

HEDONIC CONSUMPTION GOALS AND PREFERENCE FOR FLAT-RATE TARIFF

Case Relaxation Area at Helsinki-Vantaa Airport

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Silja Reponen
Aalto University School of Business
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Author Silja Reponen

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Abstract

Consumer behavior has been widely researched by different disciplines in order to identify and examine preferences and motivational goals of the consumers. In addition to cognitive reasoning, emotions affect consumer's decision making process. This study attempts to research the interdependency between consumption goals and emotions of the consumers, more specifically the interconnection between hedonic consumption goals and preference for flat-rate tariff, a fixed price for the service usage without time limitations. The interconnection is researched by examining results of Relaxation Area survey, which was conducted at Helsinki-Vantaa Airport between September 2013 and March 2014. Relaxation Area was a pilot project initiated by Vantaa Innovation Institute, and the purpose of the survey was to research the impressions, emotions and willingness to pay of the consumers for the new service concept. In this study, tariff-choice preferences and willingness to pay (WTP) of the survey respondents are examined as well as the emotions of the respondents are researched with a target to find evidence for the interconnection between hedonic consumption goals and a prevailing preference for flat-rate tariff.

The methods used in this study are latent-class cluster analysis (LCA) and conjoint analysis. Latent-class cluster analysis (LCA) is used for segmenting the survey respondents based on their tariff-choice preferences and conjoint analysis methods are utilized for identifying and examining tariff-choice preferences of the segments as well as scrutinizing the choice probabilities of the individual respondents for flat-rate vs. pay-per-use tariff.

The results show that the proportion respondents agreeing or disagreeing with hedonic emotions among those preferring the flat-rate is greater than among the respondents favoring the pay-per-use tariff. The findings are consistent both for the clusters identified by LCA and for the individuals with equal or greater choice probability than pre-defined threshold for the probability of selecting certain tariff. Furthermore, the results of the study evidence that willingness to pay of the consumers with high probability for selecting a single price for the whole Relaxation Area i.e. flat-rate, is greater than the WTP of consumers with high probability for choosing pay-per-use tariff, a usage-based price for a relaxation furniture.

Keywords consumption goal, tariff-choice, emotions, willingness to pay, WTP

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Tiivistelmä

Kuluttajien käyttäytymistä on tutkittu eri tieteenalojen toimesta, jotta kuluttajien mieltymyksistä ja kulutuspäätökseen vaikuttavista motiiveista ja tavoitteista saataisiin selvyys. Aiempien tutkimusten perusteella tiedetään, että kognitiivisten perusteiden lisäksi kuluttajan kokemat tuntemukset vaikuttavat ostopäätökseen. Tämän tutkimuksen tavoitteena on tarkastella kulutusmotiivien ja -tavoitteiden sekä palvelukokemukseen liittyvien tunnetilojen yhteyttä siihen, valitseeko asiakas todennäköisemmin kiinteän hinnan, jolla palvelua voi käyttää rajattomasti (nk. ”pakettihinta”) vai aika- ja käyttösidonnaisen hinnoittelun. Tutkimuksen empiirisessä keskiössä on Helsinki-Vantaan lentoasemalla syyskuun 2013 ja maaliskuun 2014 välisenä aikana järjestetty kuluttajatutkimus, jonka tavoitteena oli tutkia lentoasemalle väliaikaisesti pystytetyn lepoalueen kävijöiden vaikutelmia ja tuntemuksia uudenlaisesta palvelukonseptista sekä selvittää kävijöiden halukkuutta maksaa lepoalueesta, jossa heillä on mahdollisuus levätä, rauhoittua tai vaikka nukkua keskellä hektistä lentoasemamiljöötä. Tässä tutkimuksessa tarkastellaan erityisesti hedonististen kulutusmotiivien ja tuntemusten sekä ”kiinteän hinnan välistä yhteyttä, ja tutkitaan, onko ”pakettihintaa” suosivilla kuluttajilla enemmän hedonistisia tuntemuksia kuin aika- ja käyttösidonnaista hinnoittelua suosivilla kuluttajilla.

Tutkimuksessa käytetyt menetelmät ovat klusterianalyysi ja conjoint-analyysi. Klusterianalyysiä käytetään kyselytutkimuksen vastaajien segmentointiin heidän suosiman hinnoitteluvaihtoehdon perusteella. Conjoint-analyysiä käytetään puolestaan segmenttien sekä yksittäisten vastaajien hinnoittelumieltymysten ja valintatodennäköisyyksien tunnistamiseen ja tarkasteluun. Tämän lisäksi tutkimuksessa testataan kuluttajatutkimuksen tuloksia ja tutkitaan mm. vastaajien hinnoittelumieltymysten ja tunteiden yhdistelmien esiintyvyyttä vastaajien keskuudessa.

Tutkimuksen tulokset osoittavat, että ”pakettihinnan” valintatodennäköisyyden ja vastaajan hedonististen tuntemusten välillä on yhteys, sillä ”pakettihintaa” suosivien osuus voimakkaita hedonistia tunteita omaavien vastaajien joukossa on suurempi kuin aika- ja käyttösidonnaista hintaa suosivilla. Tulokset ovat yhtenäisiä sekä segmenttikohtaisesti tarkasteltuna että tutkimalla yksittäisten vastaajien valintatodennäköisyyksiä ja vastauksia kyselytutkimuksen tunneosioon. Tutkimus osoittaa lisäksi, että kiinteään hintaan mieltyneiden henkilöiden maksuhalukkuus on suurempi kuin aika- ja käyttöperusteisen hinnan todennäköisemmin valitsevilla henkilöillä.

Avainsanat kulutustavoite, hinnoittelu, mieltymys, tuntemus, maksuhalukkuus

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1 Introduction

In the first section of the thesis, landscape of the research field, motivation for the research and research questions are introduced and structure of the thesis is presented.

1.1 Background

Consumer behavior has been researched under different disciplines, such as psychology, sociology and economics, and a better understanding on the dimensions of consumers' goals for consumption is continuously pursued. Segmentation and even individualization is increasingly applied in the service economy with the target to identify heterogeneous preferences of the consumers for differentiating service offerings (Wertenbroch & Skiera, 2002), maximizing value to the most profitable and loyal customers, and at the same time optimize the efforts towards less profitable customers, which are prone to changes in their level of consumption and loyalty (Kumar, 2008).

New service development (NSD) has not been studied widely although earlier research has discussed the importance of customer involvement during the NSD process (Melton & Hartline, 2010; Meiren & Burger, 2010; Alam & Perry, 2002). Based on earlier studies (Alam & Perry, 2002; Vainio, 2015), new service development process consists of four main stages: 1) idea generation, 2) analysis, 3) process and service design and 4) testing. Based on earlier research (Scheuing & Johnson, 1989; Meiren & Burger, 2010), pricing and emotions are among the most important areas of service testing. Research on pricing as part of new service testing includes assessing the different pricing schemes and studying potential customers' willingness to pay for the new service. Emotions of the customers is another important research focus during new service testing. According to Meiren and Burger (2010), one of the main advantages of testing and prototyping a service is the possibility to analyse and assess the emotional experience of the prospective customers.

Batra and Ahtola (1991) state that consumers have two basic reasons for purchasing and consuming products and services: 1) affective hedonic gratification, and 2) instrumental, utilitarian achievement. (Voss et al., 2003; Uhrich et al., 2012). Batra and Ahtola (1991) also point out that hedonic and utilitarian reasons for consumption behavior are not always mutually exclusive, which means that an individual usually has both hedonic and utilitarian intentions when he or she is considering to purchase a product or consume a service. Uhrich et al. (2012) have researched the interconnection between

consumption goals and tariff-choice preferences by conducting several experiments. The results of their studies indicate that individuals favoring the flat-rate tariff, a stable price for which a buyer can generally access a service offering without time limitations, are more strongly associated with hedonic rather than utilitarian consumption goals.

Lambrecht & Skiera (2006) have studied flat-rate bias, a tendency for consumers to select flat-rate tariff even though another tariff-choice would be more affordable.

Interconnection between tariff-choice preferences and consumption goals is studied in the case of a Relaxation Area, which was open free of charge at Helsinki-Vantaa Airport between September 2013 and March 2014. Relaxation Area was open 24 hours a day and offered visitors a peaceful and harmonic area with several options for relaxing, resting or sleeping. The Relaxation Area was a pilot project by Vantaa Innovation Institute's Airport Concepts -project, which was funded by European Regional Development Fund (Vantaa Innovation Institute, 2014). The design of the area was implemented by six Finnish small and medium-sized (SME) companies and a survey was conducted for researching the overall experience of the visitors and gather their impressions of the new service concept. As part of the survey, respondents' willingness to pay for the service as well as emotions at the point of the service experience were researched.

Tariff-choice preferences, willingness to pay and emotions of the survey respondents are researched with a target to find evidence for the interconnection between hedonic consumption goals and a preference for flat-rate tariff. Flat-rate bias studied by Lambrecht & Skiera (2006) is adjusted for this study because the original definition requires an examination of the total price for the tariff-choices which is not applicable for this study. In Relaxation Area -survey, respondents were provided with an assumption that they have 1 hour 45 minutes before flight's take-off. However, respondents were not expected to state their own intended usage-time for the tariff-choice options while considering whether they prefer flat-rate or pay-per-use tariff. Consequently, 'flat-rate preference' is assumed to be existing in case a respondent prefers paying one price for an entrance to the whole Relaxation Area even though relaxation on a sleeping furniture for the whole time before flight's take-off would not be more affordable than flat-rate tariff. Similarly, 'pay-per-use preference' is assumed to be prevailing in case of a respondent favors usage-based pricing of a sleeping furniture over a fix-priced entrance to Relaxation Area, regardless of the respondent's own intended time allocation for the service.

1.2 Motivation

Motivation for the research area derives from the identified relationship between nature of consumption goal and preference for a certain tariff. Uhrich et al. (2012) state that individuals with hedonic consumption goals tend to prefer flat-rate, described as ‘one price for the whole service’, over a use- or time-based pay-per-use tariff. In the current competitive service economy with increasingly demanding consumers, services need to be designed carefully in order to correspond to needs and wants of the customers with heterogeneous preferences. Consequently, researching the preferences of the consumers is nowadays a prerequisite for all companies. Service providers could benefit from the research, because they would have better knowledge on how to develop the service concept and whether to carry out price differentiation with regards to customer segments or other relevant factors.

