**).**Toxicology tests show that e-cigarettes may be safer than regular cigarettes, although some short-term harmful effects of e-cigarette use have been described. Unfortunately, the potential long-term effects of e-cigarette use are largely unexplored (Marques, Piqueras & Sanz, 2021**)**.

Therefore, many studies are analyzing the subject of health and smoking e-cigarettes from different perspectives. Many are still skeptical about this product and suggest bad effects on life (especially for teenagers and younger generations), some contrary to this. More and more

studies tend to show that when comparing the two products, e-cigarettes are much healthier and less harmful than regular cigarettes.

1.2. Factors that influence innovation adoption

1.2.1. Influence of perceived characteristics of innovation that impact adoption

From this study, focus groups noted that interest in trying e-cigarettes among young adults was consistent with a diffusion theory and innovation adoption model. A small study of college students reported that a positive evaluation of the innovative characteristics of e-cigarettes predicted their social acceptability (Trumbo & Harper, 2015).

One of these theoretical frameworks is The Theory of Diffusion of Innovation (DOI), developed by Rogers in 1962. The essence of this theory is that social group accept the new idea, behavior or product. For example, they start to be interested in new products, want to buy them with understanding of its innovativeness. Diffusion of Innovations Theory is concerned with the perceived characteristics of the innovation. The other Theory of Planned Behavior is concerned with variables that affect the decision makers' intention and behavior. Both Diffusion of Innovations and Theory of Planned Behavior are concerned with the perceptions of the decision maker. Thus, we posit that the characteristics of Theory of Planned Behavior complement the characteristics presented in Diffusion of Innovations to offer additional explanatory power regarding the decision to adopt an innovation (Weigel, 2014).

Current study directly overlaps with such a concept as perceived characteristics. Some perceived characteristics mentioned in studies as general and some of them are just in additional to general. In this study, we will consider all the characteristics ever mentioned in the literature and thus highlight the most important for our product.

Communicability is one of these additional perceived characteristics showed in previous articles. Communicability is the degree to which an innovation is spread through different media and communication channels, where a person can easily see it and become aware. Thus, a person will be interested in an innovative product if it is explained in an easy and accessible way from the benefit side (Tornatzky and Klein, 1982).

One more characteristic is customizability. Customizability is explained how potential users are able to modify the characteristics of the product to meet their personal needs and to make the product as convenient as possible for them. In this way, the user can create a product based on previous technologies and novelties, but totally the one they want (Boyd and Mason, 1999).

Social advantage is the degree to which an individual is motivated to achieve status through the use or ownership of an innovation. For example, whether a product is prestigious or not can determine a consumer's need to buy. If it is important for a person to be "on trend" and in tune with fashion, it is likely to have a strong influence on him and the desire to buy a new product. However, once the novelty begins to interest all people, the interest of one particular consumer may be lost, as he can no longer stand out from the crowd with this product (Rogers, 2003, p. 230).

The characteristic of perceived risk is also considered important for the choice and use of a new product. Risk is most often associated with something negative, a negative consequence that the potential consumer may fear and therefore not opt for the product. For example, various health risks, which users are concern (Rogers, 2003).

Complexity is the degree to which an innovation is perceived as difficult to understand and use (Rogers, 2003). Complexity can be broken down in complexity in use, and technical or design complexity. Complexity in-use refers to the ease in which users derive value from the innovation, while design complexity deals with internal components (Holak, 1988). Additionally, some studies found that the complexity of innovations was more highly related (in a negative direction) to their rate of adoption than any other characteristic. Such a perspective can be highly relevant to innovation research, since innovation often grows out of the interaction of people, technology, and knowledge (Fleming, 2001).

There are also such a characteristics as simplicity and ease of use. These explain how simple and easy it is to use a new product compared to previous products that have been used before. New ideas that are easier to understand are adopted faster than innovations that require new skills and understanding from the user. (Rogers, 2003, p. 230).

Some additional studies include brand identity, clarity of results, initial and continuing cost, ease of operation, flexibility, importance to user, mechanical attraction, pervasiveness, profitability, radicalness, reliability, saving of time, and utility (Moore and Benbasat, 1991).

Finally, voluntariness is defined as the degree to which the use of an innovation is perceived to be voluntary or free. That is, the consumer himself wants to use the product without any internal or external influence on it. (Moore and Benbasat, 1991).

Thus, examining all these factors and both models should provide an opportunity to better understand the decision to adopt an innovation. In this study, we blend the strengths of the Theory of Planned Behavior and Diffusion of Innovations models to develop the innovation adoption (IA) model.

1.2.2. Important factors that influence innovation adoption

E-cigarettes are a very specific product, which means they can only be of interest to a certain social group for whom this product is important. Thus, not all innovative characteristics for e-cigarettes are appropriate and important. In this part, we will define the important characteristics that mentioned in previous articles.

The results of Tornatzky and Klein's (1982) seminal meta-analysis of the innovation characteristics suggest that three innovation characteristics, relative advantage, perceived compatibility and complexity can be associated with innovation adoption the most. According to other studies of Rogers (1983) innovation characteristics include relative advantage (economical and by attribute), compatibility (social and personal), and observability (Rogers, 1983). In examining the innovativeness of electronic cigarettes, our study will rely more on the characteristics highlighted by Rogers (1983).

Relative advantage is the degree, in which a potential adopter get benefit from the adoption of an innovation idea instead of old idea. In this situation, a particular group of users perceives innovation as better than the idea it supersedes. That can be highlighted to relative economic advantage and relative advantage by others attributes (Rogers, 2003). The relative economic advantage can be price of a product that decreasing or increasing during the time. There are a number of sub dimensions of relative advantage: the degree of economic profitability, low initial cost, a decrease in discomfort, a savings in time and effort. When individuals pass through the innovation-decision process, they are motivated to seek information in order to decrease uncertainty about the relative advantage of an innovation. In other words, relative advantage is often the content of the network messages about an innovation (Rogers, 2003)

Observability is the degree to which the results of an innovation are visible to others. The results of some ideas are easily observed and communicated between social groups (Rogers, 2003). It often associated with reduced consumer uncertainty about the use of an innovative product. If a person does not immediately perceive an innovative product or is unsure whether they want (can) use it at this time, person have the opportunity to observe how the product is used by friends or peers before using it.(Tornatzky & Klein). In other words, the easier it is for others to see the benefits of an innovation, the more likely it will be adopted.

Compatibility of an innovation refers to how well the innovation fits into a person's personal life and social structure. Compatibility is most often described in the literature as the degree to which it is consistent with the experiences and past needs of a particular social

category. Compatibility is often divided into personal compatibility and social compatibility (Rogers, 2003).

Social compatibility refers to how well an innovation fits into the social structure of the consumer, including family, religion, law, economy (Rogers, 2003). For example, if an innovation product meets social expectations, it is successfully adopted. Social expectations may include whether the new product allows it to behave on an equal footing in society. Thus, an innovation that enables this is socially compatible (Aggarwal et al., 1998). As for the personal compatibility part, this should be consistent with the person's daily routine. More often than not, if the innovation means that the person has to change his or her routine, habits, hobbies - then the innovation will not be personally compatible (Rogers, 2003).

We found only one study that tried to collect all these characteristics into one analyzation for e-cigarettes perspective. A relative advantage might be the ability to use e- cigarettes in places where smoking is restricted. Additionally, relative advantage can be connected with reliability of product, its favorable price and quality. Compatibility could be seen as personal and social life structure of smokers. Media-based demonstrations and the increasing number of individuals using the devices in public facilitate observability (Trumbo & Harper, 2015). Still, there is very limited information according to how perceived characteristics of innovativeness influence intention to adopt e-cigarettes. Compatibility could be seen in the delivery of nicotine. E-cigarettes might be seen as having low complexity as they are depicted as convenient and easy to use. They are easily available for purchase in person or on-line, thus high in trialability. Media-based demonstrations and the increasing number of individuals using the devices in public facilitate observability (Trumbo & Harper, 2015). Still, there is very limited information according to how perceived characteristics of innovativeness influence intention to adopt e-cigarettes.

1.2.3. Personal factors that influence innovation adoption

A number of studies have identified the most common personal (individual) factors influencing the adoption of innovations, products and ideas. The following factors are identified: perceived usefulness, perceived ease of use, personal innovativeness. Health consciousness can also be included in this list of factors influencing the adoption of new products (June 2005). In terms of e-cigarette innovation adoption, this investigation focuses on two mail theoretical constructs and some additional for better understanding.

As for the additional factors, this study will highlight perceived usefulness first. This concept is defined here, as "the degree to which a person believes that using a particular system

would enhance his or her job performance." For example, from the context of companies and oragnizations, a salary increase for an employee is a motivation to move and keep working. This also includes various bonuses, entertainment and corporate events. (Fred , 1989). A system high in perceived usefulness, in turn, is one for which a user believes in the existence of a positive use-performance relationship (Fred, 1989).

Perceived ease of use, in contrast, refers to "the extent to which one believes that using a particular system will require no effort. In other words, what is given simply and without much effort can also motivate. This follows from the definition of ease: "freedom from difficulty or great effort. Effort is a limited resource that an individual can allocate among the various activities for which he is responsible (Radner and Rothschild, 1975). There is an assumption that a product that is perceived to be easier to use than another is more likely to be accepted by users.

The concept of personal innovativeness is described as an individual's (person's) desire to try a new product or idea (Agarwal and Parasad, 1998). Such people have a more positive attitude towards innovation than others have, and are therefore happy to embrace it. Thus, the influence of outcome expectation on behavioral intention is more prominent among innovative people (Agarwal and Parasad, 1998). As an example of personal innovativeness, in one study it was learn from the perspective of company's employees (Talukder, 2012). Despite the organization's decision to adopt an innovation, its actual use depends on how employees implement the innovation. Employee acceptance of innovations in organizations is therefore playing a big rope in personal innovation, because if employees do not accept innovations, the desired benefits cannot be realized and the organization may eventually abandon the innovation (Talukder, 2012). Employees' acceptance of innovations is determined by their social environment. Innovations used by others in the social environment of employees are likely to play an important role in the adoption of innovations (Talukder, 2012).

Personal innovativeness has been considered not only in research on diffusion of innovation (Rogers, 2003), but also in the field of information systems (Agarwal and Prasad, 1998). In this study, personal innovativeness is considered as a factor influencing the adoption of innovation (e-cigarettes).

In a modern world there are a lot of people that are really worry about their health. There have been many studies that indicate consumers increasingly care about their health through different actions (Kraft & Goodell, 1993). Some people are especially attentive to their health and may or may not be receptive to innovative products very much because of this. There are pretty much articles and studies that analyzing e-cigarettes in terms of their impact on human health. However, studies on health consciousness during e-cigarettes using are limited. This

concept can be define as a behavior in which a person wants to have information about how a need can affect health (Kraft & Goodell, 1993).

Other studies holds the view that health consciousness is an individual's psychological, inner-state orientation to health alertness, involvement, and self-monitoring of one's health (Gould, 1988). Health conscious individuals are believed to be more knowledgeable about health issues and are more likely to take actions. On the other hand, some researchers suggested that health consciousness is a manifestation of integration of health behaviors, and thus can be conceptualized and measured by actual health-related activities, such as dieting, taking exercise, and food consumption and switching from traditional cigarettes to e-cigarettes smoking (Kraft & Goodell, 1993).

1.3. Summarizing

In this Master study, we analyzing e-cigarettes from the perspective of an innovation in today's society. Therefore, according to our analyzations, we can confirm that e-cigarettes nowadays are unique product and good alternative for people who enjoy smoking (Kislev, 2020). This product is especially interesting for those smokers category who smoking regular cigarettes and would like to switch from traditional cigarettes to less dangerous product. This category of people consider e-cigarettes as less harmful than traditional cigarettes.

E-cigarettes are very attractive to other social categories too. Especially, studies highlighted their popularity among young people and adolescents. The quantity of youngsters who take electronic cigarettes has extended from previous years, accomplishing 2.4 million clients (Dutra and Glantz, 2014). Research indicates that young people obtain their nicotine products from various outlets, either commercially (i.e., shopping or socially) or socially, including siblings, parents, peers, etc. (Dai & Hao, 2020). Although there is literature about where youth get tobacco material or products (Mantey et al., 2019; Meyers et al., 2017).

The availability of e-cigarettes has also been seen as a factor of attractive product (Thrasher, Vivero, Gutíerrez, Hernández, Shigematsu, Mejía & Sargent, 2016). This product is readily available online, in shopping centers and pharmacies (Grana, Benowitz & Glantz, 2014). This mean that any young people or adults can easily purchase this product in the near area.

The advertising of e-cigarettes are not controlled that much as traditional ones and available in lot of countries. For instance, while advertisements are banned in Mexico, they are allowed in the USA and UK (Amrock, Zakhar, Zhou, & Weitzman, 2015). It means that regulatory permissions and authority is also one of factors, which can create or restrict the consumption of this product. Industry ads have historically reached young people through

various ads platforms and promotions (Coombs et al., 2011). Potential customers can see advertising everywhere - YouTube, Facebook, Twitter or retail channels, books, or TV and movies. Announcements may be of particular interest to young and adult's social groups (Kong et al., 2015). There people can see e-cigarettes as sleek, trendy, and socially appropriate (Kong et al., 2015).

An additional attractive feature of e-cigarettes is their ease of use (Meyers et al., 2017). This done special for different categories of smokers, so they easily can adapt without feeling uncomfortable. E-cigarettes are often presented as simple mechanisms consisting of chemical liquid so that it is charged by electric plug and that chemical provides the smoking essence (Etter, 2010). Thus, the electronic cigarette as a product is a very attractive device in the market and is widely used by different categories of people (Meyers et al., 2017).

The innovativeness of e-cigarettes is driven by factors such as packaging and labeling, product design, ability to customize device settings and prices of e-cigarettes (Baweja, 2016). In the current study presented a link between e-cigarettes and innovativeness. The former group may use them because of the sense of fashion associated with this novel device (Sapru, 2020). The sense of fashion and coolness portrayed by the models smoking e-cigarettes is also a big influence on young minds. In some previous study e-cigarettes was mentioned as "a fashion accessory for affluent, upwardly-mobile city-living women" (Tinkler, 2020). Leading e-cigarette brands have been much focused lately on raising awareness of e-cigarettes as an innovative product. Many brands are already start-releasing e-cigarettes under their own labels, which is likely to have a positive impact on the growth of the global e-cigarette market. Considering that the design of traditional cigarettes has hardly changed over time, the innovation in e-cigarette design has made a positive impression on smokers (Baweja, 2016).The design of e-cigarettes can indeed vary greatly depending on the type of electronic device. Smokers can but an e-cigarette with custom design or e-cigarettes from the famous brand on the market.

One study of traditional cigarettes showed that smokers of usual cigarettes are very loyal to the brands they chose to smoke , which mean that they are very specific to the brand of the cigarettes. Usually smokers chose 1-2 brands, which they would like to use regularly (Parmar & Radha, 2019). This evidence can be linked with e-cigarettes as well, as big cigarettes brands now start additionally producing e-cigarettes devices too. They usually just adding a category of these alternatives to the market and creating a new brand name for this (Parmar & Radha, 2019). However, the manufacture is not changing,

This study showed that smokers could be loyal to brand they are using from two perspectives called hard-core loyalists or switchers. Hard core brand loyalists are usually those who stick to their preferred brands. For this category change brands meaning changing lifestyle

fully. On the other hand, brand switchers are not tied to specific brands, thus, are likely to go for available close substitutes that may provide similar satisfaction (Parmar & Radha, 2019).

Moreover, brand loyalty in the cigarette industry is the highest among all existing consumer products. Due to the very high loyalty in the industry, the percentage of smokers that switch from one type of cigarettes to another is very low, less than 10% every year (Dawes, 2014). For example , firms use signs, symbols and/or designs, which are either vocalized or non-vocalized to differentiate their brands/products from those of competing brands or products that are close substitutes (Dawes, , 2014).

Our study focused on several of characteristics of innovation that can be linked with e-cigarettes adoption nowadays. They described well in literature review section. Relative advantage is the degree, in which a potential adopter get benefit from the adoption of an innovation idea instead of old idea (Rogers, 2003).

It can be conclude that there is a positive influence on the innovation adoption of a new product if it is perceived as having a relative advantage. The relative advantage in our study is divided into relative advantage by attitude and relative economical advantage (Rogers, 2003).In the section with relative advantage by attitude included smoker's consideration that e-cigarettes less dangerous for their health. Therefore, some studies point that a large number of people reduce their use of traditional cigarettes in favor of e-cigarettes because they believe it will help them quit smoking in the future (Drummond, 2014).

Smokers additionally consider e-cigarettes been more reliable because of its high awareness everywhere. E-cigarettes advertising increases as well as people who start to use e-cigarettes, like close friends, relatives etc. Especially young people are frequent users of different media like websites, such as YouTube, Facebook, Twitter or retail channels, books, or TV and movies to advertising e-cigarette.

One advantage that is more important is that e-cigarettes are available in lot of places. According to several studies, the rules for e-cigarettes in public places are not as strict as for regular cigarettes, which is mean that people are able to smoke almost everywhere.

Additionally, e-cigarettes consider more comfortable in use than traditional ones. Some of e-cigarettes devices is designed in the way to use it for a long period (Drummond, 2014). The comfortable using of product is a big advantage in this case.

The economic relative advantage of e-cigarettes may be due to the need to buy e-cigarettes less frequently than regular cigarettes. A regular pack of cigarettes lasts on average 2-3 days for an active smoker. If that same smoker tries to buy e-cigarettes and smokes them as often as regular cigarettes - he would still not have to change his device as often (Rogers, 2003).

E-cigarettes can help to reduce costs (SAMHSA, 2020). A look at the costs of smokes and e-cigarettes shows the savings can vary a lot, depending on state cigarette taxes and the brand and style of e-cigarette used (Shapiro & Aneja). However, the bottom line is that e-cigarettes can generally make an expensive addiction cheaper. The numbers for an individual smoker can vary significantly depending on their preferred cigarette brand, where they live, the e-cigarette brand they choose and how much liquid nicotine or cartridges they buy at a time (Shapiro & Aneja). Most disposable e-cigarettes say they're equivalent to about 2 packs of cigarettes and cost $6 to $10 apiece, meaning they'd cost about $1,100 to $1,800 a year, for savings of several hundred dollars a year (SAMHSA, 2020). The savings are bigger for rechargeable e-cigarettes with disposable cartridges. In comparison with traditional cigarettes, e-cigarettes has favorable price and quality (Drummond, 2014). As for the price, as already mentioned, it can vary greatly depending on the brand**,** country and design (Baweja, 2016). As for quality, e-cigarettes are made to last the user as long as possible.

Observability is the degree to which the results of an innovation are visible to others. The results of some ideas are easily observed and communicated between social groups (Rogers, 2003). Smoking e-cigarettes is a public act as well as smoking traditional cigarettes. Therefore other social groups can observe it's using in this public places, where it is not banned (Rogers, 2003). Therefore, the fact that people can easily observed this new product using by others could grow interest. The easier it is for others to see the benefits of an innovation, the more likely it will be adopted. Media-based demonstrations can also be include as an observability example of e-cigarettes.

We have already considered the fact that the general interest in e-cigarettes is increasing and thus the act of smoking an electronic device is becoming a common action for people around. People are noticing more and more smokers around them and among their family and friends.

Compatibility of an innovation refers to how well the innovation fits into a person's life and social structure (Rogers, 2003). Prior research has shown that while many marketing campaigns promote a healthy lifestyle, there is still a huge count of people who still like to smoke (Kaleta, Wojtysiak & Polańska, 2016). For some people smoking is important action, as it part of their personal life. Due to that reason, if e-cigarettes will fit with smoker's lifestyle and everyday routine, people are most likely to change their behavior. Still, it is depends on smokers. Those smokers that are ready to change their lifestyles are most likely to be innovative among others.

Additionally, e-cigarettes can be linked with trends and keeping potential self-image in good manner (Foxon & Selya, 2020). Studies explained that young people extensively inspired

with their peers behaviors and their intensions to buy increases. There are lot of other psychological, environmental and technological factors that influenced the behavior of society towards these unhealthy products such as advertisement media, friends and role models. In other words, if person can see others use that new product and others people easily accepting this trend – they will most likely to do the same (Foxon & Selya, 2020).

There is evidence that young people are also frequent users of social media. In addition, most advertising is now done through digital media (Chao, Dutra & Glantz, 2018). These two factors point to the high likelihood that the marketing tactics of cigarette retailers are driving young people to buy their products by using different appeals (e.g., emotional, rational, and humorous appeals) to promote these e-cigarettes (McNeill, Brose, Calder, Hitchman, Hajek & McRobbie, 2015). In addition, retailers in their advertisements try to mention how using e-cigarettes can make an image of a person and how fashionable it is to use them (Phua, 2019).

Moreover, if new product compliments with product currently use, smokers most likely will change their behavior and willingness to try new product. Individuals who dependably take e-cigarettes will, without a doubt, smoke ordinary ignitable cigarettes and are more reluctant to stop smoking (Dutra and Glantz, 2014).

The easy process of adoption to e-cigarettes as innovative product can cause social compatibility. Social compatibility refers to how well an innovation fits into the social structure of the consumer, including family, religion, law, economy (Rogers, 2003). For example, if a new innovation product meets social expectations, it will be successfully adopted. As we already mentioned, e-cigarettes is a public action, and we can easily observe other people using it, including different social groups. It mean, that it is socially acceptable for most of smokers and people who watching. It can be socially acceptable e- in this case for the reason that smoking these e-cigarettes does not produce an unpleasant odor or harmful smoke (Löhler and Wollenberg, 2019).

In general, innovations that are perceived by receivers as having greater relative advantage, compatibility and observability, will be adopted more rapidly than other innovations. These are not the only qualities that affect adoption rates, but past research indicates that they are the most important characteristics of innovations in explaining rate of adoption.

Our study focused on personal factors that influence innovation adoption. In literature review, section there were characterized several of them as intention to adopt e-cigarettes. Drawing upon Rogers' theory of the Diffusion of Innovations, Agarwal and Prasad (1998) argued that individuals develop beliefs about new technologies by synthesizing information from a variety of media. Our product is e-cigarettes, so in order to adopt to this specific product, person need to be very open to novelties around. Such person should have a more positive

attitude towards innovation than others should and therefore happy to embrace it (Agarwal and Prasad, 1998). For such people, the pros of using a new product weigh more than the possible cons. For example, the fact that e-cigarettes have a wide variety of brands, designs, components and flavors will be a decisive advantage.

Smoking is always been a health issue (Kaleta, Wojtysiak & Polańska, 2016). Most of the advertisement promotes it as beneficial for health by comparing it with the harmful effect of tobacco-based products. People also thinking that it is less dangerous if comparing with traditional ones. Many people think that based on the fact that e-cigarettes do not have as many toxins and chemical elements that can pollute the environment and harm human health (Kaleta, Wojtysiak & Polańska, 2016).

Nowadays, many people are very concerned about their health due various reasons (Wagoner et al., 2016). Some of them want to quit smoking in the nearest future, and keep looking for alternatives. The other part simply want to switch from traditional cigarettes to devices that are more enjoyable. In addition, some are just interested in trying something new without the need to quit traditional habits. In any of these cases, there may be a health factor involved.

E-cigarettes are therefore considered to have fewer dangers, induce fewer craving and withdrawal effects, taste healthier, and be less addictive and enjoyable than cigarettes. In one research examines the experiences, behavior, and values of everyday youths who have ever tried e-cigarettes (Alexander et al., 2019; Wagoner et al., 2016).

One of the most important characteristics can be smoking habit of people. For lots of smokers, the process of smoking is something intimate, that they do for relaxation and calm down. Therefore, it is a very strong habit that most of people do not want to change, even if it can be harmful. As long as we speaking about smoking, the habit strength is playing a big role in adopting to e-cigarettes as innovative product as well. When a habit arises, the cerebrum stops completely taking an interest in making the decision. It quits buckling down or redirects the center to different activities. Therefore, until an individual intentionally fights with a habit and gets a new schedule, the pattern will be unfurled. The habit never indeed vanishes. They are encoded into the designs of our minds. Habit is the reason for our actions. We probably will not recall the encounters that make our propensities, yet whenever they have stopped in our cerebrums, they affect how we regularly act without recognition (Duhigg, 2012).

The essence of that study paper is Innovation Adoption model (IA) and Diffusion theory by Rogers (1948).

2. METHODOLOGY OF THE RESEARCH ON E-CIGARETTES ADOPTION INTENTION

2.1. Purpose of the research, variables, model and hypotheses

The purpose of recent study was to examine the effect of perceived characteristics of innovation and personal innovative characteristics on e-cigarette intention to adopt through the mediating role of habit strength. Although the researcher is working in the field, an objectively phrased self-completion survey is used for independent data collection. Therefore, the quantitative research approach chosen to collect primary data.

The goal of empirical research to collect data that allow perceived characteristics of innovation and personal (individual) characteristics adopt to e-cigarettes innovations.

In part 1.3. of literature review section we gave explanation and analysis of most important perceived characteristics of innovation that can adopt e-cigarettes intention.

Drawing from the results of this analyzation, can be conclude a positive influence on the innovation adoption of a new functional product if it is perceived as having a relative advantage due to economical side and by attitudes. We conclude that the economic relative advantage of e-cigarettes may be due to the need to buy e-cigarettes less frequently than regular cigarettes. Additionally, those smokers who want to switch from traditional smoking due to difference reasons, can concern it as positive factor as it will help to change habit and save money. Studies mentioned e-cigarettes favorable price and quality in comparison with traditional cigarettes'. Price usually depends on the brand, country and design (Drummond, 2014). As for quality, e-cigarettes are made in order to use them longer than traditional cigarettes (Drummond, 2014).

If to mention relative advantage by attitude, we conclude that e-cigarettes are more reliable product due to its frequent advertising campaigns in a modern world. E-cigarettes advertising increases as well as people who start to use e-cigarettes, like close friends, relatives etc.