1.3 Research questions and objectives

The objective of this study is to research and analyse the following research questions:

- 1) How does flat-rate preference and/or pay-per-use preference exist among the respondents of Relaxation Area -survey?
- 2) Are the hedonic emotions of Relaxation Area -survey respondents reflecting their motivational goals for consumption and ultimately correlating with flat-rate tariff-choice? More specifically, are the respondents with a flat-rate preference happier, more excited or more satisfied than the respondents favouring pay-per-use tariff?
- 3) What is the relationship of consumer’s tariff-choice preference with willingness to pay (WTP) for the service?

1.4 Structure of the thesis

In section 2, theoretical framework of the thesis is introduced by explaining the key terminologies in the research area and relevant theories as well as earlier research findings. In section 3, methodologies utilized in this study are introduced and a brief overview to each of the methods is provided. In section 4, overview and structure of the Relaxation Area survey is presented and demographics of the survey respondents are summarized. Section 5 of the thesis begins with defining clustering method and explaining the morale for the selection of cluster solution for the quantitative part of the study. After that description and demographics of the clusters are presented and examination on the tariff-choice preferences

as well as emotions of the clusters is conducted. Section 5 ends with re-testing the findings of emotional research by dividing the respondent base into separate sample groups based on high choice probability for selecting certain tariff for Relaxation Area. In section 6, research results are discussed, reliability and validity of the study is addressed and the section ends with bringing up the limitations of the study. In the last section of this thesis, conclusions of the research, managerial implications and suggestions for further research are presented.

2 Literature review

Ridley (2008) describes literature review as an extensive reference to related research and theory on the field, which is a continuing process for researching, identifying and connecting existing literature and theories to the research in question and positioning the thesis in the field. In this section, existing literature and theories in the research field are presented and discussed.

2.1 Alternative tariffs and consumer's willingness-to-pay

Services are generally priced so that there are different tariffs for consumers to choose from (Schlereth et al, 2001). A flat-rate tariff is a stable price for which a buyer can generally access a service offering without time limitations, whereas a pay-per-use tariff is dependent on the allocated time or repeat purchase of the service (Uhrich et al., 2012). For instance, a flat-rate tariff for an amusement park is an entrance ticket including unlimited access to the gadgets and a pay-per-use tariff is referring to a price for a single ride in one of the gadgets in the park. Wertenbroch & Skiera (2002) point out that economists, psychologists and marketing researchers generally base their demand estimations for products and their optimal prices on the measurement of consumers' willingness to pay (WTP). Willingness-to-pay (i.e. reservation price) is characterized as the maximum amount of money a person is willing to pay for a given quantity of a product (Voelckner, 2006; Wertenbroch & Skiera, 2002; Grunert et al., 2009). Jedidi & Zhang (2002) define reservation price as the price at which a consumer is indifferent between buying and not buying the product, given that the consumption alternatives are available to the consumer.

Based on the nature of the method for measuring willingness to pay, Voelckner (2006) and Miller et al. (2011) have categorized willingness-to-pay into two types: hypothetical and real willingness-to-pay (WTP). Hypothetical WTP is tied to an experiment or study in which the willingness to pay of the sample is researched in a hypothetical context, in contrast to the study of real WTP in which the sample is expected to purchase the product or service similarly as in real-life purchase occasion (Voelckner, 2006). Based on previous research (Voelckner, 2006; Miller et al., 2011), it is evident that hypothetical WTP is stated to be substantially higher than real WTP. This phenomenon is explained by hypothetical bias, which originates from the uncommitment to purchase decision in case of hypothetical task (Miller et al., 2011). However, WTP is a situation-specific, individual level conduct, which makes it a difficult for the marketers to achieve the most profitable pricing decision for a

new product or service (Voelckner, 2006). In the next section, the different methods for measuring WTP are discussed.

2.2 Methods for researching willingness to pay

WTP is generally researched by marketers either from revealed preferences (e.g. scanner data) or from survey data, which is a method to observe consumers' stated preferences (Wertenbroch & Skiera, 2002). Voelckner (2006) discusses several methods for measuring willingness-to-pay and states that the existing methods differ from each other with respect to the economic commitment from the respondents. Methods for measuring real WTP elicits the purchase behaviour of respondents in a real purchase occasion, whereas studies measuring hypothetical WTP are examining the purchase behaviour in a hypothetical context, which may result in overestimating the hypothetical WTP compared to the economically committed real WTP (Voelckner, 2006). The most popular methods for measuring hypothetical WTP are contingent valuation and conjoint analysis, and typical examples for examining consumer's real WTP are auctions, lotteries and revealed preference data, i.e. scanner panel data or simulated test market data (Voelckner, 2006).

Green et al. (2001) characterize conjoint analysis as "by far, the most used marketing research tool for analyzing consumer tradeoffs." It simulates a real-life buying occasion by requesting respondents to choose between a randomly pre-determined set of product profiles with alternating combinations of attribute levels. Each product or service profile is defined as a set of attributes and their levels, and each profile is evaluated by the respondent with respect to the other possible alternative profiles (Green & Srinivasan, 1978; Grunert et al, 2009). Earlier research (Olson, 1977; Green & Srinivasan, 1978; Alan, 2001; Halme & Somervuori, 2013) has applied the additive utility model in various studies. Through conjoint analysis, consumers' preferences are researched as well as trade-offs within the different product or service attribute combinations are identified.

Contingent valuation is an approach, in which respondents are asked to directly state their WTP towards a specific product or service (Voelckner, 2006). Wertenbroch & Skiera (2002) discuss that contingent valuation can be either open-ended or closed-ended. In open-ended contingent valuation, the respondent is asked to state his or her WTP for a good or for a change in attribute level directly whereas in closed-ended method the respondent is provided with a good at certain price and he or she is asked to state whether he or she would buy the product with the given price (Wertenbroch & Skiera, 2002).

Hypothetical methods for measuring willingness to pay have been criticized as the choices of the sample do not simulate a real purchase behaviour and a lack of commitment to the purchase decision is prone to lead respondents to overestimate their WTP (Grunert et al., 2009). Conjoint analysis has been negatively judged also because of the procedure of systematically comparing the pre-determined attribute levels in different product profiles, which may not reflect the real decision-making of the consumers, who might attach some other attributes and their levels to their purchase decision (Grunert et al., 2009). On the contrary, Sweeney et al. (1992) state that a significant advantage of conjoint analysis is that preferences are indicated by responding to questions related to complete profiles instead of stating the importance of individual attributes of a product or service. Therefore, decision making is more realistic compared to presenting a list of attributes and requesting respondents to rank them independently (Sweeney et al., 1992).

2.3 Tariff-choice preferences

Generally, customers are assumed to be seeking a price which is economically most affordable and consequently minimizes their spending while maximizing the value of the product or service. However, earlier research (Lambrecht & Skiera, 2006; Uhrich et al., 2013) has evidenced that majority of consumers tend to choose a tariff based on other factors than the economical wealth. A tendency for customers to choose a flat-rate even though another tariff would be more affordable for them, is called flat-rate bias (Train et al., 1987; Lambrecht & Skiera, 2006; Uhrich et al., 2012). Psychologically, flat-rate tariff is a tempting option for customers because of the stability of the price level and the flexible accessibility to the service in question. Nunes (2000) illustrates the preference for flat-rate with a concrete example from health club industry: *“In a sample of 79 regular health club users, an average flat-rate (f) of \$610,00 is paid for a subscription year. Pay-per-use tariff (p) (one-time guest) of a visit was \$10,00. In this case study, the actual observed quantity of the service usage (q) turned out to be 38 times within a year. Therefore, the pay-per-use tariff of the subscription year would have been \$380,00 in total (p*q). However, the average health club user paid per flat-rate tariff and each of the visits to health club ended up costing \$16,05 instead of the standard pay-per-use tariff.”* Consequently, the selection of flat-rate tariff resulted in 60% overpaying. (Nunes, 2000; Oz Shy, 2008). A tendency of a consumer to opt for pay-per-use tariff even though flat-rate would be economically better alternative, is described as pay-per-use bias (Lambrecht & Skiera, 2006; Uhrich et al., 2012; Krämer & Wiewiorra, 2012). Lambrecht & Skiera (2006) have researched pay-per-use bias and found

out that it is more rare than flat-rate bias. Nevertheless, some customers tend to prefer a time- or usage-based pay-per-use tariff regardless of the higher long-term price.

Lambrecht & Skiera (2006) have identified three effects which are causing the flat-rate bias and one major effect which is recognized to have a direct impact on the pay-per-use bias. Taximeter, insurance and overestimation effects have been recognized to have an influence on the existence of flat-rate bias (Lambrecht & Skiera, 2006; Uhrich et al., 2012) and underestimation effect is a direct cause for pay-per-use bias (Lambrecht & Skiera, 2006). In addition, an effect called flexibility effect has been identified by Krämer and Wiewiorra (2012). Taximeter effect means that a customer dislikes the feeling of being charged for every single minute or hour of the service usage and therefore the possibility for that customer to choose a more stable and pre-charged flat-rate tariff is increased. Insurance effect exists when a customer is not conscious about the future usage patterns for the service. As an insurance for avoiding possible extra bills for additional usage, this type of customer favors a constant and safe flat-rate tariff instead of taking the risk of choosing the pay-per-use option. A customer impacted on the overestimation effect tend to overestimate the need for the service and for that reason is more likely to pick the flat-rate tariff. Although the pay-per-use bias is much more rare than flat-rate bias, two effects have been noticed to affect the likelihood of opting for the pay-per-use tariff. First, underestimation effect means that a customer underestimates the need for the service and it leads him or her to choose the pay-per-use tariff. This effect is the opposite of overestimation effect. Second, flexibility effect can make a customer to choose the pay-per-use tariff because of the perceived flexibility attached to a tariff which allows variance in the usage pattern compared to flat-rate tariff, which is charged every time regardless of how much the service is used.