From the analyzation of observability can be conclude that e-cigarettes have already gain general interest and its only increasing through times (Tornatzky & Klein).The act of smoking an electronic device is becoming a common action for people around in modern world. People keep noticing e-cigarettes smokers everywhere: near shop centers, bus stations, in other public places where this kind of smoking not banned yet. It is soon become habit of among relatives, friends and collogues in work places. Advertising and social media also play a big role in surveillance (Brose, Brown, Hitchman & McNeill, 2015). People are starting to learn more about different brands of e-cigarettes and are interested in what to purchase (Parmar & Radha, 2019).

Analyzation of compatibility as perceived characteristic of innovation showed two personal and social compatibilities. From the analyzation of personal compatibility, can be conclude that for most people smoking is important action, and new product should fit well into the user's routine. Moreover, as sooner the smoker gets used to this innovation, as sooner he will use it in the future or fully incorporate this product into his routine. If the smoker has to completely change his or her routine to use the new product, the innovation will not be accepted positively. Those smokers that are ready to change their lifestyles are most likely to be innovative.

From the analyzation of social compatibility, it can be conclude that social compatibility refers to how well an innovation fits into the social structure of the consumer, including family, religion, law, economy (Rogers, 2003). If product meets social expectations, it would be successfully adopted. E-cigarettes is a public action, and we can easily observe other people using it, including different social groups (Hendricks et al., 2015). It mean, that it is socially acceptable for most of smokers and people who just watching. It can be socially acceptable e- in this case for the reason that smoking this e-cigarette does not produce an unpleasant odor or harmful smoke (Han & Son, 2020).

In each characteristic described, we can trace a connection to a habit strength as a moderator between them and intention to adopt. The role of a habit strength is big as well (Bauman et al., 2001). From the analyzation on the previous parts, can be concluded that for the modern smoker, his habit (smoking) is very important way he or she living, without which he cannot imagine his routine. For example, it is well known that teenagers' smoking habits are influenced by their parents' smoking habits (Bauman et al., 2001).

If the routine is disrupted by an innovation, the smoker is likely to perceive it negatively. Smoking is quite a strong addiction and a person prefers to maintain it in a habitual way rather than change something in his life. However, many studies that focused on smoking behavior have shown that if a new product does not disrupt the routine and is well replaced by an old product - then the innovation will be perceived many times faster and more positively (Reboussin et al., 2019).

A habit can be characterized as a learned social reaction to a situational signal (Verplanken & Orbell, 2003). The rehashed execution of conduct in a particular setting prompts the advancement of a behavioral habit set off by highlights of the environment that have covered often with past execution of the behavior. Such highlights of the climate may incorporate execution areas, going before activities in an arrangement, the presence of specific individuals, or an inside idea or feeling (Verplanken & Orbell, 2003). Habit strength is a component of the recurrence with which an activity has been rehashed in a controlled setting and has obtained a

severe level of habit automaticity (Verplanken and Orbell (2003). Habit strength is an element of the recurrence with which an activity has been rehashed in a controlled setting and has obtained a severe level of permanent automaticity (Verplanken & Orbell, 2003).

In section 1.3. Was reviewed personal innovativeness towards intention to adopt e-cigarettes. We focused on two main factors there – personal innovation and health consioness. From the analyzation of personal (individual innovativeness) can be conclude that in order to adopt to the specific product, person need to be very open to novelties around. Such person should have positive attitude towards innovation, be innovative. For such people, the pros of using a new product weigh more than the possible cons. For example, the fact that e-cigarettes have a wide variety of brands, designs, components and flavors will be a decisive advantage (Stroup & Branstetter, 2018).

From the health consciousness analyzation can be concluded that the fact that advertising sells e-cigarettes as less harmful and products that can replace traditional smoking gives a great desire to try this product. People nowadays are worrying about their personal health, close friends, families and environment. The fact that advertising sells e-cigarettes as less harmful and products that can completely replace traditional smoking gives a great desire to try this product (Kaleta et al., 2016).

In this research paper, we used several variables, such as one dependent variable, a moderator variable, and independent variables. The independent variables for our model are divided into perceived characteristics of innovation and personal factors. From one side, personal factors are studied to influence depended variable (intention to adopt) directly. Personal factors are consist of personal innovativeness and health consciousness. From the other side, perceived characteristics of innovation are studied to influence dependent variable (intention to adopt) through moderator (habit strength). Perceived characteristics of innovation are consist of observability, personal and social compatibility, relative advantage by attribute and relative economical advantage (Rogers, 2003). As already was mention, the dependent variable of current model presented as intention to adopt e-cigarettes, which influenced from the side of personal factors and perceived characteristics of innovativeness. The moderator role is playing habit strengths, which is also effects on each of the perceived characteristics included in model. Habit strength helps to explore the independent and dependent variable relationship.

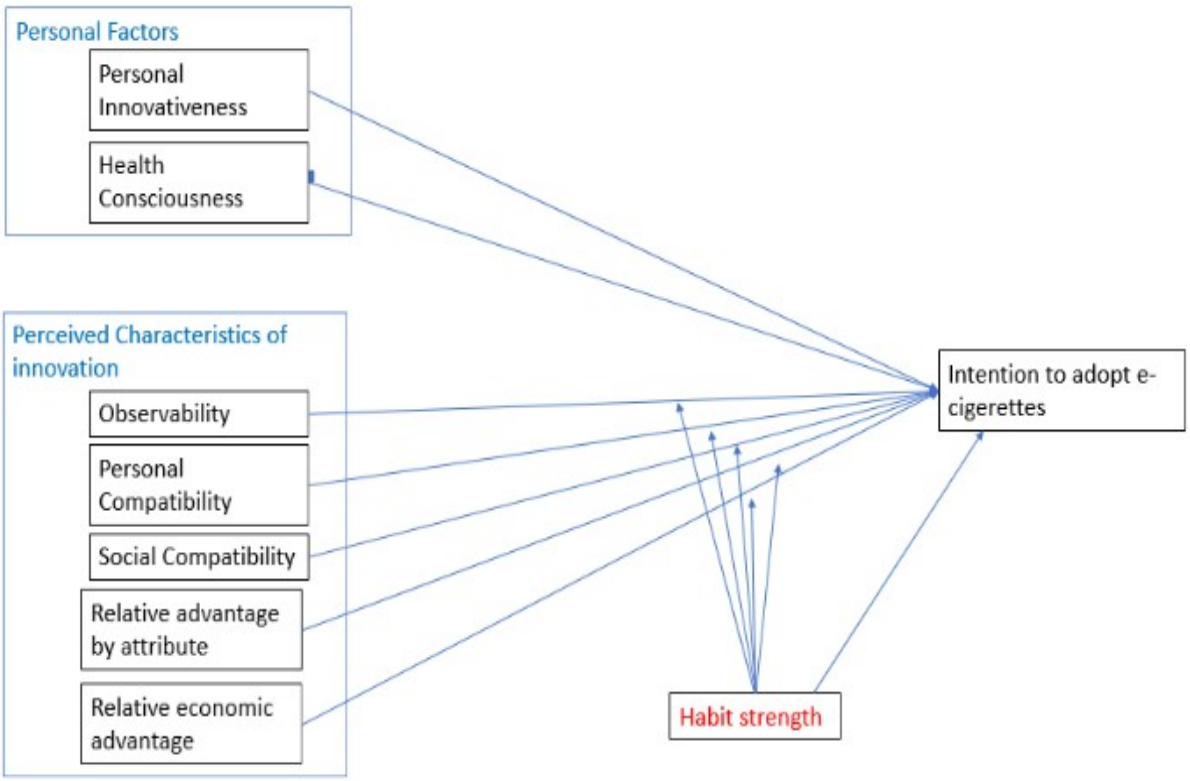

Figure 1. Research model of intention to adopt e-cigarettes (by author, 2021).

In this regard, study of perceived characteristics of innovation and personal factors intention to adopt e-cigarettes is the main of this research. Building upon above-discussed variables and theoretical concepts we develop following research model regarding mediator role of habit strength between independent variables (observability, personal and social compatibility, relative advantage by attribute and relative economical advantage) and dependent variable (intention to adopt e-cigarettes). Additionally, we will study the direct influence of other part of independent variables, such as personal factors (personal innovativeness and health consioness) to the dependent variable (intention to adopt e-cigarettes).

On the following picture, we can see the structure of the model. Intention to adopt e-cigarettes been influenced directly by personal factors (personal innovativeness and health consciousness) and influenced through moderator (habit strength) by perceived characteristics of innovation (observability, personal and social compatibility, relative advantage by attribute and relative economical advantage).

In line with the above given research model, following hypotheses are proposed for this research.

Hypothesis 1: Personal innovativeness has positive impact to intention to adopt e-cigarettes.

The concept of personal innovativeness described as an individual's (person's) desire to try a new product or idea (Agarwal and Parasad, 1998). Such people have a more positive attitude towards innovation than others have, and are therefore happy to embrace it. Those people, who like to try new product and ideas around, will be more likely to adopt e-cigarettes as well. In this case, the influence of outcome expectation on behavioral intention is more prominent among innovative people (Agarwal and Parasad, 1998). Innovations used by others in the social environment of employees are likely to play an important role in the adoption of innovations (Talukder, 2012). Thus, the hypothesis is proposed that personal innovativeness has positive impact to intention to adopt e-cigarettes.

Hypothesis 2: Health consciousness has positive impact to intention to adopt e-cigarettes.

Most smokers are obsessed with their health stability. They will be more positive about a product that will help them be healthier than one that will have bad consequences. There have been many studies that indicate consumers increasingly care about their health (Kraft & Goodell, 1993). Some people are especially attentive to their health and may or may not be receptive to innovative products very much because of this. There are pretty much articles and studies that analyzing e-cigarettes in terms of their impact on human health. Therefore, we proposed hypothesis that health consciousness has positive impact to intention to adopt e-cigarettes.

Hypothesis 3: Observability has positive impact to intention on adopt e-cigarettes.

Smoking e-cigarettes is a public act as well as smoking traditional cigarettes. In the consequence of observing the habits and actions of others, being in the company of their relatives or colleagues, person adapts to the change faster and becomes more aware of it. The act of smoking an electronic device is becoming a common action for people around. Therefore, the fact that people can easily observed this new product using by others could grow interest. The easier it is for others to see the benefits of an innovation, the more likely it will be adopted. Media-based demonstrations can also be include as an observability example of e-cigarettes (Tuchman, 2019). According to this, we can propose a positive impact of observability to intention to adopt e-cigarettes.

Hypothesis 4: Personal compatibility has positive impact on intention to adopt e-cigarettes.

Smoking is an important and very strong habit for long-term smokers (Verplanken & Orbell, 2003). This habit can take years to develop and in many cases a person can no longer live without a certain habit, which easily turns into a need. There are, however, exceptions in this case. Smokers really may never want to give up their habit. But trying something new doesn't always mean giving up the way they used to smoke. Therefore, a smoker may take well to an

innovation in the market, as long as it doesn't inevitably cause him or her to give up the old one. In this way, the way of adapting to the new habit will be loyal. If the innovation means that the person will have to change their routine, habits, hobbies - then the innovation will not be personally compatible (Rogers, 2003)

Hypothesis 5: Social compatibility positive impact on intention to adopt e-cigarettes.

Social compatibility refers to how well an innovation fits into the social structure of the consumer, including family, religion, law, economy (Rogers, 2003). Social expectations may include whether the new product allows it to behave on an equal footing in society. According to this, we can propose hypothesis that social compatibility positive impact on intention to adopt e-cigarettes.

Hypothesis 6: Relative advantage by attribute has positive impact on intention to adopt e-cigarettes.

Awareness of innovation is growing through various channels such as advertising campaigns, social channels, media, and opinion sharing (Phua, 2019). As awareness of a new product grows, so does the trust and desire to use it in the future as a reliable product. According to these statements, we can propose hypothesis that relative advantage by attribute has positive impact on intention to adopt e-cigarettes.

Hypothesis 7: Relative economical advantage has positive impact on intention to adopt e-cigarettes.

Those smokers who want to switch from traditional smoking due to difference reasons, can concern it as positive factor as it will help to change habit and save money. Studies mentioned e-cigarettes favorable price and quality in comparison with traditional cigarettes'. (Rogers, 2003). Price usually depends on the brand, country and design (Rogers, 2003). As for quality, e-cigarettes are made in order to use them longer than traditional cigarettes.

Hypothesis 8: Habit strength negatively moderates impact of observability on intention to adopt e-cigarettes.

On the other hand, habit strength can negatively affect observability. Studies have shown that young people are largely inspired by the behavior of their peers, and prolonged observation leads to intent to buy products increases. There are many other psychological, environmental and technological factors that have influenced society's behavior toward these products, such as media advertising, friends and role models (Gould, 1988). In other words, if a person sees others using this new product, and other people easily accept the trend and use it daily, they are more likely to repeat the same action. According to this, we can propose that habit strength negatively moderates impact of observability on intention to adopt e-cigarettes.

Hypothesis 9: Habit strength negatively moderates impact of personal compatibility on intention to adopt e-cigarettes.

Negative impacts from habit strength is considering of personal compatibility as well. This is especially evident among the young number of smokers, for whom "being on trend" and having "trendy habits" is necessary to maintain their status in their circle of friends. It is also very important for young people to be the first to try new products advertised in the media and on social networks. According to this, we can propose that habit strength negatively moderates impact of personal compatibility on intention to adopt e-cigarettes.

Hypothesis 10: Habit strength negatively moderates impact of social compatibility on intention to adopt e-cigarettes.

The fact that smoking is a socially acceptable action and in many respects corresponds to social expectations does not cancel the fact of addiction and "bad habit" (Bamberg & Schmidt, 2003). Traditional, electronic, or any device for smoking can be socially acceptable, but have minimal risks to human health and others .According to this, we can propose that habit strength negatively moderates impact of social compatibility on intention to adopt e-cigarettes.

Hypothesis 11: Habit strength negatively moderates impact of relative advantage by attribute on intention to adopt e-cigarettes.

Electronic cigarettes are presented to consumers as the most convenient, safe and alternative to smoking (Krishnan-Sarin et al., 2017). However, many studies point out that the safety of e-cigarettes has not been fully proven and there are always risks ().Advertising these devices as a safer option may be a marketing ploy to increase sales. Sellers know that people may be interested in the product and take advantage of the opportunity. Especially, such advertising affects the younger generation. According to this, we can propose that habit strength negatively moderates impact of relative advantage by attribute on intention to adopt e-cigarettes.

Hypothesis 12: Habit strength negatively moderates impact of relative economic advantage on intention to adopt e-cigarettes.

The habit strength can negatively effect of relative economic advantage. A relative economic advantage can be the price of a product, which decreases or increases over time. However, if the demand for a certain product increases (because it becomes a hobby), then the price rises rapidly. Thus, the new habit will cost more for the same quality.

Hypothesis 13: Habit strength of smoking regular cigarettes negatively impact intention to adopt e-cigarettes.

The habit of smoking regular cigarettes is a very strong habit for a smoker. If this habit has been present in a person's life for more than 15-20 years, it is difficult to switch to something else because the smoker's routine changes. Usually such smokers perceive innovations

negatively and continue to smoke only those cigarettes or brands to which they have been accustomed from the beginning.

2.2. Research Instrument

Research can be of qualitative or quantitative type. In the qualitative type of research, information attained form participants in non-numerical form and cannot be analyzed through any statistical tool. Qualitative research results are descriptive and exploratory. While on the other hand, in a quantitative research method, any information which is obtained in the form of numerical data or descriptive shape can be analyzed through a statistical tool. Data analysis through a statistical tool ensures the objectivity of the research process, and results are presented often in the form of tables and figures (Creswell, 2014). Quantitative research method is adopted in this study, and data is collected through the survey technique on already developed reproach scales taken from prior studies.

In a research study, data is collected through primary sources (Creswell, 2014). In this research study, primary data collection is carried out from Russian-speaking people of different ages, education and income level, and secondary data is composed of already available papers, books, articles, and other online sources.

Primary data for the purpose of this research study is collected through an online research questionnaire. The research method for this research study is quantitative. Data is collected in the form of figures, which then is analyzed with the help of established formulas and statistical software (Creswell, 2014). The online questioner will be used in order to analyse the topic better and present proper results.

Questioner was created online with the help of "Google Forms". Google Forms is one of the most common tool for collecting data. A lot of marketing researches used it for their papers, because it is colorful, well designed and simple tool for obtaining user's responses. It has really simple settings and possibility to collect data straight to the Excel file.

The questioner we start with presenting overall information about the research and research product – e-cigarettes. We presented e-cigarettes for our respondents as a main subject of current research and described rules of participating in questioner. There are no strict rules for participating, but in order to get good responses we will need to ask only smokers. Additionally, the questioner structure is finished if person answered negatively to the first question "Are you

smoking “? Additionally, every question from our questioner is marked as required, as we want to collect full answers without gaps.

Unfortunately, we are interesting only in people that already have a smoking habit and are ready to try new smoking tool to continue smoke. Those, for whom e-cigarettes are a fist smoking experience, are not included as a goal of our current research.

First question is presented in such a way as to filter out non-smokers. Our survey is designed so that if the person does not smoke, they cannot continue the survey. The other questions are divided into sections. Each section is responsible for a specific set of questions. There we offer respondents to choose answer from the 5-point Likert scale, with possible answers from strongly agree to strongly disagree. The first question is not included in the sections, but it is related to habits.

The first section is responsible for questions about habits strength. Information about habit strength of our respondents here we get to know the respondents better and ask questions about their personal qualities and habits.

Section 1. (Questions from 2 to 4)

In this section, we continue about habits strength. Information about habit strength of our respondents here we get to know the respondents better and ask questions about their personal duties and habits.

In one study, the habit strength has been measured from the perspective of food safety products (Hinsz, Nickell & Park). We did not use this scale, as our study is not connected to food products. That is why we used other study or a “Self-Report Index of Habit Strength” by Verplanken & Orbell, (2003). This study presented a scale where habit strength measured very broadly and fits our research. The scale we took from Verplanken & Orbell (2003).

Section 2. (Questions from 5 to 14)

In this section, we presented a question about the personal innovativeness of our respondents. In this part of the survey, it was important for us to find out smokers' attitudes towards innovations in their lives, new ideas and products. Innovativeness has been dealt with in many studies. One study of Knowles, Hansen, & Dibrell (2008) measured innovativeness in terms of firms' innovativeness. Another study investigated innovative food and presented scale of domain specific innovativeness (Barcellos et al. 2009). Anyway, the more appropriate scale for our study work was presented by Karaarslan (2015). In his study, the innovation scale was presented from the perspective of buyers, which means it can be equated with personal innovativeness.

Section 3. (Questions from 15 to 19)

This section is aimed to know more about our respondent's health awareness and health consioness. In the process of research, we found and subsequently used only one scale, that was mentioned in study about "New Measure for Health Consciousness", Hu (2013). The scales fit, since the same variable was considered – health consciousness.

Section 4. (Questions from 20 to 34)

The largest number of questions included into this section. Here we intend to learn more information regarding the perceived characteristics of e-cigarette innovations.

To be more specific, questions from 20 to 22 a responsible for observability. The observability scale was taken from Flight et al. (2011).

Questions from 23 to 25 responsible for personal compatibility, The scale of personal compatibility was taken from Flight et al. (2011).

Questions from 26 to 28 responsible for social compatibility. The scale of social compatibility was taken from Flight et al. (2011).

Questions from 29 to 31 responsible for relative advantage by attribute. The scale of relative advantage by attribute was taken from Flight et al. (2011).

Questions from 32 to 34 responsible for relative economic advantage. The scale of relative economic advantage was taken from Flight et al. (2011).

Section 5. (Questions from 35 to 38)

This section includes questions about intentions to buy a new product (e.g., in the near future). The purpose of this section is to learn more about whether our respondents plan to buy and use a new product in the future. We took the scale from Saprikis et al. (2017). Originally, the scale presented as "behavioral intention", but we modified it as "intention to buy" to fit more with our main topic of e-cigarettes.

Section 6. (Questions from 39 to 43)

This section is completely focused on demographic questions about our respondents. We need to identify age, gender, education, and income. We took a scales regarding education levels and average income from scale of Borisova and Kuusela (2009)**.**

By dividing into sections for each type of question, we were able to create a good online survey for our participants. Each participant is allowed to take the survey from any of their devices. Each participant can also go back to the previous section to check if they filled it out correctly. Each participant was surveyed anonymously - we did not ask for any personal information such as country, city or other identifiable information. In the demographic section of the questions, we were only interested in age, gender, level of education at the moment, and average salary per month.

Research questionnaire data is analyzed through different statistical and logical tactics and techniques. In quantitative research, data is analyzed through a statistical tool, and they described with the aid of different figures and numbers (Creswell, 2014). Data analysis techniques adopted in this research study are descriptive statistics for demographics and participants' responsiveness rate, regression analysis, correlation analysis (for independent variables and dependent variables relationship), and Hayes process for mediator and moderator variables.

2.3. Sampling

A sampling frame states to “a full list of a population upon that the sample is chosen” (Sekaran, 2013). It considers the best sampling frame that fully represents all the features of the population but in few cases, it required a full list participant, so it is essential to develop an estimated but proper list (Arbuckle, 2005).

A survey of the Russian-speaking population was chosen. The country chosen for this purpose was Belarus. The population of Belarus at the time of the study is about 9 million people. Of this number, about 7 million people are adults. According to various data, about 10-15% of this number are smokers (~7.000-10.000). This number is the main population for our study.

The respondents for this study are the adult (adult) population of Belarus or other Russian-speaking countries. We do not categorize our respondents into specific categories. They can be people from different mentalities, social backgrounds and so on. We ask respondents to indicate only their age, educational level and average salary per month (in dollars). In this study, it is important that respondents have a smoking habit and are not "novice smokers. For people who do not smoke, the survey ends after the first question, because it is important for us to conduct qualitative research specifically for the Russian-speaking population that smokes. The original survey is in Russian for the convenience of Russian-speaking respondents.

Previous studies point to two types of sampling method that can be used in order to collect participants and their answers. First is random sampling (called probability sampling) and non-random sampling (Sedgwick, 2013). According to our study, we will focused on method of sampling called convenience sampling. This method of sampling is included in non-random type. Researchers usually prefer using convenience sampling as it is quick and easy to deliver results. Even if many statisticians avoid implementing this technique, it is vital in situations where you intend to get insights in a shorter period or without investing too much money. Convenience sampling is defined as a method adopted by researchers where they collect market

research data from a conveniently available pool of respondents. It is the most commonly used sampling technique as its incredibly prompt, uncomplicated, and economical. In many cases, members are readily approachable to be a part of the sample.

Concluding the part, we will use convenience-sampling method in order to invite potential smokers to answer our survey and participate in the research.

Choosing an appropriate standard for actual sampling is an essential matter. Gill and Johnson (2002) recommended that suitable limits are needed for choosing best sample size. In order to calculate sample size for the current study. We will take 10 similar studies that have conducted surveys on the topic of smoking in their papers. Thus, it will help to calculate the average number of participants that will be needed for our survey-only.

One online survey was conducted in the United Kingdom was focuses on 362 factory-made cigarette smokers, aged 18 years and over, who had smoked in the past month (Moodie et al.,2018). The other study sample consisted of 355 students aged 13–19 years, participating in the anonymous, self-administered questionnaire adapted from the Global Youth Tobacco Survey (Kaleta, 2016). Some other survey of ever trying e-cigarettes were asked whether they ever experienced six symptoms they thought were caused by e-cigarette use. This survey included 496 US adults age 18 and over. (King et al.2018).

Current e-cigarette users were surveyed including both current cigarette smokers (n = 381). (Harrell et al.2015). Additionally, one internet survey according to the topic of opinion about e-cigarettes were presented 81 participants (Etter, 2010). Behavioral specific study of e-cigarettes, cigarettes, hookah, cigars, and smokeless tobacco were used sample of 390 from a population of 461,069 students (Cooper et al.2016).

Among participants of age from 12 to 17 years in the nationally representative Population Assessment of Tobacco and Health survey who had smoked a cigarette were asked 129 participants (Chaffee, B. W., Watkins, S. L., & Glantz, S. A., 2018). According to California adolescents' survey, it was asked around 772 respondents about their access to different tobacco products (Meyers, M. J., Delucchi, K., & Halpern-Felsher, B., 2017).

Another data were collected from 307 multiethnic 4- and 2-year college students; approximately equal proportions of current, never, and former cigarette smokers (Pokhrel, P., Fagan, P., Kehl, L., & Herzog, T. A. , 2015). Furthermore, one the study based on four independent and one dependent variables collected data from 350 university students of Karachi (Raza et al., 2018).

First method to calculate the sample size is to take the number of respondents involved in their work. In order to calculate ideal sampling size we will use following formula: we will sum

of all the results from 10 articles and will divide them on 10. In this case, we will get an amount of respondents needed for our research.

Table 1. Collected sample size of previous studies.

Author	**Sampling**	**Number of respondents**
Moodie et al.,2018	Non-probability	362
Kaleta, 2016	Non-probability	355
King et al.2018	Non-probability	496
Harrell et al.2015	Non-probability	381
Etter, 2010	Non-probability	81
Cooper et al.2016	Non-probability	390
Chaffee, Watkins, & Glantz, 2018	Non-probability	129
Meyers, Delucchi, & Halpern-Felsher, 2017	Non-probability	772
Pokhrel, Fagan, Kehl, & Herzog , 2015.	Non-probability	307
Raza et al., 2018	Non-probability	350
Average number of respondents :		362,3 (~362)

The other method to calculate sample size for the current study is to use a relevant sample size. As we have high population, we will applied formula n= (z) 2p (1-p)/ e2, where:

N-necessary sample size

Z- Standard error associated with the chosen level of confidence;

p- Estimated % in the population;

E-Acceptable sample error;

According to this we have chosen confidence level -95%; Standard error –z=1.96; Estimated percent in the population –p=50 %(0.5); Acceptable sample error-e=5 %(0.05). The population size is 5000000 people. After inserting these numbers in the formula we calculated necessary sample for this study, which is n=385.