2.4 Consumption goals and emotions in consumer behaviour

In the consumer behaviour literature, different perspectives of consumer decision making have been discussed (e.g. Hansen, 2005; Bagozzi et al., 1999). Hansen (2005) has researched the four perspectives of consumers' purchase behaviour: value perspective, information processing perspective, emotional perspective and cue utilization perspective. Value perspective is traditionally described as a trade-off between a price that customer needs to pay for a certain product or service and the value or utility of the product or service for the customer. Zeithaml (1988) regards that perceived value of a product or service comprises of an overall assessment of the utility of the product or service. A consumer with information processing perspective is perceived as an involved, problem-solving and cognitive

individual targeting at a wise and reasonable purchase decision (Holbrook & Hirschman, 1982; Hansen, 2005). On the contrary, a consumer with emotional perspective assesses alternatives merely on sensational and emotional perception and impression (Hansen, 2005). Cue utilization perspective means that a consumer relies on a set of cues or stimuli when assessing the quality of the product or service.

Hansen (2005) conceptualizes perspectives of consumer behaviour and positive vs. negative relationships between the different aspects of purchase decision (Figure 1). Hansen's (2005) framework implies that emotions have a positive relationship with buying intentions both directly and through attitudes, which also have positive relationship with purchase behaviour of the consumers.

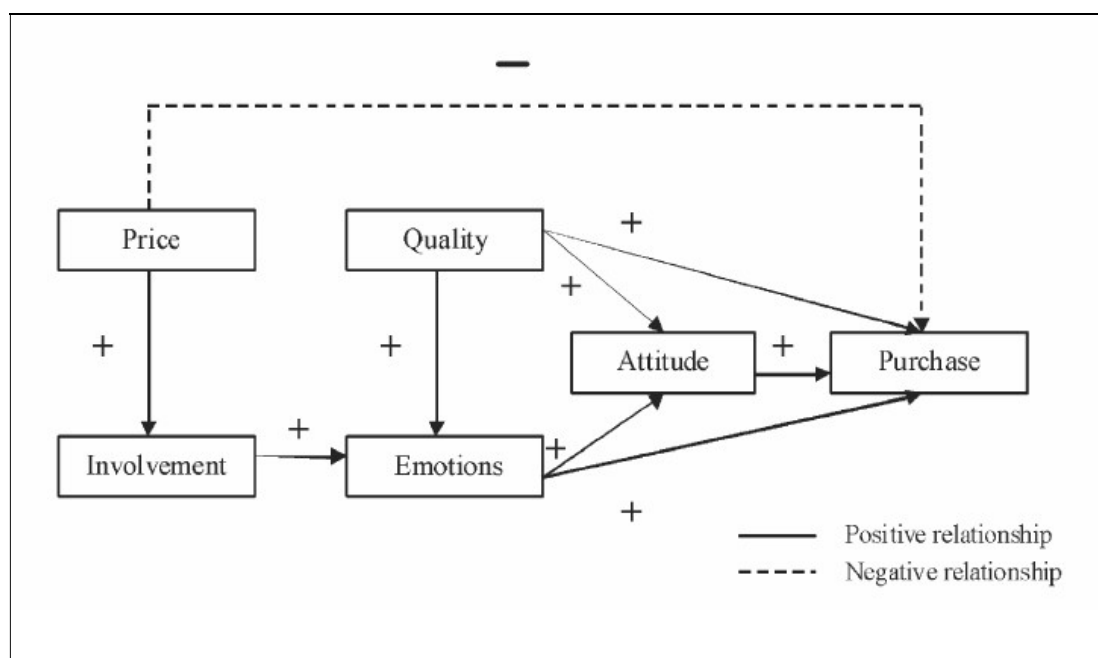


Figure 1. The conceptual framework (Hansen, 2005)

Based on Hansen's (2005) conceptual framework, consumers with high involvement are expected to experience stronger affective responses, such as feelings and emotions. Furthermore, consumers are more likely to be involved in purchase decisions, when purchase involvement is based on positive rather than negative motivational goals.

Batra and Ahtola (1991) state that consumers have two basic reasons for purchasing and consuming products and services: 1) affective hedonic gratification, and 2) instrumental, utilitarian achievement (Voss et al., 2003; Uhrich et al., 2012). Consumers with hedonic

consumption goals are purchasing products or consuming services with a target to achieve individual enjoyment and pleasure, whereas consumers with utilitarian consumption goals are considered to aim at fulfilling functional and practical needs (Batra & Ahtola, 1991; Uhrich et al., 2012; Chitturi et al., 2008; Dhar & Wertenbroch, 2000). In addition to hedonic and utilitarian consumption goals, more recent researchers (Lindenberg, 2001; Lindenberg & Steg, 2007; Barbopoulos & Johansson, 2016) have identified normative goal, which implies the appropriateness of the consumption behavior. Lindenberg & Steg (2007) discuss that multiple goals are active at the same time, one of the goals being in the focus and other goals considered as sub-goals, which are influencing the primary goal for consumption.

Several researchers (Zajonc & Markus, 1982; Holbrook & Hirschman, 1982; Holbrook & Batra, 1987; Shiv & Fedorikhin, 1999; Hansen, 2005) have characterized consumer's decision making as an interplay between cognition and emotions. Consequently, it is evident that consumer's cognition and affection are influenced by each other in consumer's decision making process. The role of emotions in purchase behaviour have been researched extensively. Various researchers (e.g. Kotler, 1974; Young & Feigin, 1975; Holbrook & Hirschman, 1982; Zajonc & Markus, 1982; Holbrook & Batra, 1987; Westbrook, 1987; Babin & Darden, 1996; Richins, 1997; Elliott, 1998; Hansen, 2005; Griskevicius et al., 2010) have evidenced that emotions have a prominent role in decision making and emotional processes are attached to every purchase decision.

Bagozzi et al. (1999) discuss that marketers are generally measuring emotions with unipolar or bipolar questionnaires in which the respondents are selecting the appropriate value in the emotional scale. Thereafter, methods such as factor analysis, multidimensional scaling or cluster analysis are utilized for identifying underlying emotions of the sample (Bagozzi et al., 1999). Watson & Tellegen (1985) have developed a model called "The two-dimensional structure of affect" which consists of four bipolar dimensions of affects or emotions: Pleasantness (happy vs. sad), Positive affect (excited vs. sluggish), Engagement (aroused vs. still) and Negative affect (distressed vs. relaxed). Watson & Tellegen's model is shown in Figure 2.

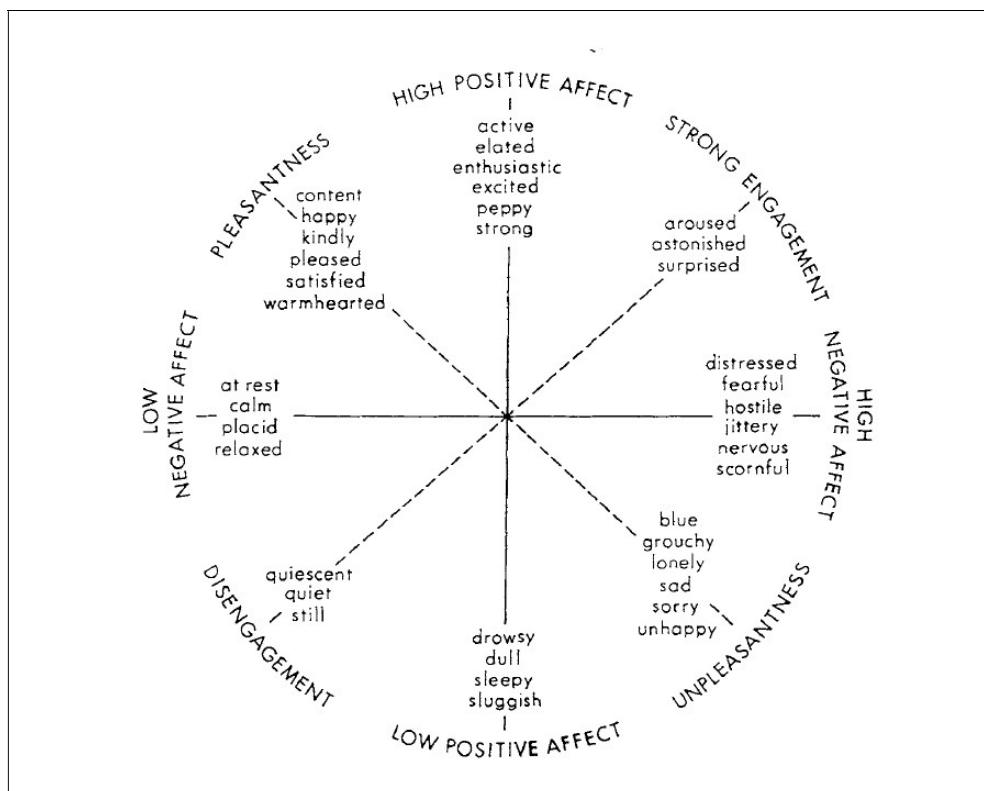


Figure 2. The two-dimensional structure of affect (Watson & Tellegen, 1985)

Based on their research on hedonic and utilitarian dimensions of consumer decision making, Batra & Ahtola (1991) defined a scale of hedonic/utilitarian emotions. Voss et al. (2003) have also defined a scale for identifying hedonic and utilitarian emotions or affects. In accordance with the HED-UT scales of Batra & Ahtola (1991) and Voss et al. (2003), adjectives characterizing hedonism are for instance enjoyable-unenjoyable, pleasant-unpleasant, exciting-dull, happy-sad and soothing-aggravating. Examples of utilitarian adjectives are effective-ineffective, necessary-unnecessary, wise-foolish and helpful-unhelpful (Batra & Ahtola, 1991; Voss et al., 2003).