Both of these numbers (362 and 385) are benchmarks for our sample size and in this current study, we will attempt to achieve them.

3. THE EMPIRICAL RESULTS ANALYSIS

3.1. Sample and Measurements

In this part of the research work, an empirical analysis of the data collected through the online survey was conducted. The online survey was collected among smokers in Belarus and was conducted in Russian language. Respondents' answers were collected over a three-month period, and the survey collected 301 responses from participating smokers.

Next, we present the demographics that were also collected during the participant survey. Results are presented as follows: of the 301 participants, the percentage of males was (39.5%), the percentage of females was (59.0%), and (1.3%) of the respondents chose not to say anything. See table (1).

Table 1. Sample structure by gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	119	39,5	39,5	39,5
	2	178	59,1	59,1	98,7
	3	4	1,3	1,3	100,0
	Total	301	100,0	100,0	

Source: SPSS, 2022

Further, we analyzed respondents by their age. The sample size of this mater paper consists of two age groups, which are divided into a group of participants under the age of 22 and a second group of participants between the ages of 23 and 43. Accordingly, the first group of respondents is 45, 5% and the second group of participants is the remaining percentage. See table (2).

Table 2. Sample structure by age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	5	1,7	1,7	1,7
	19	10	3,3	3,3	5,0
	20	14	4,7	4,7	9,6
	21	37	12,3	12,3	21,9
	22	71	23,6	23,6	45,5
	23	82	27,2	27,2	72,8
	24	22	7,3	7,3	80,1
	25	16	5,3	5,3	85,4
	26	7	2,3	2,3	87,7
	27	9	3,0	3,0	90,7
	28	7	2,3	2,3	93,0
	29	1	,3	,3	93,4
	30	7	2,3	2,3	95,7
	31	1	,3	,3	96,0
	32	4	1,3	1,3	97,3
	33	4	1,3	1,3	98,7
	34	2	,7	,7	99,3
	35	1	,3	,3	99,7
	43	1	,3	,3	100,0
	Total	301	100,0	100,0	

Source: SPSS, 2022

Then, we analyzed the level of education. This category in this work was further divided into four subcategories: basic education, general education, technical vocational education, secondary vocational education, and higher education.

According to this, 7, 0 % of the respondents have completed only general education. About 21,9% of respondents answered, that they currently have only basic educational level. The remaining respondents answered that they have technical vocational education (31,2%); secondary vocational education (17,9 %) and the recent respondents answered, that they have higher educational level (21,3 %). Additionally, respondent have an opportunity to choose multiple answer for that question. As we can see, the highest number of our respondents currently have technical vocational education (31,2%). See table (3)

Table 3. Sample structure by education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	,3	,3	,3
	5	1	,3	,3	,7
	1	21	7,0	7,0	7,6
	2	66	21,9	21,9	29,6
	3	94	31,2	31,2	60,8
	4	54	17,9	17,9	78,7
	5	64	21,3	21,3	100,0
	Total	301	100,0	100,0	

Source: SPSS, 2022

Finally, an important part of the analysis is data on the monthly income of our respondents. The answers of respondents were divided into four subgroups as following: first group who indicated their income as <200 USD (14, 0%); second group that indicated their income as 200-500 USD (52, 8%); third group that indicated their income as 500-1000 USD (21,3%); fourth group that indicated their income as >1000 USD (12,0%). See table (4)

Table 4. Sample structure by income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	42	14,0	14,0	14,0
	2	159	52,8	52,8	66,8
	3	64	21,3	21,3	88,0
	4	36	12,0	12,0	100,0
	Total	301	100,0	100,0	

Source: SPSS, 2022

In order to prove that this data is precise and we can rely on it for further analysis, we need to check it with reliability statistics, where the Cronbach's Alpha will show the result above. We checked all the variables one by one with the statements they include using reliability analysis.

First, we test the Habit Strength variable, which includes three statements. The purpose of this analysis is to prove the reliability of these three statements. In addition, we need to test whether the three statements measure health strength well and fit well enough. See table (5).

Table 5. Results of reliability statistics for Health Strength variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,481	3

Source: SPSS, 2022

In this kind of analysis, we need to look at Cronbach's Alpha result. Cronbach's alpha is one of the most widely used measures of reliability (Cronbach, 1951). Cronbach's alpha reliability used to describe the reliability of a sum (or average) of q measurements where the q measurements may represent q raters of forms, or questionnaire/test items (Bonett & Wright, 2014). According to previous research, we find out that the Cronbach's Alpha result should be above 0,6. If it equals 0,6, it can be concluded that the reliability of variables is approved.

According to this Master paper analysis, the Cronbach's Alpha showing 0,487, which is not satisfactory as it need to show result above 0,6. Nevertheless, we decided to continue analyzing to collect the results for other variables and make overall conclusion about the situation.

After that, we analyzed Personal Innovativeness. This scale is the biggest from all others and consists of ten statements. See table (6)

Table 6. Results of reliability statistics for Personal Innovativeness variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,459	10

Source: SPSS, 2022

In that case, we can see Cronbach's Alpha showing 0,459 for 10 items.

After that, we analyzed Health Consciousness. This scale consists of five statements. See table (7)

Table 7. Results of reliability statistics for Health Consciousness variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,446	5

Source: SPSS, 2022

In this case, we can see Cronbach's Alpha showing 0,446 for five items.

Then we took Observability variable, which consists of three statements. See table (8).

Table 8. Results of reliability statistics for Observability variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,283	3

Source: SPSS, 2022

In this case, we can see that Cronbach's Alpha is too low and showing 0,283 for 3 items. Unfortunately, this can happen due to different reasons and with this particular case, we have only three statements under this variable.

According to our model, we took Personal Compatibility, which consists of three statements. See table (9)

Table 9. Results of reliability statistics for Personal Compatibility variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,412	3

Source: SPSS, 2022

In this case, we can see Cronbach's Alpha showing 0,412 for these three items.

Then Social Compatibility was analyzed, which consists of three statements as well. See table (10).

Table 10. Results of reliability statistics for Social Compatibility variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,383	4

Source: SPSS, 2022

In this case, we can see Cronbach's Alpha showing 0,383, which is also a low result for these three items.

The next one to analyze was Relative Advantage by attribute. This variable consists of three statements as well. See table (11).

Table 11. Results of reliability statistics for Relative Advantage by attribute variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,298	3

Source: SPSS, 2022

In that case, we can see Cronbach's Alpha showing 0,298 for these three items. It is showing a little bit higher results than was showed for Observability variable, but still extremely low for this analysis.

Next was Relative Economic Advantage**,** which consists of three statements as well. See table (12).

Table 12. Results of reliability statistics of Relative Economic Advantage variable.

Reliability Statistics

Cronbach's Alpha	N of Items
,379	3

Source: SPSS, 2022

In this case, we can see Cronbach's Alpha showing 0,379 for these three items.

Finally, we analyzed Intention**,** which consists of four statements. See table (13)

Table 13. Results of reliability statistics of Intention variable

Reliability Statistics

Cronbach's Alpha	N of Items
,485	4

Source: SPSS, 2022

In this case, we can see Cronbach's Alpha showing 0,485 for four items.

According to the figures that were presented, it is clear that Cronbach's Alpha is too low, as it normally should be 0,6 and above, while each result that we get from each variable appeared to be less than 0,6. It was impossible to understand why the data has such characteristics, since it has been collected using one of the typical platforms and employing tested scales of each variable. No technical mistake in reliability calculations was found either. Since there are no possibilities to collect new data, this data will be used for further analysis, considering the findings with care. All this information will be considered while processing all other results.

3.2. Test of hypotheses

In this section of empirical analysis, we will need to test our hypotheses. As we already mentioned, the Cronbach's Alpha results are very low, therefore we will interpret calculation on regression analysis with care.

The analysis will be divided into three parts. First, we will be analyzing the regression between personal factors (personal innovativeness and health consciousness) and intention to adopt e-cigarettes. Then we will analyze the regression between perceived characteristics of innovation (observability, personal and social compatibility, relative economic advantage and relative advantage by attribute) and intention to adopt e-cigarettes. Finally, moderation analysis habit strength and impact of habit strength on intention to adopt e-cigarettes will be analyzed.

First, two hypotheses that predict intention to adopt e-cigarettes on the basis of personal characteristics will be tested (see table 14). The test is performed based on multiple regression analysis. The multiple regression includes independent variables (personal factors and perceived characteristics of innovation) and dependent variables (intention to adopt e-cigarettes). See table (14).

Table 14. Results of testing personal factor variables.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8,053	2	4,027	7,862	<,001[b]
	Residual	152,620	298	,512		
	Total	160,674	300			

a. Dependent Variable: INTENTION

b. Predictors: (Constant), HEALTH_C, INNOVAT_P

Source: SPSS, 2022

The model is considered significant when p is significant. In our case the p<0,001; F=7,862, which means that model is appropriate.

Table 15. Model summary for personal factor variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,224[a]	,050	,044	,71565

a. Predictors: (Constant), HEALTH_C, INNOVAT_P

Source: SPSS, 2022

Model summary (see table 15) explains only 4,4% of dependent variable. Though it is desirable to have higher percentage, in this case this is appropriate, since the analysis includes only two predictors that not necessarily are the most important for the dependent variable (but are important for this study).

Table 16. Coefficients for personal factor variables.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,055	,359		5,716	<,001
	INNOVAT_P	,202	,088	,132	2,297	,022
	HEALTH_C	,190	,070	,157	2,731	,007

a. Dependent Variable: INTENTION

Source: SPSS, 2022

After model summary, we are moving to Coefficients table (16). The significance for each tested variable should present p>0,05 result. In this case, Personal Innovativeness shows p=0,022, which is below 0,05. This means that impact of Personal Innovativeness on Intention to adopt e-cigarettes is significant. Personal Innovativeness affects Intention positively (beta=0,132).

Hypothesis 1: Positive impact of Personal innovativeness to intention to adopt e-cigarettes is approved.

Health Consciousness shows p=0,007. This means that Health Consciousness affects Intention to adopt e-cigarettes positively (beta=0,157).

Hypothesis 2: Positive impact of Health consciousness to intention to adopt e-cigarettes is approved.

In this second section, we will test hypotheses H3, H4, H5, H6, and H7, which are linked to perceived characteristics variables and intention to adopt e-cigarettes. This will be done with the help of multiple regression between perceived characteristics of innovation (observability, personal and social compatibility, relative economic advantage and relative advantage by attribute) and intention to adopt e-cigarettes.

Table 17. Results of testing perceived characteristics of innovation variables.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38,007	5	7,601	18,281	<,001[b]
	Residual	122,666	295	,416		
	Total	160,674	300			

a. Dependent Variable: INTENTION

b. Predictors: (Constant), REL_EC, REL_A_A, OBSERV, COMP_SOC, COMP_PERS

Source: SPSS, 2022

According to ANOVA table (17), in our case we can see that the p<0,001; F=18,281. This means that the model is significant.

Table 18. Model summary for perceived characteristics of innovation variables.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,486[a]	,237	,224	,64484

a. Predictors: (Constant), REL_EC, REL_A_A, OBSERV, COMP_SOC, COMP_PERS

Source: SPSS, 2022

In a Model summary table (18), we can see results, showing that it is explains about 22,4% of the dependent variable, which is appropriate.

Table 19. Coefficients for perceived characteristics of innovation variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	,700	,335		2,090	,038
	OBSERV	,078	,054	,074	1,437	,152
	COMP_PERS	,280	,050	,306	5,605	<,001
	COMP_SOC	,187	,061	,165	3,048	,003
	REL_A_A	,129	,051	,132	2,515	,012
	REL_EC	,106	,049	,114	2,164	,031

a. Dependent Variable: INTENTION

Source: SPSS, 2022

Out of all included independent variables, only impact of observability on the intention to adopt e-cigarettes is not significant (p=0,152). These results show no positive impact of observability on intention.

Hypothesis 3: Observability positive impact on intention to adopt e-cigarettes is rejected.

In all other cases p values are below 0,05, which means that these impacts are significant. More specifically, significance of relationship between personal compatibility and intention to adopt e-cigarettes is p<0,001. This means that personal compatibility affects Intention to adopt e-cigarettes positively (beta=0,306).

Hypothesis 4: The positive impact of Personal compatibility on intention to adopt e-cigarettes is approved.

As for social compatibility variable, the result shows p<0,003. This means that social compatibility affects intention to adopt e-cigarettes positively (beta=0,165).

Hypothesis 5: Social compatibility's positive impact on intention to adopt e-cigarettes is approved.

Relative advantage by attribute shows p=0,012 result. In this case p values are below 0,05, which means that this impact is significant. This means that Relative advantage by attribute affects Intention to adopt e-cigarettes positively (beta=0,132).

Hypothesis 6: Relative advantage by attribute's positive impact on intention to adopt e-cigarettes is approved.

Relative economical advantage shows p=0,031 result. In this case p values are below 0,05, which means that this impact is significant This means that Relative economical advantage affects Intention to adopt e-cigarettes positively (beta=0,114). Thus, we can conclude that hypothesis 7 is approved.

Hypothesis 7: Relative economical advantage's positive impact on intention to adopt e-cigarettes is approved.

As our model also includes the moderator variable - Habit Strength, we need to process linear regression between Habit strength and Intention to adopt e-cigarettes as well as with variables before. See table 20.

Table 20. Results of testing moderator variable

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,111	1	4,111	7,851	,005[b]
	Residual	156,563	299	,524		
	Total	160,674	300			

a. Dependent Variable: INTENTION

b. Predictors: (Constant), HABIT_S

Source: SPSS, 2022

According to ANOVA table (20), we can see that in our case it shows that the p=0,005; F=7,851. This means that the model is significant.

Table 21. Model summary for Habit Strength moderator

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,160[a]	,026	,022	,72362

a. Predictors: (Constant), HABIT_S

Source: SPSS, 2022

In the Model summary table (21), we can see results, showing that it explaind about 2,2% of the dependent variable, which is appropriate as we have only two variables there.

Table 22. Model summary for Habit Strength moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,880	,204		14,107	<,001
	HABIT_S	,152	,054	,160	2,802	,005

a. Dependent Variable: INTENTION

Source: SPSS, 2022

In the case showed in table (22), p values are below 0,05, which means that this impact is significant. More specifically, significance of relationship between Health consciousness and Intention to adopt e-cigarettes is p<0,001. This means that Health consciousness affects Intention to adopt e-cigarettes positively (beta=0,160) and there is no negative impact.

Hypothesis 13: Habit strength of smoking regular cigarettes' negative impact on intention to adopt e-cigarettes is rejected.

In that part, we need to provide additional testing procedure for the H8, H9, H10, H11 and H12. This will be done with the help of analysis with Process for moderations.

We will start this analyzing process from the dependent variable (intention), independent variable (observability) and moderator (habit strength).

Table 23. Process analysis

```
OUTCOME VARIABLE:
 OBS

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1817      ,0330      ,4704     3,3799     3,0000   297,0000      ,0187

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,4726      ,0399    87,0811      ,0000     3,3941     3,5511
INTENT        ,1376      ,0556     2,4741      ,0139      ,0281      ,2470
HABIT_S      -,0786      ,0531    -1,4806      ,1398     -,1831      ,0259
Int_1         ,1017      ,0584     1,7414      ,0826     -,0132      ,2167

Product terms key:
 Int_1    :        INTENT    x        HABIT_S

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0099     3,0325     1,0000   297,0000      ,0826
```

Source: SPSS, 2022

According to the table we can see the significance result p=0,187 and F=3, 3799; which is not acceptable. It means that the hypothesis cannot be accepted.

Hypothesis 8: Habit strength's negative moderation of impact of observability on intention to adopt e-cigarettes is rejected.

Another analysis was run for dependent variable (intention), independent variable (personal compatibility) and moderator (habit strength).

Table 24. Process analysis

```
OUTCOME VARIABLE:
 COMP_P

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4242      ,1800      ,5274    21,7279     3,0000   297,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,5451      ,0422    83,9611      ,0000     3,4620     3,6282
INTENT        ,4145      ,0589     7,0403      ,0000      ,2986      ,5304
HABIT_S       ,1015      ,0562     1,8066      ,0718     -,0091      ,2122
Int_1        -,0648      ,0619    -1,0469      ,2960     -,1865      ,0570

Product terms key:
 Int_1    :        INTENT    x        HABIT_S

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0030     1,0960     1,0000   297,0000      ,2960
```

Source: SPSS, 2022

According to the table we can see the significance result p=0,000 and F=21, 7279; which is acceptable. We can make conclusion that this hypothesis can be accepted and it is approved.

Hypothesis 9: Habit strength's negative moderation of impact of personal compatibility on intention to adopt e-cigarettes is approved.

Additional analysis was run for dependent variable (intention), independent variable (social compatibility) and moderator (habit strength).

Table 25. Process analysis

```
OUTCOME VARIABLE:
 COMP_S

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3198      ,1023      ,3790    11,2780     3,0000   297,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,5965      ,0358   100,4815      ,0000     3,5261     3,6670
INTENT        ,2439      ,0499     4,8865      ,0000      ,1457      ,3421
HABIT_S       ,0745      ,0476     1,5629      ,1191     -,0193      ,1682
Int_1        -,0486      ,0524     -,9271      ,3546     -,1518      ,0546

Product terms key:
 Int_1    :        INTENT    x        HABIT_S

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0026      ,8594     1,0000   297,0000      ,3546
```

Source: SPSS, 2022

According to the table we can see the significance result p=0,000 and F=11, 2780; which I san acceptable result. We can make conclusion that this hypothesis can be accepted as well as the previous one.

Hypothesis 10: Habit strength's negative moderation of impact of social compatibility on intention to adopt e-cigarettes is approved.

The next analysis was run for dependent variable (intention), independent variable (relative advantage by attribute) and moderator (habit strength).

Table 26. Process analysis

```
OUTCOME VARIABLE:
 REL_A_A

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2521      ,0635      ,5377     6,7164     3,0000   297,0000      ,0002

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,4777      ,0426    81,5704      ,0000     3,3938     3,5616
INTENT        ,2049      ,0594     3,4471      ,0006      ,0879      ,3219
HABIT_S      -,0105      ,0568     -,1858      ,8527     -,1222      ,1011
Int_1        -,1333      ,0625    -2,1344      ,0336     -,2562     -,0104

Product terms key:
 Int_1    :        INTENT    x        HABIT_S

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0144     4,5557     1,0000   297,0000      ,0336
```

Source: SPSS, 2022

According to the table (26) we can see the significance result p=0,002 and F=6, 7146; which is an acceptable result. We can make conclusion that this hypothesis can be accepted as well as the previous one.

Hypothesis 11: Habit strength's negative moderation of the impact of relative advantage by attribute on intention to adopt e-cigarettes is approved.

The rest process analysis was running for dependent variable (intention), independent variable (relative economic advantage) and moderator (habit strength).

Table 27. Process analysis

```
OUTCOME VARIABLE:
 REL_EC

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2415      ,0583      ,5820     6,1321     3,0000   297,0000      ,0005

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,3888      ,0444    76,4022      ,0000     3,3015     3,4761
INTENT        ,2110      ,0618     3,4118      ,0007      ,0893      ,3327
HABIT_S       ,0225      ,0590      ,3805      ,7038     -,0937      ,1387
Int_1        -,1068      ,0650    -1,6441      ,1012     -,2347      ,0210

Product terms key:
 Int_1    :        INTENT    x        HABIT_S

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0086     2,7032     1,0000   297,0000      ,1012
```

Source: SPSS, 2022

According to the table (27) we can see the significance result p=0,005 and F=6, 1321; which is an acceptable result. We can make conclusion that this hypothesis can be accepted as well as the previous one.

Hypothesis 12: Habit strength's negative moderation of impact of relative economic advantage on intention to adopt e-cigarettes is approved.

Table 28. Accepted/Rejected Hypothesis

Number of hypothesis	Statement	Accepted/Rejected
Hypothesis 1	Personal innovativeness has positive impact to intention to adopt e-cigarettes.	Accepted
Hypothesis 2	Health consciousness has positive impact to intention to adopt e-cigarettes.	Accepted
Hypothesis 3	Observability has positive impact to intention on adopt	Rejected

	e-cigarettes.	
Hypothesis 4	Personal compatibility has positive impact on intention to adopt e-cigarettes.	Accepted
Hypothesis 5	Social compatibility positive impact on intention to adopt e-cigarettes.	Accepted
Hypothesis 6	Relative advantage by attribute has positive impact on intention to adopt e-cigarettes.	Accepted
Hypothesis 7	Relative economical advantage has positive impact on intention to adopt e-cigarettes.	Accepted
Hypothesis 8	Habit strength negatively moderates impact of observability on intention to adopt e-cigarettes.	Rejected
Hypothesis 9	Habit strength negatively moderates impact of personal compatibility on intention to adopt e-cigarettes.	Accepted
Hypothesis 10	Habit strength negatively moderates impact of social compatibility on intention to adopt e-cigarettes.	Accepted
Hypothesis 11	Habit strength negatively moderates impact of relative advantage by attribute on intention to adopt e-cigarettes.	Accepted
Hypothesis 12	Habit strength negatively moderates impact of relative economic advantage on inten-	Accepted

	tion to adopt e-cigarettes.	
Hypothesis 13	Habit strength of smoking regular cigarettes negatively impact intention to adopt e-cigarettes.	Rejected

According to this table, we can conclude that most of the hypothesis presented in part 2.1. are accepted for our model and Mater paper. Additionally, during our analysis we rejected H3 and H8 that included observability. According to H3 it can be simply said that those smokers who have opportunity to watch others smoking e-cigarettes will not switch from traditional cigarettes. The H8 that habit strength negatively moderates impact of observability on intention to adopt e-cigarettes was additionally rejected. In other words, smokers will not switch from traditional cigarettes just because of observability, but in that case habit strength can play a big role for switching. The role of habit there is huge.

3.3 Discussion and interpretation

This part concludes the entire third part of this Master's thesis by providing general conclusions for the empirical results, summarizing the overall research and hypotheses. The results obtained in the study have some limitations, which were found during the process. For example, limitations according to Cronbach's Alpha. The results were presented with unexpectedly low reliability. Unfortunately, the explanation for such results was not found during the empirical research. However, we can assume that it can be some technical processes or some other technical reasons. Since the results of our study have certain gaps, it was necessary to compare it with previous results of the studies presented in parts 1.2.1-1.2.3. Every study under the topic of e-cigarettes was presented in a different way. However, this comparative analysis will help to find similarities and major differences.

After the model reliability analysis, hypothesis testing was conducted. H3, H8 and H13 were rejected during the study, all others were confirmed. The main purpose of the hypotheses was to test them on how they affect the intention to adopt e-cigarettes. During all hypotheses testing, the regression analysis rejected the positive effects of observation, negative habit strength moderation of impact of observability on intention to adopt e-cigarettes, and negative impact of habit strength of smoking regular cigarettes on intention to adopt e-cigarettes.

In addition, the positive effect of health consciousness on the intention to use e-cigarettes has been confirmed (p=0,007). This can be compared to some other studies that have cited e-cigarettes as a suitable nicotine replacement therapy option to help smokers quit and become a harmless alternative (Löhler and Wollenberg, 2019). Some other findings showed that among college students, perceptions of harm and addictiveness of e-cigarettes are lower (p<0.001, all comparisons) than those for traditional cigarettes (Cooper et al., 2017).

In our case, only impact of observability on the intention to adopt e-cigarettes is not significant (p=0,152). These results show no positive impact of observability on intention. In comparison, Trumbo & Harper, (2015) study showed that the most positive innovation attributes were observability (p>0,001) and relative advantage (p>0,001).

In all other cases p values are below 0,05, which means that these impacts are significant. More specifically, significance of relationship between personal compatibility and intention to adopt e-cigarettes is p<0,001. This means that personal compatibility affects Intention to adopt e-cigarettes positively. As for social compatibility variable, the result shows p<0,003. Similar results were presented by Trumbo & Harper, (2015), where compatibility r = .59 p <.01 M = 5.1 SD = 1.96 and advantage r = .71 p <.01 M = 5.38 SD = 2.05 (Trumbo & Harper, 2015).

Conclusions and recommendations

The research question this study aims to identify is the influence of personal characteristics and perceived characteristics of innovation on intention to adopt e-cigarettes. The goal was to identify them all and collect the most important ones for our research and analyses. Accordingly, provide the conclusion and recommendations for the further researchers and studies.

1. Smokers consider e-cigarettes to be more reliable because of its high awareness everywhere. E-cigarettes advertising increases as well as people who start to use e-cigarettes, like close friends, relatives etc. Especially young people are frequent users of different media like websites, such as YouTube, Facebook, Twitter or retail channels, books, TV and movies. This conclusion can be helpful for researchers aiming to know more about e-cigarettes advertising and ways of awareness.

2. The results show that even a controversial product like e-cigarettes can adapt well in the innovation market and generate widespread interest among different categories of people. One of the biggest factors in the decision to adopt to e-cigarettes may be health consciousness and it is well presented in current study as moderation between different factors applied. In our study, we spend a considerable amount of time researching the alternative and less dangerous way of smoking and this may be very important for further researches who will collect data according to e-cigarettes.

3. According to the theoretical background, one of the most important characteristics is smoking habit. For lots of smokers, the process of smoking is something intimate, that they do for relaxation and to calm down. As long as we speaking about smoking, the habit strength plays a big role. It helps those people who do not want to stop their smoking rituals to adopt to e-cigarettes.

4. As people nowadays are worrying about their health and environment around, the health consciousness represents an important component in our study. It is also a moderator for the model and is in one way or another related to each variable.