Earlier research (e.g. Maslow, 1968; Okada, 2005) has evidenced that consumer's motivational goals for consumption have an impact on the choice of a product and the evaluation of alternatives. Uhrich et al. (2012) have studied the interdependency between hedonic consumption goals and a tendency for selecting flat-rate tariff, and evidenced by several experiments that consumers with hedonic consumption goals most probably opt for a stable and fixed flat-rate tariff rather than a pay-per-use tariff which is time- or usage-based price, in which the total price depends on the actual usage of the service. Hedonic consumption goals of the consumers are not easily recognized because a consumer may have

both hedonic and utilitarian targets for his or her purchase decision (Batra & Ahtola, 1991; Voss. et al., 2003; Lindenberg & Steg, 2007). However, consumer's emotions at the point of service encounter are considered to exhibit the underlying consumption goals of the respondents. Consumption of hedonic services is recognized to be more emotional than consumption of utilitarian services, because hedonic services are experience-centric with all the fun and enjoyment experienced at the point of service encounter (Holbrook & Hirschman, 1982; Batra & Ahtola, 1991; Zomerdijk & Voss, 2009). On the contrary, consumers who are purchasing products or services for utilitarian benefits experience the functional value after the consumption (Khan et al., 2004).

2.5 Theoretical framework

Theoretical framework of this study comprises of three research areas which are interconnected to each other. The main research area is the interdependency between hedonic consumption goals and a preference for flat-rate tariff which has been researched and demonstrated by Uhrich et al. (2012). Furthermore, hedonic emotions of the consumers are tightly attached with motivational goals of the consumers as emotions have been evidenced to have an impact on the purchase behaviour of the consumers (e.g. Kotler, 1974; Holbrook & Hirschman, 1982; Zajonc & Markus, 1982; Holbrook & Batra, 1987; Elliott, 1998; Hansen, 2005). Therefore, emotional research is the second focus area in this study with a specific emphasis on hedonic vs. utilitarian characterization of the emotions (Batra & Ahtola, 1991; Voss et al., 2003). Third research area in this study is willingness to pay (WTP), the maximum amount of money a person is willing to pay for a product or service (Voelckner, 2006; Wertenbroch & Skiera, 2002; Grunert et al., 2009). Willingness to pay for a product or service is among other things affected by tariff-choice preference, emotions as well as consumption goals of the current and prospective customers. Consequently, tariff-choice preferences, consumption goals, hedonic emotions and willingness to pay jointly form a comprehensive theoretical framework for this study.

3 Methodologies

Conjoint analysis and latent-class cluster analysis (LCA) are selected methodologies for the empirical part of this study. More specifically, latent-class cluster analysis is conducted for segmenting Relaxation Area -survey respondents and conjoint analysis is used for identifying and analyzing tariff-choice preferences of the survey respondents. In the following sub-sections, both methodologies are briefly elaborated.

3.1 Conjoint analysis

Attributes and their values called levels are building blocks in conjoint analysis. Conjoint analysis is widely-used method for determining how consumers value different attribute levels, from the partial utility of which the total utility of a product or service is comprised of. The objective of conjoint analysis is to measure those partial utilities of different attribute levels and the importance of attributes, often on the segment or individual level.

In conjoint analysis, the total utility U is the sum of total value V and a random error ε . Therefore, total utility is: $U = V + \varepsilon$. The total value V is generally considered as an additive function of the attributes of a product or service (e.g. Green & Srinivasan, 1978). If there are n attributes with levels a_1, a_2, \dots, a_n , the total utility U is:

$$U = u_1(a_1) + \dots + u_n(a_n) + \varepsilon \quad (1)$$

where u_i is a partial utility function of an individual attribute i , ($i = 1, 2, \dots, n$), and the values of $u_i(a_i)$ are partial utilities or part-worths of the attribute levels.

In choice-based conjoint analysis, the preferences of the consumers are examined in such a way that a respondent is encountered with several choice tasks in which the alternative product profiles consist of different sets of attribute levels among which the respondent selects the best option. Because of the simultaneous evaluation of alternative product profiles with independent valuation errors, multinomial logit choice model (McFadden, 1974) is used in CBC analysis. Based on the model, comparing k product profiles with total values V_1, V_2, \dots, V_k , the probability p_l for choosing l is:

$$p_l = \frac{e^{V_l}}{\sum_{s=1}^k e^{V_s}} \quad (2)$$

Through conjoint analysis, the utility of the individual attribute levels can be measured and employed e.g. for estimating, for instance, market share, revenue and even profitability of new product or service designs. In this study, CBC analysis is used in analysing tariff-choice preferences and willingness to pay of the survey respondents as well as for examination of the individual probabilities of the respondents for selecting either flat-rate or pay-per-use tariff.

3.2 Latent-class cluster analysis

Latent-class cluster analysis is the segmentation method, which is used to identify segments of the respondents based on their tariff-choice preferences for relaxation services. According to Wedel & Kamakura (2000), cluster analysis seeks to identify consistent structures in the data by analysing similarities and dissimilarities of the objects to be clustered. Latent-class cluster analysis (LCA) is a model-based approach to cluster analysis, which is one of the most popular post-hoc methods for segmentation (Magidson & Vermunt, 2002; Cooil et al., 2008). According to Zhang (2004), latent-class cluster analysis is used when attributes to be clustered are categorical and continuous. In latent-class model, there is a class variable, which represents the cluster membership and a set of other variables which depict the attributes of the objects (Zhang, 2004).

Selecting a suitable solution for the cluster analysis is a challenging task because there is no ultimate selection criterion, which would always end up with the best solution for the segmentation. Traditionally, Akaike Information Criterion (AIC) or Consistent Akaike Information Criterion (CAIC), which is an improved version of AIC, is used to validate the fitness of the model or solution (Akaike, 1981; Bozdogan, 2000; Imori et al., 2014). According to Bozdogan (2000), model with the minimum value of AIC is the optimal choice in case of multiple competing models.

3.3 Survey method

Market researchers generally conduct surveys for researching the preferences, attitudes or opinions of the consumers. The main advantages of the survey method are that a survey is easy and affordable to arrange and enables data gathering from large number of respondents within a short period. Furthermore, compared to a personal interview, the different aspects and perspectives of the consumers may be better elicited when the respondent is provided

with illustrative and realistic situations and specific choice tasks which are easily and effectively incorporated to the survey. Moreover, by conducting a web-based survey, results of the survey are instantly accessible by different stakeholders of the research and numerous ways to analyze the survey data are available in order to examine the results of the research.

However, survey method has some drawbacks as well. One of the main disadvantages is that survey method may be applied in incorrect or inaccurate manner, which impacts the quality of the data collection (Hackett, 1981). Moreover, respondents are prone to interpret the survey questions and therefore some respondents may be inconsistent or inaccurate in their responses. Also, the assessment of the reliability and validity of the survey is impacted by the sample size and quality as well as reactive and somewhat intuitive responses of the respondents. Moreover, one of the prevailing challenge in conducting a survey is the danger of resulting in low response rate (Hackett, 1981).

4 Relaxation Area survey

4.1 Relaxation Area

Relaxation Area with several different options for relaxing and sleeping was available for visitors at Helsinki-Vantaa Airport between September 2013 and March 2014. The area was a pilot project by Vantaa Innovation Institute's Airport Concepts -project and was designed and implemented in co-operation with Finavia, Barrisol Finland, Glowway, Mitron, AdhocHaus/Restin, Studio Antti E and Uni Rest Solutions. The project was funded by European Regional Development Fund and the initiative was joined by several partners: Aalto University School of Business, Aki Päivärinne, Audico, Finlayson, Haaga-Helia University of Applied Sciences, Hemytek, Isku, LedXprt, Sevende Aromas and Vallila Interior (Vantaa Innovation Institute, 2014).

The design of the Relaxation Area was Finnish atmosphere illustrated by acoustic walls and ceilings as well as elements of Finnish nature, such as ice and northern lights. Access to the area was free of charge and there were three different options for resting, relaxing or even sleeping: silence chair, sleeping pod and sleeping tube. Relaxation Area was located in Terminal 2 next to gate 31 on the Schengen-side of the airport and was open 24 hours a day.

4.2 Survey description

A consumer survey was conducted at the temporary Relaxation Area located in Helsinki-Vantaa Airport during 2013-2014 and in total 300 respondents answered the survey. It consisted of five different sections: background questions, Relaxation area experience, pricing, emotions and personality. The interviewees had a chance to explore Relaxation Area beforehand and there were personnel to help them in case of technical difficulties or any kind of questions related to the survey. The survey was implemented in order to research the passengers' experiences and impressions of the new service concept as well as willingness to pay for the service. It was a web-based survey designed by Aalto University School of Business, which was carried out independently on an iPad either in Finnish or English. The surveying software was Sawtooth Software's SSI Web 7.0.

In the background section, information on respondent's gender, age and country of residence was gathered. Furthermore, respondent's frequency of flying and lounge service usage was surveyed. Also, background part of the survey included questions about time and

reason for travelling, e.g. whether the respondent use to have more leisure or business trips and how much time he or she has until the flight's take-off when he or she enters Relaxation Area. Relaxation Area -experience part consisted of questions related to the general experience, e.g. whether the respondent like the idea of the Relaxation Area, whether he or she is satisfied with the experience and could enter the desired relaxation facilities and whether any technical problems were occurring.

In the pricing part of the survey, a choice-based conjoint (CBC) analysis was employed. Different service profiles were offered to the respondent and he or she was asked to select the best one of the service profiles or alternatively pick "None of these" option. Respondents were asked to select the most preferred service profile ten times among three profiles which were generated by Sawtooth Software's SSI Web using the "complete enumeration option" (Chrzan et. al, 2000). In traditional CBC designs, all the alternatives would have equal number of attributes. However, in the Relaxation Area -survey, which employed an advanced design, the profiles had different numbers of attributes. More specifically, the survey was designed so that for the first level of 'Entrance to Relaxation Area' -attribute, a level of second attribute was not attached at all. The attributes and levels of the survey are itemized in Table 1.

Table 1: Attributes and levels of the CBC survey

Attribute	Level
Entrance to Relaxation Area	Entrance fee 13€ including the use of the whole area.
	Free entrance to Relaxation Area.
	No Relaxation Area. Only sleeping furniture services.
Sleeping furniture services	Use of sleeping tube 8€ / 30 min
	Use of sleeping pod 7€ / 30 min
	Use of sleeping tube 5€ / 30 min
	Use of sleeping pod 4€ / 30 min

Specifically, flat-rate option (e.g. entrance fee 13€) included the access to Relaxation Area and an unlimited usage of the facilities whereas pay-per-use options requested respondents to consider whether they want to use a sleeping pod or a sleeping tube at

Relaxation Area or in the corridor with two different pricing. The fourth alternative in the CBC survey was “None of these”. See Figure 3 for an example question in the survey.