5. Perceived characteristics of innovation played an important role when talking about innovations as well. In general, innovations that are perceived by receivers as having greater relative advantage, compatibility and observability, will be adopted more rapidly than other innovations. Additionally, there were find really limited studies that refer to perceived characteristics before as much as we do for our research.

6. Evidence from innovation adoption models can be applied in the e-cigarettes and create a good model based on this. Keeping in mind, that we created research model, consisting of perceived characteristics and personal factors of innovations, which is moderated by health consciousness.

7. According to the analysis, we can see from the tables (15), (18) and (21) the percentage of dependent variable it shows. The perceived characteristics of innovation variables (observability, personal compatibility, social compatibility, relative advantage by attribute and relative economic advantage) gives explanation of 22,4% of dependent variable. The percent is still not very big because we did not have much variables to analyze in this case. Nevertheless, these variables are most important from the model and can influence intention to switch off from traditional cigarettes and use e-cigarettes. Since we found out that these number of variable is important. Based on this conclusion, we can recommend other researches to search more about them and to stress on this in promoting of e-cigarettes.

8. As we already mention during the research, there were some gaps and limitations. In one of the stages of analysis, we found that the values are not as we had originally expected them to be. In our case, we meet issues with Cronbach's alpha reliability. According to previous research, we found out that the Cronbach's Alpha result was not reliable for our model. According to this Master paper analysis, the Cronbach's Alpha showing 0,487, which is not satisfactory as it needs to show result above 0,6. Nevertheless, we decided to continue the analysis to collect the results for other variables and make overall conclusion about the situation. Based on that we strongly recommended other researches to work more on that case, as for this current study we met a problem.

9. Additionally, during our analysis we rejected H3 and H8 that included observability in them. According to H3 it can be simply said that those smokers who have opportunity to watch others smoking e-cigarettes will not switch from traditional cigarettes. The H8 that habit strength has negative moderation impact of observability on intention to adopt e-cigarettes was additionally rejected. In other words, smokers will not switch from traditional cigarettes just because of observability, but in that case, habit strength can play a big role in switching. The role of habit there is huge that is why we would like to recommend other researches to study more on that topic in case of e-cigarettes.

Based on this conclusion, we can provide our recommendation to the sellers who are aiming to sell innovative products nowadays. We present e-cigarettes as one of the profitable products on market nowadays and companies need to take this into account when exploring the

market today. The rise of the e-cigarettes industry is increasing rapidly and nowadays we can see it daily.

1. Given that e-cigarettes are not as restrictive in sales, distribution and advertising as traditional cigarettes, retailers are still not actively pursuing this opportunity. The fact that e-cigarettes are not strictly restricted allows them to spread the word to a larger audience, take advantage of advertising that is prohibited for traditional cigarettes, and attract potential customers. We would encourage retailers to pay attention to this factor.

2. The fact that e-cigarettes are starting to hit the market gives retailers a great opportunity to develop the idea and the very concept that e-cigarettes are a unique and alternative product with a huge number of perks, such as different flavors, rich smoke and stylish design. This can be a really attractive factor for both sellers and potential buyers-smokers.

3. E-cigarettes can be a good alternative to regular tobacco cigarettes, with fewer side effects; however, more scientific research on the subject and raising the issue among different groups of people is needed. We recommend that future scientific researchers, especially those involved in health and environmental research, continue further toxicological studies, including their chronic effects, the effects of e-cigarette components on human health and the body.

SUMMARISING (English)

With summarizing of this study research, it is important to mention that innovations in today's society playing a huge role. Modern society is much affected and need to adjusts to certain innovations such as products. Innovative products are often related to important aspects of life such as health, personality, habit and etc. In this study we have paid much attention to these aspects. Drawing on a wide range of the innovation literature sources and the importance determinate below, this study was aimed to identify the influence of personal characteristics and perceived characteristics of innovation on intention to adopt e-cigarettes. During the current research process, the research model was created with help of Diffusion of Innovations Theory. Additionally, we added one important moderator variable – habit strength which originally was not included but is very important for the current research as linked with all the perceived characteristics of innovations and intention as well as moderator. Our study showing the strong connection between personal factors of innovation with intention to adopt e-cigarettes, where all the variables are significant. Study also showing connection between perceived characteristics of innovation with intention to adopt e-cigarettes, where only observability was not significant. Additionally, the connection between perceived characteristics, habit strength and intention was also presented and showed that observability is not significant. All these conclusions are supported with the calculations and analyses made in SPSS. We also presented demographic data which is very important in order to understand the potential target of e-cigarettes nowadays. The research answers to the important questions regarding the e-cigarettes innovativeness nowadays and various factors that influence to this process. The research results can be important and used for the other researches, who would be interested in topic of e-cigarettes adoption and various health studies, who would need to collect this data for their articles. In conclusion, e-cigarettes could be a good innovative product and alternative to conventional tobacco cigarettes, with less dangerous effects for the potential smokers.

SUMMARIZING (Lithuanian)

Apibendrinant šį tyrimą svarbu paminėti, kad inovacijos šiuolaikinėje visuomenėje vaidina didžiulį vaidmenį. Šiuolaikinė visuomenė yra labai paveikta ir turi prisitaikyti prie tam tikrų naujovių, pavyzdžiui, produktų. Inovatyvūs produktai dažnai susiję su svarbiais gyvenimo aspektais, tokiais kaip sveikata, asmenybė, įpročiai ir kt. Šiame tyrime šiems aspektams skyrėme daug dėmesio. Remdamiesi įvairiais literatūros šaltiniais apie inovacijas ir toliau nustatyta svarba , šiuo tyrimu siekėme nustatyti asmeninių savybių ir suvoktų inovacijų ypatumų įtaką ketinimui įsidiegti e. cigaretes . šio tyrimo metu , pasitelkus inovacijų difuzijos teoriją , buvo sukurtas tyrimo modelis. Be to, pridėjome vieną svarbų moderatoriaus kintamąjį - įpročio stiprumą, kuris iš pradžių nebuvo įtrauktas, tačiau yra labai svarbus šiam tyrimui, nes susijęs su visomis suvoktomis inovacijų charakteristikomis ir ketinimu bei moderatoriumi. Mūsų tyrimas, rodantis stiprų ryšį tarp asmeninių inovacijų veiksnių ir ketinimo įsidiegti e. cigaretes, kai visi kintamieji yra reikšmingi. Tyrimas taip pat rodo ryšį tarp suvoktų naujovių savybių ir ketinimo įsidiegti e. cigaretes, kur tik stebimumas nebuvo reikšmingas. Be to, taip pat pateiktas ryšys tarp suvokiamų savybių , įpročio stiprumo ir ketinimo, kuris parodė, kad stebimumas nėra reikšmingas. Visas šias išvadas patvirtina SPSS atliktų skaičiavimų ir analizių duomenys. Taip pat pateikėme demografinius duomenis, kurie yra labai svarbūs siekiant suprasti, kam šiuo metu gali būti skirtos e. cigaretės. Tyrimas atsako į svarbius klausimus, susijusius su e. cigarečių inovatyvumu šiais laikais ir įvairiais šiam procesui įtaką darančiais veiksniais. Tyrimo rezultatai gali būti svarbūs ir naudojami kitiems mokslininkams, kurie domisi e. cigarečių diegimo tema, ir įvairiuose sveikatos tyrimuose, kuriems reikėtų surinkti šiuos duomenis savo straipsniams. Apibendrinant galima teigti, kad e. cigaretės galėtų būti geras naujoviškas produktas ir alternatyva įprastoms tabako cigaretėms, kurios turėtų mažiau pavojingą poveikį potencialiems rūkaliams.

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Appendix 1

E-cigarettes are of great interest in today's society, being a truly innovative product. Thus, researchers at Vilnius University have for some time been studying this innovative product, and the peculiarity of people's intention to switch to electronic cigarettes instead of the traditional, familiar cigarettes. There are no correct or incorrect answers in this survey, we just would like to know your opinions and preferences. In the survey, participants will be interviewed anonymously, data will be used just in an aggregated form.. We will ask participants to answer all questions one at a time.

We will begin this survey with questions about your personal interests and habits to get to know participants better.

1. Do you smoke?

1.Yes	2.No (Finish the survey)

2. Smoking of traditional cigarettes is something I am frequently doing. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

3. Smoking of traditional cigarettes is something I do without thinking. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

4. Smoking of traditional cigarettes is something I have been doing for a long time. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree

3. Neither agree nor disagree
4. Agree
5. Strongly agree

5. I often buy innovative products that challenge the strengths and weaknesses of my intellectual skills. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

6. I often buy new products that make me think logically. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

7. I find innovations that need a lot of thinking intellectually challenging and therefore I buy them instantly. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

8. I mostly buy those innovations that satisfy my analytical mind.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

9. If a new time saving product is launched, I will buy it right away.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

10. Innovations make my life exciting and stimulating.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

11. The discovery of novelties makes me playful and cheerful.

Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

12. It gives me a good feeling to acquire new products. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

13. Using novelties gives me a sense of personal enjoyment. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

14. I like to own a new product that distinguishes me from others who do not own this new product. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree

3. Neither agree nor disagree
4. Agree
5. Strongly agree

15. I reflect about myself a lot. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
6. Strongly disagree
7. Disagree
8. Neither agree nor disagree
9. Agree
10. Strongly agree

16. I am very self-conscious about my health. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
11. Strongly disagree
12. Disagree
13. Neither agree nor disagree
14. Agree
15. Strongly agree

17. I am constantly examining my health. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
16. Strongly disagree
17. Disagree
18. Neither agree nor disagree
19. Agree
20. Strongly agree

18. I am very involved with my health. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
21. Strongly disagree
22. Disagree
23. Neither agree nor disagree
24. Agree
25. Strongly agree

19. I am aware of the state of my health as I go through the day. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
26. Strongly disagree
27. Disagree
28. Neither agree nor disagree
29. Agree
30. Strongly agree

20. I can observe e-cigarettes being used by others. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

21. If I adopted e-cigarettes, others could see me using it. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

22. It would be common to see e-cigarettes in use by others. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

23.E-cigarettes compliments with product currently use. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

24. E-cigarettes are keep the potential a self-image good.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

25. E-cigarettes will fit my lifestyle.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

26. Using e-cigarettes are socially acceptable.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree

2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

27. Adopting use of e-cigarettes will be approved by my friends and family.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

28. Using e-cigarettes would be appropriate.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

29. Many of my friends would like to use e-cigarettes.
Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with

each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
6. Strongly disagree
7. Disagree
8. Neither agree nor disagree
9. Agree
10. Strongly agree

30. E-cigarettes are more comfortable to use than traditional cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
11. Strongly disagree
12. Disagree
13. Neither agree nor disagree
14. Agree
15. Strongly agree

31. E-cigarettes are available in more locations than traditional cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
16. Strongly disagree
17. Disagree
18. Neither agree nor disagree
19. Agree
20. Strongly agree

32. E-cigarettes are more reliable than traditional cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
21. Strongly disagree
22. Disagree
23. Neither agree nor disagree
24. Agree
25. Strongly agree

33. I need to buy e-cigarettes less often than traditional cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
26. Strongly disagree
27. Disagree
28. Neither agree nor disagree
29. Agree
30. Strongly agree

34. E-cigarettes allows me to reduce costs price. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
31. Strongly disagree
32. Disagree
33. Neither agree nor disagree
34. Agree
35. Strongly agree

35. E-cigarettes has favorable price/quality relations in comparison with traditional cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
36. Strongly disagree
37. Disagree
38. Neither agree nor disagree
39. Agree
40. Strongly agree

36. I intend to buy e-cigarettes in the near future. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
41. Strongly disagree
42. Disagree
43. Neither agree nor disagree
44. Agree
45. Strongly agree

37. I believe my interest towards e-cigarettes will increase in the future. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
46. Strongly disagree

47. Disagree
48. Neither agree nor disagree
49. Agree
50. Strongly agree

38. I intend to buy e-cigarettes as much as possible. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
51. Strongly disagree
52. Disagree
53. Neither agree nor disagree
54. Agree
55. Strongly agree

39. I would recommend other smokers to buy e-cigarettes. Please rate your answer to the following questions on a 5-point scale by noting your level of agreement with each statement: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree.
1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

40. Please, indicate your gender

1. Woman
2. Man
3. Prefer not to say
41. Please, write down how old you are now.
1. Your answer….
42. Please, choose education level you have currently.
1. Basic education
2. General education
3. Technical vocational education
4. Nebaigtas aukštasis neuniversitetinis (kolegija, aukštesnysis)
5. Secondary vocational education
6. Higher education
43. Please, mark what average income you have.
1. <200 USD
2. 200-500 USD

3. 500-1000 USD
4. >1000 USD
We thank you for participating in this survey for a research paper. We hope to collaborate with you on future research projects!

Appendix 2

Электронные сигареты вызывают большой интерес в современном обществе, являясь поистине инновационным продуктом. Поэтому исследователи Вильнюсского университета уже некоторое время изучают этот инновационный продукт, а также особенности намерения людей перейти на электронные сигареты вместо традиционных, привычных сигарет. В этом опросе нет правильных или неправильных ответов, мы просто хотели бы узнать ваше мнение и предпочтения. Участники будут опрошены анонимно, данные будут использованы только в агрегированном виде. Мы попросим участников ответить на все вопросы по очереди.

1. Вы курите?	
1.Да	2.Нет (Закончить опрос)

2. Курение традиционных сигарет - это то, что я часто делаю. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

3. Курение традиционных сигарет - это то, что я делаю, не задумываясь. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

4. Курение традиционных сигарет - это то, чем я занимаюсь уже долгое время. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен

2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

5. Я часто покупаю инновационные продукты, которые бросают вызов сильным и слабым сторонам моих интеллектуальных способностей. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

6. Я часто покупаю новые продукты, которые призывают меня мыслить логически. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

7. Я считаю новинки, требующие долгих размышлений, интеллектуально сложными и поэтому покупаю их не задумываясь. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

8. В основном я покупаю те новинки, которые удовлетворяют мой аналитический ум. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

9.Если появляется новый продукт, экономящий мое время, я сразу же покупаю его. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет

4. Согласен
5. Полностью согласен

10. Инновации делают мою жизнь захватывающей и стимулирующей. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

11. Открытие новинок делает меня игривым и жизнерадостным. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

12. Мне приятно приобретать новые продукты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.

1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

13. Использование новых продуктов дает мне чувство личного удовлетворения. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

14. Мне нравится владеть новым продуктом, потому как он отличает меня от тех, кто не владеет этим новым продуктом. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет

4. Согласен
5. Полностью согласен

15. Я много думаю о своем здоровье. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

16. Я пристально слежу за своим здоровьем. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

17. Я часто проверяю состояние своего здоровья.
Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

18. Я очень внимательно отношусь к своему здоровью.
Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

19. Я слежу за состоянием своего здоровья в течение дня.
Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен

3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

20. Я нередко наблюдаю, как другие используют электронные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

21. Если бы я начал(а) использовать электронные сигареты, другие могли бы также это наблюдать. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

22. Электронные сигареты дополняют используемые в настоящее время традиционные сигареты.

Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.

1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

23. Электронные сигареты поддерживают самовосприятие.

Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.

1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

24. Электронные сигареты соответствуют моему образу жизни.

Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.

1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет

4. Согласен
5. Полностью согласен

25. Использование электронных сигарет является социально приемлемым. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
6. Полностью не согласен
7. Не согласен
8. Отчасти согласен, отчасти нет
9. Согласен
10. Полностью согласен

26. Использования электронных сигарет будет одобрено моими друзьями и семьей. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
11. Полностью не согласен
12. Не согласен
13. Отчасти согласен, отчасти нет
14. Согласен
15. Полностью согласен

27. Использование электронных сигарет является целесообразным. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего

согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
16. Полностью не согласен
17. Не согласен
18. Отчасти согласен, отчасти нет
19. Согласен
20. Полностью согласен

28. Многие из моих друзей хотели бы использовать электронные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
21. Полностью не согласен
22. Не согласен
23. Отчасти согласен, отчасти нет
24. Согласен
25. Полностью согласен

29. Электронные сигареты более удобны в использовании, чем традиционные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
26. Полностью не согласен
27. Не согласен

28. Отчасти согласен, отчасти нет
29. Согласен
30. Полностью согласен

30. Электронные сигареты доступны в большем количестве мест, чем традиционные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
31. Полностью не согласен
32. Не согласен
33. Отчасти согласен, отчасти нет
34. Согласен
35. Полностью согласен

31. Электронные сигареты более надежны, чем традиционные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
36. Полностью не согласен
37. Не согласен
38. Отчасти согласен, отчасти нет
39. Согласен
40. Полностью согласен

32. Мне нужно покупать электронные сигареты реже, чем традиционные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

33. Электронные сигареты позволяют мне снизить затраты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен
2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

34. Электронные сигареты имеют благоприятное соотношение цена/качество по сравнению с традиционными сигаретами. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
1. Полностью не согласен

2. Не согласен
3. Отчасти согласен, отчасти нет
4. Согласен
5. Полностью согласен

35. Я намерен приобрести электронные сигареты в ближайшем будущем. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
6. Полностью не согласен
7. Не согласен
8. Отчасти согласен, отчасти нет
9. Согласен
10. Полностью согласен

36. Я считаю, что в будущем мой интерес к электронным сигаретам возрастет. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
11. Полностью не согласен
12. Не согласен
13. Отчасти согласен, отчасти нет
14. Согласен
15. Полностью согласен

37. Я намерен покупать электронные сигареты как можно чаще. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
16. Полностью не согласен
17. Не согласен
18. Отчасти согласен, отчасти нет
19. Согласен
20. Полностью согласен

38. Я бы рекомендовал другим курильщикам покупать электронные сигареты. Пожалуйста, оцените свой ответ на следующие вопросы по 5-балльной шкале, отметив степень своего согласия с каждым утверждением: Полностью не согласен; Не согласен; Отчасти согласен, отчасти нет; Согласен; Полностью согласен.
21. Полностью не согласен
22. Не согласен
23. Отчасти согласен, отчасти нет
24. Согласен
25. Полностью согласен

40. Пожалуйста, укажите свой пол.
4. Женщина
5. Мужчина
6. Предпочитаю не указывать
41. Пожалуйста, укажите свой возраст.
2. Ваш ответ….

42. Пожалуйста, выберите уровень образования, который вы имеете в настоящее время.
Базовое образование
Общее образование
Техническое профессиональное образование
Среднее профессиональное образование
Высшее образование
43. Пожалуйста, отметьте ваш средний месячный доход.
6. <200 USD
7. 200-500 USD
8. 500-1000 USD
9. >1000 USD
Мы благодарим вас за участие в опросе для этой исследовательской работы. Мы надеемся сотрудничать с вами и в будущих исследовательских проектах!

Appendix 3

Habit strength				
Label	**Survey Item English Translation**	**Survey Item Russian Translation**	**Coding**	**Source**
HS-1		Я курю	Yes/No	-
HS-2	Smoking of traditional cigarettes is something I am frequently doing.	Курение традиционных сигарет - это то, что я часто делаю	5-Point Likert Scale	Verplanken & orbell 2003
HS-3	Smoking of traditional cigarettes is something I do without thinking.	Курение традиционных сигарет - это то, что я делаю, не задумываясь.	5-Point Likert Scale	Verplanken & Orbell 2003
HS-4	Smoking of traditional cigarettes is something I have been doing for a long time.	Курение традиционных сигарет - это то, чем я занимаюсь уже долгое время.	5-Point Likert Scale	Verplanken & Orbell 2003
Personal Innovativeness				
IP-1	I often buy	Я часто покупаю	5-Point	Karaarslan (2015)

	innovative products that challenge the strengths and weaknesses of my intellectual skills.	инновационные продукты, которые бросают вызов сильным и слабым сторонам моих интеллектуальных способностей.	Likert Scale	
IP-2	I often buy new products that make me think logically.	Я часто покупаю новые продукты, которые призывают меня мыслить логически	5-Point Likert Scale	Karaarslan (2015)
IP-3	I find innovations that need a lot of thinking intellectually challenging and therefore I buy them instantly.	Я считаю новинки, требующие долгих размышлений, интеллектуально сложными и поэтому покупаю их не задумываясь.	5-Point Likert Scale	Karaarslan (2015)
IP-4	I mostly buy those innovations that satisfy my analytical mind.	В основном я покупаю те новинки, которые удовлетворяют мой аналитический ум.	5-Point Likert Scale	Karaarslan (2015)
IP-5	If a new time saving product is launched, I will buy it right away.	Если появляется новый продукт, экономящий мое время, я сразу же покупаю его.	5-Point Likert Scale	Karaarslan (2015)
IP-6	Innovations make my life exciting and stimulating.	Инновации делают мою жизнь захватывающей и стимулирующей.	5-Point Likert Scale	Karaarslan (2015)
IP-7	The discovery of novelties makes me playful and cheerful.	Открытие новинок делает меня игривым и жизнерадостным.	5-Point Likert Scale	Karaarslan (2015)
IP-8	It gives me a good	Мне приятно	5-Point	Karaarslan (2015)

	feeling to acquire new products.	приобретать новые продукты.	Likert Scale	
IP-9	Using novelties gives me a sense of personal enjoyment.	Использование новых продуктов дает мне чувство личного удовлетворения.	5-Point Likert Scale	Karaarslan (2015)
IP-10	I like to own a new product that distinguishes me from others who do not own this new product.	Мне нравится владеть новым продуктом, потому как он отличает меня от тех, кто не владеет этим новым продуктом.	5-Point Likert Scale	Karaarslan (2015)
Health consciousness				
HC-1	I reflect about myself a lot.	Я много думаю о своем здоровье.	5-Point Likert Scale	Hu (2013)
HC-2	I am very self-conscious about my health.	Я пристально слежу за своим здоровьем.	5-Point Likert Scale	Hu (2013)
HC-3	I am constantly examining my health.	Я часто проверяю состояние своего здоровья.	5-Point Likert Scale	Hu (2013)
HC-4	I am very involved with my health.	Я очень внимательно отношусь к своему здоровью.	5-Point Likert Scale	Hu (2013)
HC-5	I am aware of the state of my health as I go through the day.	Я слежу за состоянием своего здоровья в течение дня.	5-Point Likert Scale	Hu (2013)
Observability				
OB-1	I can observe e-cigarettes being used by others.	Я нередко наблюдаю, как другие используют электронные сигареты.	5-Point Likert Scale	Flight et al. (2011)

OB-2	If I adopted e-cigarettes, others could see me using it.	Если бы я начал(а) использовать электронные сигареты , другие могли бы также это наблюдать.	5-Point Likert Scale	Flight et al. (2011)
OB-3	It would be common to see e-cigarettes in use by others.	Обычно электронные сигареты используются другими людьми.	5-Point Likert Scale	Flight et al. (2011)
Compatibility-Personal				
CP-1	E-cigarettes compliments with product currently use (traditional cigarettes)	Электронные сигареты дополняют используемые в настоящее время традиционные сигареты.	5-Point Likert Scale	Flight et al. (2011)
CP-2	E-cigarettes are keep the potential a self-image good.	Электронные сигареты поддерживают само восприятие.	5-Point Likert Scale	Flight et al. (2011)
CP-3	E-cigarettes will fit my lifestyle.	Электронные сигареты соответствуют моему образу жизни.	5-Point Likert Scale	Flight et al. (2011)
Compatibility-Social				
CS-1	Using e-cigarettes are socially acceptable.	Использование электронных сигарет является социально приемлемым.	5-Point Likert Scale	Flight et al. (2011)
CS-2	Adopting use of e-cigarettes will be approved by my friends and family.	Использования электронных сигарет будет одобрено моими друзьями и семьей.	5-Point Likert Scale	Flight et al. (2011)
CS-3	Using e-cigarettes would be appropriate	Использование электронных сигарет является целесообразным.	5-Point Likert Scale	Flight et al. (2011)

CS-4	Many of my friends would like to use e-cigarettes.	Многие из моих друзей хотели бы использовать электронные сигареты.	5-Point Likert Scale	Flight et al. (2011)
Relative advantage by attribute				
RAA-1	E-cigarettes are more comfortable to use than traditional cigarettes.	Электронные сигареты более удобны в использовании, чем традиционные сигареты.	5-Point Likert Scale	Flight et al. (2011)
RAA-2	E-cigarettes are available in more locations than traditional cigarettes.	Электронные сигареты доступны в большем количестве мест, чем традиционные сигареты.	5-Point Likert Scale	Flight et al. (2011)
RAA-3	E-cigarettes are more reliable than traditional cigarettes.	Электронные сигареты более надежны, чем традиционные сигареты.	5-Point Likert Scale	Flight et al. (2011)
Relative economical advantage				
REA-1	I need to buy e-cigarettes less often than traditional cigarettes.	Мне нужно покупать электронные сигареты реже, чем традиционные сигареты.	5-Point Likert Scale	Flight et al. (2011)
REA-2	E-cigarettes allows me to reduce costs price.	Электронные сигареты позволяют мне снизить затраты.	5-Point Likert Scale	Flight et al. (2011)
REA-3	E-cigarettes has favorable price/quality relations in comparison with traditional cigarettes.	Электронные сигареты имеют благоприятное соотношение цена/качество по сравнению с традиционными сигаретами.	5-Point Likert Scale	Flight et al. (2011)
Intention to adopt				

ID-1	I intend to buy e-cigarettes in the near future.	Я намерен приобрести электронные сигареты в ближайшем будущем.	5-Point Likert Scale	Saprikis et al. (2017)
ID-2	I believe my interest towards e-cigarettes will increase in the future.	Я считаю, что в будущем мой интерес к электронным сигаретам возрастет.	5-Point Likert Scale	Saprikis et al. (2017)
ID-3	I intend to buy e-cigarettes as much as possible.	Я намерен покупать электронные сигареты как можно чаще.	5-Point Likert Scale	Saprikis et al. (2017)
ID-4	I would recommend other smokers to buy e-cigarettes.	Я бы рекомендовал другим курильщикам покупать электронные сигареты.	5-Point Likert Scale	Saprikis et al. (2017)