Choose from the service - price alternatives the one you prefer to others. Imagine you have 1 h 45 minutes until your flight's takeoff when you enter the Relaxation Area.

Free entrance to Relaxation Area.	No Relaxation Area. Only sleeping furniture services.	Entrance fee 13€ includes the use of the whole Relaxation Area for one price.	None of these
Use of sleeping pod 4€/30 min.	Use of sleeping tube 8€/30 min.		

← →

0% 100%

Figure 3. Example choice set in the CBC-survey

In addition to the CBC choice sets, respondents' willingness to pay for the Relaxation Area was researched in the survey. Respondents were given a hypothetical preset stating that the respondent has 5 hours until flight's take-off and were asked to provide a freely chosen euro amount which indicates the WTP for the service in the given context.

The two last sections of the survey, emotions and personality, were optional for the respondent. Respondents were requested to express their feeling about Relaxation Area on a 7-point Likert scale (strongly agree, agree, somewhat agree, neither agree nor disagree, somewhat disagree, disagree and strongly disagree) for nine different emotions: Happy, Satisfied, Unhappy, Nervous, Excited, Surprised, Relaxed, Sad and Anxious. This scale is known as the emotional attachment scale (Thomson et al, 2005) which is not optimal in measuring the hedonic/utilitarian dimension of emotions but includes also some emotions in this dimension. In the personality part of the survey, personality of the respondents was studied with the help of BIS-BAS theory which assesses human personality from the point of view of appetitive and aversive motives (Gray, 1990).

The purpose of the survey was to gather information on respondents' preferences for features or attributes of the services and the attached prices. This study focuses on analyzing

the pricing and emotions sections of the survey. Emotions section of Relaxation Area -survey provides indication of the hedonic and utilitarian consumption goals of the respondents. However, emotions selected for the survey are only partly in line with the HED-UT scale defined in earlier research (Batra & Ahtola, 1991; Voss et al., 2003). Due to the lack of purely utilitarian emotions in the survey, this study focuses on researching the emotions, which are hedonic in nature.

4.3 Sample description

Gender distribution of the sample group was relatively balanced. Majority (58,5%) of the survey respondents were males and 41,5 % were females. Age groups 21-30 years (30,8%) and 31-40 years (29,1%) were dominating the age distribution in the survey, nevertheless all the age groups were represented. The respondent base consisted of members from 38 countries, most of them living in Finland (44,1%), Sweden (6,4%) and Germany (5%).

Around 45% of the respondents are frequent flyers and nearly all the respondents are flying at least once a year. The purpose of flying is fairly balanced between business and leisure travelling, with 52,8% of the respondents having most often leisure as a reason for air travelling. However, despite of flying frequently, only few of the respondents have a habit to utilize lounge services at the airport. Around 43% of the respondents have never used lounge services and 35% of the sample use lounge services only less than 25% of their flight occasions. Time spent at the airport before flight's take-off varied between less than one hour and more than four hours, 39,5% of the respondents having between one hour and 1h 50 min time until flight's take-off when entering Relaxation Area. Demographics of the survey respondents are summarized in Table 2.

Table 2: Demographics of the survey respondents

Demographic		Number of respondents	Share of respondents (%)
Gender	Female	124	41,5
	Male	175	58,5
Age	0-20 years	10	3,3
	21-30 years	92	30,8
	31-40 years	87	29,1
	41-50 years	59	19,7
	51-60 years	32	10,7
	61+ years	19	6,4
Country of residence	Finland	132	44,1
	Sweden	19	6,4
	Germany	15	5,0
	Estonia	13	4,3
	Russia	11	3,7
	Other	109	36,5
Frequency of flying	Less than once a year	7	2,3
	1-2 times a year	75	25,1
	3-5 times a year	82	27,4
	More than 5 times a year	135	45,2
Purpose of flying most often	Business	141	47,2
	Leisure	158	52,8
Usage of lounge services	More than 75% of the time	16	5,4
	25-75% of the time	49	16,4
	Less than 25% of the time	104	34,8
	Never	130	43,4
Time before flight's take-off when entering Relaxation Area	Less than 1h	56	18,7
	1h-1h 50min	118	39,5
	2h-2h 50min	43	14,4
	3h-3h 50min	30	10,0
	More than 4h	48	16,1
	Not flying today	4	1,0

5 Results of the study

For analyzing the results of the Relaxation Area -survey, latent-class cluster analysis (LCA) is conducted for dividing the respondent base into segments based on the similarities in their preferences. In this section, cluster solution for segmenting the survey respondents is introduced, the characterization of the clusters is provided and tariff-choice preferences as well as emotions of the survey respondents are examined with a target to identify interconnection between consumption goals and tariff-choice preferences of the respondents.

5.1 Cluster solution

In this study, 3-cluster solution is selected for segmenting the respondent base of Relaxation Area -survey into distinct clusters even though Consistent Akaike Information Criterion (CAIC) indicates that 6-cluster solution would be the optimal choice. Due to the specific target of this research, a cluster solution with members belonging to each cluster in accordance with their tariff-choice preference is the most suitable option for this study. Based on the initial comparison of the cluster solutions with 3, 4, 5 and 6 clusters, 3-cluster solution is the most suitable option for the research, because each one of the clusters seems to be representing certain tariff-choice preference. Another reason for the selection of 3-cluster solution is that pay-per-use option included a selection between lounge and corridor, due to which the identification of the tariff-choice preference group from 4, 5 or 6 cluster solutions would not be optimally conducted. Consequently, 3-cluster solution indicates that members in cluster 1 seem to prefer mainly pay-per-use tariff whereas cluster 2 appears to be preferring flat-rate tariff. However, cluster 3 is not clearly consisting of a group of respondents with the preference for not selecting any of the tariff-choices but is a mixture of respondents preferring pay-per-use tariff and 'None of these'.

Distribution of the survey respondents into the clusters is shown in Figure 4. Cluster 1 is the biggest cluster with 45% of the respondents. The sizes of cluster 2 and 3 are almost equal with each other, because 27% of the respondents belong to cluster 2 and 28% of the respondents belong to cluster 3.

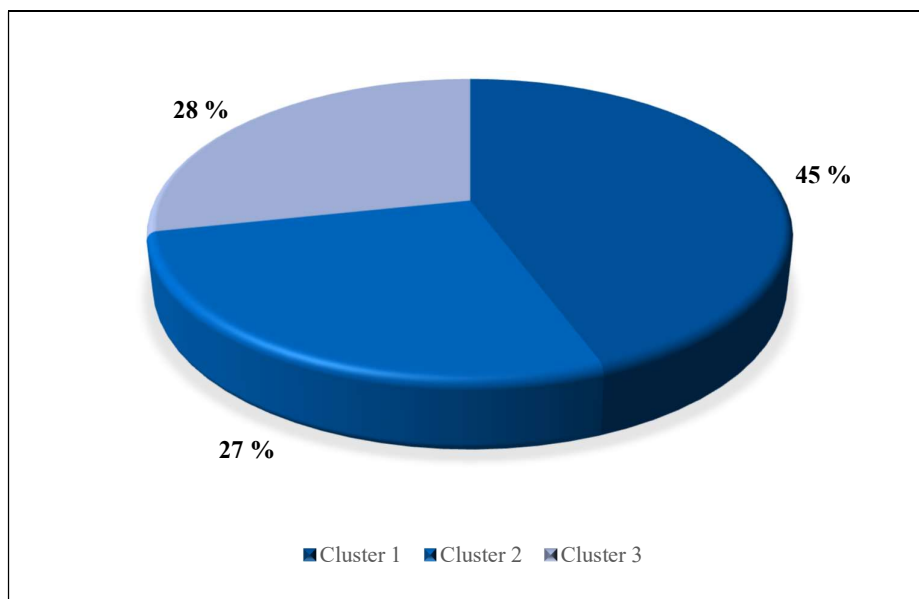


Figure 4. Distribution of respondents in the clusters

5.2 Tariff-choice preferences of the clusters

In this section, tariff-choice preferences of the clusters are analyzed and choice probabilities are calculated for the tariff-choice options of the clusters. The multinomial logit choice model (McFadden, 1974) which was introduced in methodologies section was utilized for the evaluation of alternative tariff-choices. The resulted value can directly be converted to a probability value, i.e. choice probability for selecting a certain tariff. The following tariff options are considered when calculating the choice probabilities of Relaxation Area -survey data:

1) Flat-rate 13€, 2) Sleeping tube 5€/30min, 3) Sleeping pod 4€/30min and 4) NONE. Results are presented in Table 3.

Table 3: Choice probabilities of tariff-choice options in the clusters

Tariff	Cluster 1	Cluster 2	Cluster 3	Total
NONE	1.76%	0.36%	39.92%	12.19%
Flat-rate 13€	1.61%	80.55%	3.76%	23.80%
Sleeping tube 5€/30min	45.75%	10.09%	21.12%	29.02%
Sleeping pod 4€/30min	50.88%	9.00%	35.20%	34.99%

For examining the cluster's preference for tariff-choices, probability for selecting a sleeping tube is combined with the probability for selecting a sleeping pod because both products represent pay-per-use tariff. Figure 5 shows the probability for selecting flat-rate tariff, pay-per-use tariff and 'None of these' -option in the different clusters. Based on the choice probability results, we conclude that cluster 1 consists of respondents preferring pay-per-use tariff, because almost 97% of the cluster is likely to choose pay-per-use tariff. Respondents in cluster 2 are mostly favoring flat-rate, as approximately 80% of the cluster has a probability to select flat-rate tariff. However, cluster 3 is not clearly representing the respondents who are not likely to select either flat-rate or pay-per-use tariff. As figure 5 illustrates, only around 40% of the members in cluster 3 are likely to select NONE-option, which means that over 60% of the user group is preferring either pay-per-use tariff or flat-rate, 56% of the cluster being most likely to prefer pay-per-use tariff.

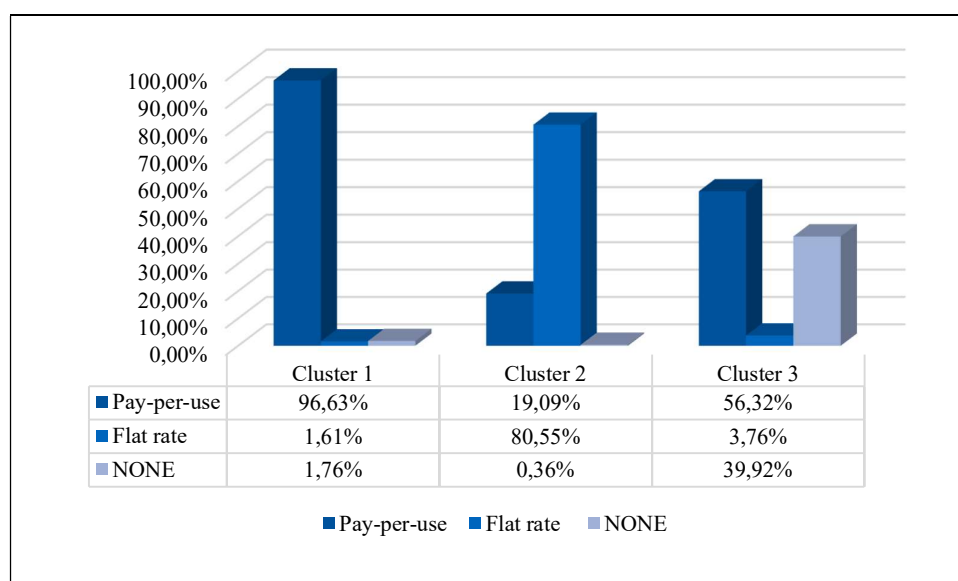


Figure 5. Choice probability for pay-per-use, flat-rate and NONE-option in the clusters

According to the results from the examination of the tariff-choice preferences in the clusters, the following conclusions are drawn. First, pay-per-use preference is prevailing in the sample of survey respondents. Based on the choice probabilities of tariff-choice options in the clusters presented in Table 3, in total 64% of the respondents have a probability for selecting pay-per-use tariff. Namely, among the pool of survey respondents, 34,99% of the respondents are most probably selecting sleeping pod with a price of 4€ per half an hour and 29,02% have the probability of selecting sleeping tube which costs 5€ per half an hour. In addition to 130 respondents (96,63% of the cluster) in cluster 1, pay-per-use preference is existing in cluster 2 and 3 as well. Namely, 15 respondents (19,09%) of the cluster 2 and 47 respondents (56,32%) of the cluster 3 have a probability for choosing pay-per-use option. Second, flat-rate preference is also existing because 23,80% of the survey respondents are favoring flat-rate tariff. Altogether 70 respondents have a flat-rate preference, 65 of them belonging to cluster 2. The existence of pay-per-use, flat-rate and NONE preference among the respondents is shown in Table 4.

Table 4: Number of respondents with a flat-rate, pay-per-use or NONE preference

Tariff-choice preference	Cluster 1	Cluster 2	Cluster 3	TOTAL
<i>Pay-per-use</i>	130	15	47	192
<i>Flat-rate</i>	2	65	3	70
<i>NONE</i>	3	1	34	38
<i>TOTAL</i>	135	81	84	300

After examining clusters' tariff-choice preferences, the emotions section of the Relaxation Area -survey is studied and the interdependency between tariff-choice preference and emotions is examined according to ideas of Uhrich et al (2012). The findings of Uhrich et al. (2012) state that consumption goals and tariff-choice preferences are correlated, and flat-rate is most probably preferred by a consumer who has hedonic consumption goals. In the next section, emotions of the survey respondents are inspected for identifying hedonic or utilitarian motivational goals within the respondent base. Emotions are considered to exhibit the underlying consumption goals of the respondents.

5.3 General characteristics of the clusters

Based on the background information gathered in the Relaxation Area -survey, the clusters in the selected 3-cluster solution can be described. The most prevailing characteristics and most important differences between the clusters are summarized in Table 5. Demographics of the clusters are presented in Appendix A.

Table 5: General characteristics of the clusters

Cluster	Characteristics
Cluster 1	More female respondents, younger persons, relatively frequent flyers, use lounge services less frequently and more on leisure travel
Cluster 2	More male respondents, more middle-aged persons, most frequent flyers and more on business travel
Cluster 3	More male respondents, more respondents outside of Finland, relatively frequent flyers, mostly on leisure travel and most of the respondents have never used lounge services

Chi-Square statistics was carried out for all the background variables for testing whether they and cluster membership are dependent (Appendix A). However, statistically significant dependencies were not found.

5.4 Emotions across the clusters

Based on the findings of Voss et al. (2003) and Batra & Ahtola (1991), hedonic emotions of the Relaxation Area -survey respondents are identified and examined in this study with respect to the theory of Uhrich et al. (2012) about interdependency between hedonic consumption goals and prevailing preference for flat-rate tariff. In this section, analysis results of the examination of the emotions affecting tariff-choice in the different clusters are presented.

The number of respondents answering to the emotional part of the Relaxation Area survey was 289 out of 300 respondents. Emotions of the respondents were surveyed by requesting to indicate the level of nine different emotions: Satisfied, Surprised, Happy, Unhappy, Nervous, Anxious, Excited, Relaxed and Sad (Thomson et al, 2005). The following 7 point Likert scale of the emotions is used in the analysis: Strongly disagree (7),

Disagree (6), Somewhat disagree (5), Neither agree nor disagree (4), Somewhat agree (3), Agree (2) and Strongly agree (1). As already discussed this scale is not a pure hedonic/utilitarian emotions scale but includes also other kinds of emotions. Factor analyses were run to see the structure of the emotions. The most important factors included both hedonic and other emotions which led to the decision that the emotions were dealt with as one by one.

Figure 6 presents the percentage of respondents in different clusters who either somewhat agree, agree or strongly agree with the emotion whereas Figure 7 is presenting the share of respondents who either somewhat disagree, disagree or strongly disagree with the emotion in question. According to Voss et al (2003), hedonic gratification represents sensations of the consumer, compared to the utilitarian dimension, which is derived from the functional performance of the products or services. As presented in Figure 6, 'Happy', 'Satisfied', 'Relaxed', 'Excited' and 'Surprised' are emotions which are agreed by majority of the respondents in each of the clusters. In figure 7, emotions which are disagreed by majority of the respondents in all the clusters are shown.

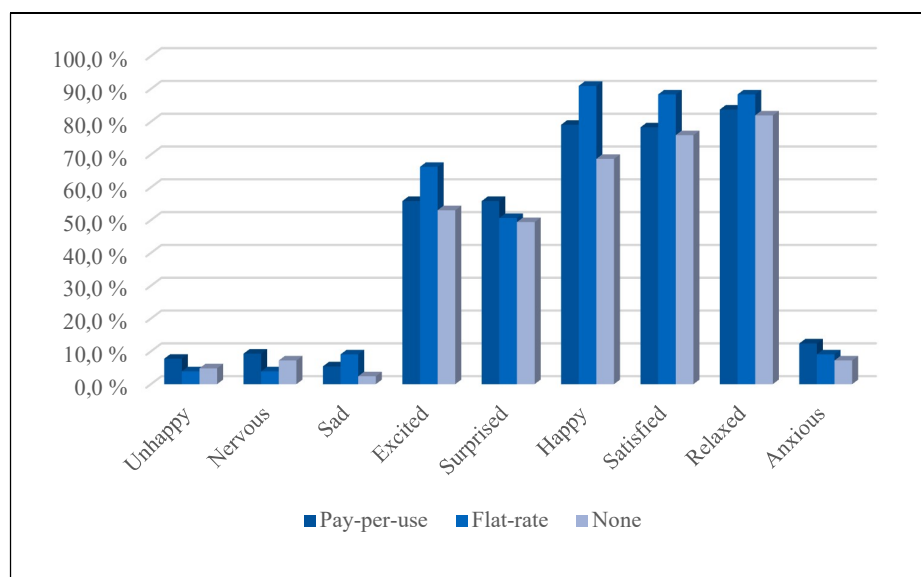


Figure 6. Percentage of somewhat agree, agree or strongly agree -responses

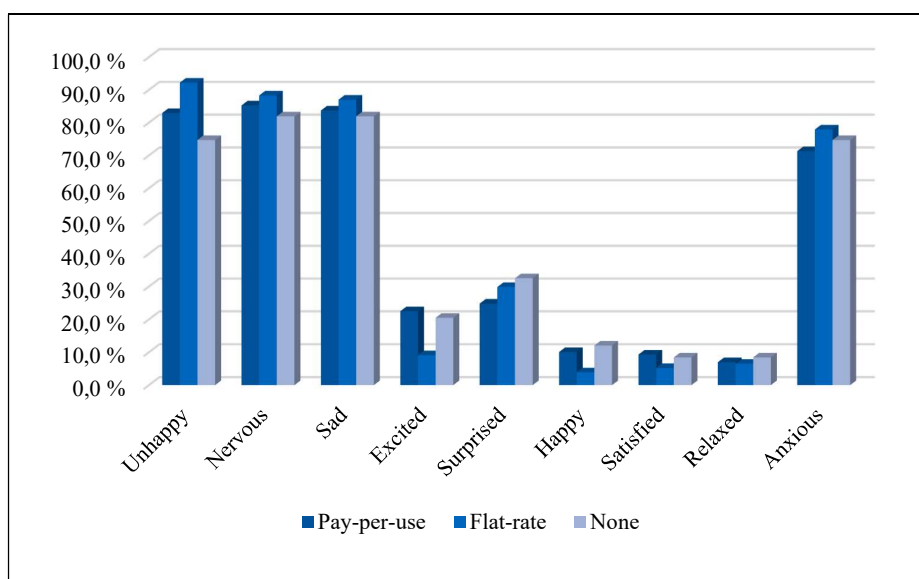


Figure 7. Percentage of somewhat disagree, disagree or strongly disagree -responses

Based on the percentages of somewhat agree/disagree, agree/disagree and strongly agree/disagree -responses, all nine emotions are selected for further analysis. In the following sections, distribution of the emotions in clusters 1, 2 and 3, which are re-named to *Pay-per-use*, *Flat-rate* and *None*, are compared with each other. Differences in each of the emotions between the clusters are summarized in the following sections. See Appendix B for the comparison results of emotions between the clusters.

5.4.1 Unhappy

Almost half of the *Flat-rate* cluster is strongly disagreeing with the emotion ‘Unhappy’ and 36% of them are disagreeing with the emotion. In the *Pay-per-use* cluster, more than 40% of the respondents are strongly disagreeing and around 35% of the respondents are disagreeing with the emotion. *None* cluster is having the same trend, apart from having 20% of the members neither agreeing nor disagreeing with the emotion.

5.4.2 Nervous

Most of the respondents in *Flat-rate* cluster are strongly disagreeing with the emotion ‘Nervous’ whereas the share of respondents strongly disagreeing is approximately 40% in *Pay-per-use* cluster and around 43% in *None* cluster.

5.4.3 Sad

'Sad' is one of the emotions, which is mostly disagreed across the clusters. Around 50% of the respondents in *Flat-rate* cluster and *None* cluster are strongly disagreeing with the emotion whereas in *Pay-per-use* cluster the figure is around 45%.

5.4.4 Excited

'Excited' emotion is mostly agreed by the clusters as 10% of the respondents in *Flat-rate* cluster are strongly agreeing, almost 30% of the respondents are agreeing and 26% are somewhat agreeing with the emotion. Around 50% of the respondents in *Pay-per-use* cluster are either somewhat agreeing, agreeing or strongly agreeing with the emotion 'Excited'. In the *Flat-rate* cluster the share of respondents either somewhat agreeing, agreeing or strongly agreeing is around 65%.

5.4.5 Surprised

Emotion 'Surprised' is not strongly agreed or disagreed in the clusters and the feeling is relatively evenly distributed in the emotional scale. In the *Flat-rate* cluster around 50% of the members are either somewhat agreeing, agreeing or strongly agreeing with the emotion. In the *Pay-per-use* cluster the figure is approximately 55% and in *None* cluster less than 50%. However, *Flat-rate* cluster has greatest number of members disagreeing with the emotion as around 15% of the cluster is disagreeing with 'Surprised' emotion.

5.4.6 Happy

Most of the respondents in *Flat-rate* cluster are agreeing with 'Happy' emotion. The percentage of respondents somewhat agreeing, agreeing or strongly agreeing with the emotion is around 85% in *Flat-rate* cluster, around 75% in *Pay-per-use* cluster and 63% in *None* cluster.

5.4.7 Satisfied

'Satisfied' is one of the most agreed emotions in *Flat-rate* cluster, with around 20% of respondents strongly agreeing and almost 47% agreeing with the emotion. In the *Pay-per-use* cluster and *None* cluster the share of respondents agreeing or strongly agreeing with emotion 'Satisfied' is smaller than in *Flat-rate* cluster. Around 50% of the *Pay-per-use* cluster and 55% of the *None* cluster is either agreeing or strongly agreeing, whereas in *Flat-rate* cluster the figure is nearly 70%.

5.4.8 Relaxed

Around 76% of the respondents in *Flat-rate* cluster are either agreeing or strongly agreeing with the emotion 'Relaxed'. Approximately 40% of the respondents in *Pay-per-use* cluster are agreeing and 26% of the respondents are strongly agreeing with the emotion 'Relaxed'. Most of the respondents in *None* cluster are feeling the same, as 57% of the cluster is either agreeing or strongly agreeing with the emotion.

5.4.9 Anxious

'Anxious' is one of the emotions, which is disagreed by the clusters. Respondents in both *Flat-rate* cluster and *None* cluster are mostly disagreeing with the emotion, as approximately 66% of *Flat-rate* cluster and 67% of *None* cluster is either strongly disagreeing or disagreeing with the emotion 'Anxious'. The same trend is recognized in *Pay-per-use* cluster, however with more evenly distributed emotions and slightly smaller share of respondents strongly agreeing or agreeing with the emotion.

As stated by Uhrich et al. (2012), there is evidence that respondents with hedonic consumption goals usually have stronger emotional load, and are consequently more likely to experience the extremes of the emotional scales. On the contrary, respondents with utilitarian consumption goals have more moderate and evenly distributed emotions. This theory reflects on findings from the emotional analysis, wherein *Flat-rate* cluster is having the greatest share of respondents with extreme emotions. In the next section, test of proportions is performed for each of the emotion to research the statistical significance of the differences between emotions in *Flat-rate* and *Pay-per-use* clusters.

5.5 Emotions of groups preferring flat-rate and pay-per-use

Tests of proportions are carried out for the emotions in order to test whether the proportion of respondents agreeing or disagreeing with an emotion is equal or different in *Flat-rate* and *Pay-per-use* clusters. Tests of proportions are run separately for testing three and two combined Likert scale points. Specifically, test of proportions for three combined scale points includes Likert scale values 1, 2 & 3 (strongly agree, agree and somewhat agree) and 7, 6 & 5 (strongly disagree, disagree and somewhat disagree) and the similar tests for two combined scale points includes Likert scale values 1 & 2 (strongly agree and agree) and 7 & 6 (strongly disagree and disagree).

The test measure for test of proportions in this case is:

$$z = \frac{(p_1 - p_2) - 0}{\sqrt{p(1-p)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \quad (3)$$

where p_1 is the proportion of *Flat-rate* cluster, p_2 is the proportion of *Pay-per-use* cluster, p is the overall proportion, n_1 is the sample size of *Flat-rate* cluster and n_2 is the sample size of *Pay-per-use* cluster.

Tests of proportions are run for all nine emotions, which were included in the emotions section of Relaxation Area -survey. For the hedonic emotions (Happy, Satisfied, Excited, Unhappy and Sad), one-tailed test is applied for testing whether proportion of respondents agreeing or disagreeing with the emotion in question in *Flat-rate* cluster is greater than in *Pay-per-use* cluster or equal to the proportion of respondents in *Pay-per-use* cluster. For the remaining four emotions (Nervous, Anxious, Relaxed and Surprised) two-tailed test is executed for testing whether the proportion of respondents agreeing or disagreeing with a particular emotion is equal or different in the clusters. In the following sections, tests of proportions are carried out and statistically significant results are presented.

5.5.1 Test of proportions for emotions with three combined Likert-scale points

In this section, results of the test of proportions with three combined Likert scale points are presented. Test is one-tailed with a significance level of 0.05 for hedonic emotions and two-tailed with the same significance level for other emotions researched in the emotions section of the survey.

Null hypothesis (H_0) states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is equal in *Pay-per-use* and *Flat-rate* clusters ($p_1 = p_2$). Alternative hypothesis (H_A) for one-tailed test states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is greater in *Flat-rate* cluster than in *Pay-per-use* cluster ($p_1 > p_2$). Alternative hypothesis (H_A) for two-tailed test states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is not equal in *Flat-rate* and *Pay-per-use* clusters. ($p_1 \neq p_2$).

Test results of the one-tailed tests for hedonic emotions are presented in Table 6. Statistically significant differences were not found for emotions ‘Nervous’, ‘Anxious’, ‘Relaxed’ and ‘Surprised’ for which two-tailed tests were carried out.

Table 6: P-values of one-tailed test for two combined Likert scale points

Emotion	Strongly agree/disagree, agree/disagree or somewhat agree/disagree P-value
Happy	0.0075
Satisfied	0.0262
Unhappy	0.0202

Based on the test results presented in Table 6, the following conclusions are drawn. First, the proportion of respondents strongly agreeing, agreeing or somewhat agreeing with the emotion ‘Happy’ or ‘Satisfied’ among respondents in *Flat-rate* cluster is greater than that proportion among respondents in *Pay-per-use* cluster. Second, the proportion of respondents strongly disagreeing, disagreeing or somewhat disagreeing with the emotion ‘Unhappy’ among respondents in *Flat-rate* cluster is greater than that proportion among respondents in *Pay-per-use* cluster. Therefore, alternative hypothesis (H_A) is accepted for emotions ‘Happy’, ‘Satisfied’ and ‘Unhappy’ with three combined Likert scale points.

5.5.2 Test of proportions for emotions with two combined Likert-scale points

Similarly as in case of three combined Likert scale points, tests of proportions are calculated for two combined Likert scale points. Test is one-tailed with a significance level of 0.05 for hedonic emotions and two-tailed with the same significance level for other emotions.

Null hypothesis (H_0) states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is equal in *Pay-per-use* and *Flat-rate* clusters ($p_1 = p_2$). Alternative hypothesis (H_A) for one-tailed test states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is greater in *Flat-rate* cluster than in *Pay-per-use* cluster ($p_1 > p_2$). Alternative hypothesis (H_A) for two-tailed test states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is not equal in *Pay-per-use*

and *Flat-rate* clusters ($p_1 \neq p_2$). Statistically significant findings from one-tailed test are presented in Table 7 whereas the results of two-tailed tests are presented in Table 8.

Table 7: P-values of one-tailed test for two combined Likert scale points

Emotion	Strongly agree /disagree or agree/disagree P-value
<i>Happy</i>	0.0096
<i>Satisfied</i>	0.0051

Table 8: P-values of two-tailed test for two combined Likert scale points

Emotion	Strongly agree /disagree or agree/disagree P-value
<i>Nervous</i>	0.0434

Based on the test results presented in Table 7 and 8, the following conclusions are drawn. First, the proportions of *Flat-rate* cluster strongly agreeing and agreeing with the emotions ‘Happy’ and ‘Satisfied’ is greater than the proportions of *Pay-per-use* cluster. Second, the proportion of *Flat-rate* cluster strongly disagreeing or disagreeing with the emotion ‘Nervous’ is greater than the corresponding proportion of *Pay-per-use* cluster. Therefore, alternative hypothesis (H_A) is accepted for emotions ‘Happy’, ‘Satisfied’ and ‘Nervous’ with two combined Likert scale points.

Results of the research on the emotions of the 3-cluster solution indicate that the proportion of respondents feeling happy or satisfied is greater in *Flat-rate* cluster than in *Pay-per-use* cluster. On the other hand, the proportions of respondents strongly disagreeing, disagreeing or somewhat disagreeing with the emotion ‘Unhappy’ and strongly disagreeing or disagreeing with the emotion ‘Nervous’ are also greater in *Flat-rate* cluster. For confirming the findings on the interconnection between flat-rate and hedonic emotions and scrutinizing the respondents with the highest probability for selecting flat-rate tariff, emotions of the respondents belonging to either *Flat-rate* or *Pay-per-use* cluster with a 0.85 or greater, 0.9 or greater and 0.95 or greater probability are investigated more closely. The individual respondents with a certain probability for selecting either flat-rate or pay-per-use tariff are picked out from the pool of survey respondents and the individual respondents are allocated to either a flat rate group or pay per use group if their probability to choose the flat

rate or pay per use is exceeding a choice probability threshold. Sensitivity analysis for three different threshold is carried out.

5.6 A second approach for pairwise comparison of the emotions

In conjoint analysis studies, which produce utilities, respondents' choice probability calculations are frequently carried out to produce more easily interpretable results. Consequently, choice probabilities were calculated for the following service options: Flat-rate 13€, Sleeping pod 4€/30min, Sleeping tube 5€/30min and 'None of these'. The individual choice probabilities of the respondents were studied for the different options. The probabilities of selecting a sleeping pod or a sleeping tube were combined in the analysis because they are both categorized as pay-per-use options. For re-testing the recognized interconnection between preference for flat-rate and hedonic emotions, individual choice probabilities of the survey respondents are examined with a target to discover the respondents whose probability to select a certain tariff is equal or greater than some high threshold value.

As discussed in section 3.1, the multinomial logit choice model (McFadden, 1974) is a building block in CBC analysis. It enables to convert estimated utilities into choice probabilities. The individual choice probabilities are expected to indicate an even stronger interrelationship between flat-rate tariff and hedonic consumption goals (Uhrich et al, 2012) than in case of examining the three clusters identified during the initial latent-class cluster analysis. As can be seen from the description of clusters in section 5.2, third cluster is not a pure *None* cluster with around 60% of the respondents favoring pay-per-use or flat-rate tariff. Similarly, cluster 2 contains also some members, whose probability to select lower-priced pay-per-use tariff is higher than probability to select flat-rate.

The division of respondents into samples based on their probability for selecting either flat-rate or pay-per-use tariff with an equal or greater choice probability than a threshold value (0.85, 0.9 or 0.95) was carried out and the sample sizes are presented in Table 9. When high threshold probability values 0.85, 0.9 and 0.95 were selected, it turned out that both strong flat-rate preference and pay-per-use preference are represented among the respondents. Employing those values not too many respondents needed to be excluded which was the main reason for the choice of the threshold probability values. Furthermore, the higher the threshold for choice probability is set, the higher the probability of finding the respondents with clear and consistent preference for either flat-rate or pay-per-use tariff.

Table 9: Number of respondents in the samples with ≥ 0.85 , ≥ 0.9 or ≥ 0.95 choice probability

Choice probability	Flat-rate	Pay-per-use	Total
≥ 0.85	45	144	189
≥ 0.9	38	136	174
≥ 0.95	35	115	150

In the next sections, emotions are examined for the three sets of ‘Flat-rate’ and ‘Pay-per-use’ samples, consisting of respondents that have high probabilities (i.e. exceeding different threshold probabilities) of selecting a specific tariff. More differences in emotions are dealt with carrying out sensitivity analysis using different thresholds. Tests of proportions are run to compare the emotion responses.

5.6.1 Sensitivity analysis for three combined Likert scale points on emotional scale

Respondents with 0.85 or greater, 0.9 or greater and 0.95 or greater probability for selecting either flat-rate or pay-per-use tariff are studied in this section with regards to their emotions. Tests of proportions for both three combined as well as two combined Likert scale points are carried out for the samples. Test is one-tailed with a significance level of 0.05 for hedonic emotions and two-tailed with the same significance level for other emotions. Test results of the one-tailed tests for hedonic emotions are presented in Table 10. Statistically significant differences were not found for emotions ‘Nervous’, ‘Anxious’, ‘Relaxed’ and ‘Surprised’ for which two-tailed tests were carried out.

Null hypothesis (H_0) states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is equal in ‘Flat-rate’ and ‘Pay-per-use’ samples with pre-specified threshold for choice probability ($p_1 = p_2$). Alternative hypothesis (H_A) for one-tailed test states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is greater in ‘Flat-rate’ sample than in ‘Pay-per-use’ sample ($p_1 > p_2$). For two-tailed test, alternative hypothesis (H_A) states that the proportion of respondents strongly agreeing/disagreeing, agreeing/disagreeing or somewhat agreeing/disagreeing with the emotion is not equal in ‘Flat-rate’ and ‘Pay-per-use’ samples with pre-specified threshold for choice probability ($p_1 \neq p_2$).

Table 10: P-values of one-tailed test with ≥ 0.85 , ≥ 0.9 or ≥ 0.95 choice probability

Emotion (choice probability)	Strongly agree/disagree, agree/disagree or somewhat agree/disagree P-value
Happy (0.85)	0.0017
Happy (0.9)	0.0003
Happy (0.95)	0.0018
Excited (0.85)	0.0113
Excited (0.9)	0.0045
Excited (0.95)	0.0023
Satisfied (0.9)	0.0233
Satisfied (0.95)	0.0158

The test results for three combined Likert scale points presented in Table 10 evidence that there are several statistically significant differences in the samples. First, the proportion of respondents strongly agreeing, agreeing or somewhat agreeing with emotion ‘Happy’ among the respondents preferring flat-rate tariff with 0.85 or greater, 0.9 or greater and 0.95 or greater choice probability is greater than that proportion among respondents favoring pay-per-use tariff with similar probabilities. Second, the proportion of respondents strongly agreeing, agreeing or somewhat agreeing with emotion ‘Satisfied’ among the respondents preferring flat-rate tariff with equal or greater than 0.9 choice probability or equal or greater than 0.95 choice probability is greater than that proportion among respondents with the same choice probability for pay-per-use tariff. Third, the proportion of respondents strongly agreeing, agreeing or somewhat agreeing with emotion ‘Excited’ among those preferring flat-rate tariff with 0.85 or greater, 0.9 or greater or 0.95 or greater choice probability is greater than that proportion among the respondents favoring pay-per-use tariff. Therefore, alternative hypothesis (H_A) is accepted for emotions ‘Happy’, ‘Satisfied’ and ‘Excited’ in case of three combined Likert scale points.

5.6.2 Sensitivity analysis for two combined Likert scale points on emotional scale

Similarly, tests of proportions with two combined Likert scale points are carried out for the samples with pre-specified threshold for choice probability. Test is one-tailed with a significance level of 0.05 for hedonic emotions and two-tailed with the same significance level for other emotions. Test results of the one-tailed tests for hedonic emotions are

presented in Table 11. Similarly as in case of three combined scale points, statistically significant differences were not found for emotions ‘Nervous’, ‘Anxious’, ‘Relaxed’ and ‘Surprised’ for which two-tailed tests were executed.

Null hypothesis (H_0) states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is equal in ‘Flat-rate’ and ‘Pay-per-use’ samples with pre-specified threshold for choice probability ($p_1 = p_2$). Alternative hypothesis (H_A) for one-tailed test states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is greater in ‘Flat-rate’ sample than in ‘Pay-per-use’ sample ($p_1 > p_2$). For two-tailed test, alternative hypothesis (H_A) states that the proportion of respondents strongly agreeing/disagreeing or agreeing/disagreeing with the emotion is not equal in ‘Flat-rate’ and ‘Pay-per-use’ samples with pre-specified threshold for choice probability ($p_1 \neq p_2$).

Table 11: P-values of one-tailed test with ≥ 0.85 , ≥ 0.9 or ≥ 0.95 choice probability

Emotion (choice probability)	Strongly agree or agree P-value
Happy (0.85)	0.0040
Happy (0.9)	0.0110
Satisfied (0.9)	0.0136
Satisfied (0.95)	0.0202
Unhappy (0.9)	0.0375
Unhappy (0.95)	0.0392

The proportion of respondents strongly agreeing or agreeing with emotion ‘Happy’ among the respondents preferring flat-rate tariff with 0.85 or greater or 0.9 or greater choice probability is greater than that proportion among the respondents favoring pay-per-use tariff. Second, the proportion of respondents strongly agreeing or agreeing with emotion ‘Satisfied’ among the respondents who prefer flat-rate tariff with equal or greater than 0.9 choice probability or equal or greater than 0.95 choice probability is greater than that proportion among respondents having the same choice probability for selecting pay-per-use tariff. Third, the proportion of respondents strongly disagreeing or disagreeing with emotion ‘Unhappy’ among those preferring flat-rate tariff with 0.9 or greater or 0.95 or greater choice probability is greater than that proportion among the respondents preferring pay-per-use tariff with the same choice probability. Therefore, alternative hypothesis (H_A) is accepted

for emotions ‘Happy’, ‘Satisfied’ and ‘Unhappy’ in case of two combined Likert scale points. Based on the results of the examination of the respondents with high choice probability for flat-rate tariff, we conclude that there is certainly interconnection between emotions ‘Happy’, ‘Satisfied’ and ‘Excited’ and a strong preference for flat-rate tariff.

5.7 Willingness to pay

In this section, willingness to pay (WTP) of the respondents with 0.85 or greater, 0.9 or greater and 0.95 or greater probability for selecting either flat-rate or pay-per-use tariff are studied and t-test statistics are conducted for comparing the averages of the WTP in the ‘Pay-per-use’ and ‘Flat-rate’ samples. Null hypothesis (H_0) states that the average WTP is the same in ‘Pay-per-use’ and ‘Flat-rate’ samples. On the contrary, alternative hypothesis (H_A) states that the average WTP is not the same in ‘Pay-per-use’ and ‘Flat-rate’ samples.

Figure 8 presents willingness to pay of the samples with 0.85 or greater probability for selecting either flat-rate or pay-per-use tariff. Based on the bar chart of Figure 8, it is evident that the mean WTP of the respondents in ‘Flat-rate’ sample is greater than WTP of the respondents belonging to ‘Pay-per-use’ sample with 0.85 or greater probability. T-test results indicate that the mean WTP of ‘Flat-rate’ sample with 0.85 or greater choice probability is significantly different from the mean WTP of ‘Pay-per-use’ sample ($t(142.08)=3.43$, $p=0.0008$). The difference in the means is approximately 3,5 euros.

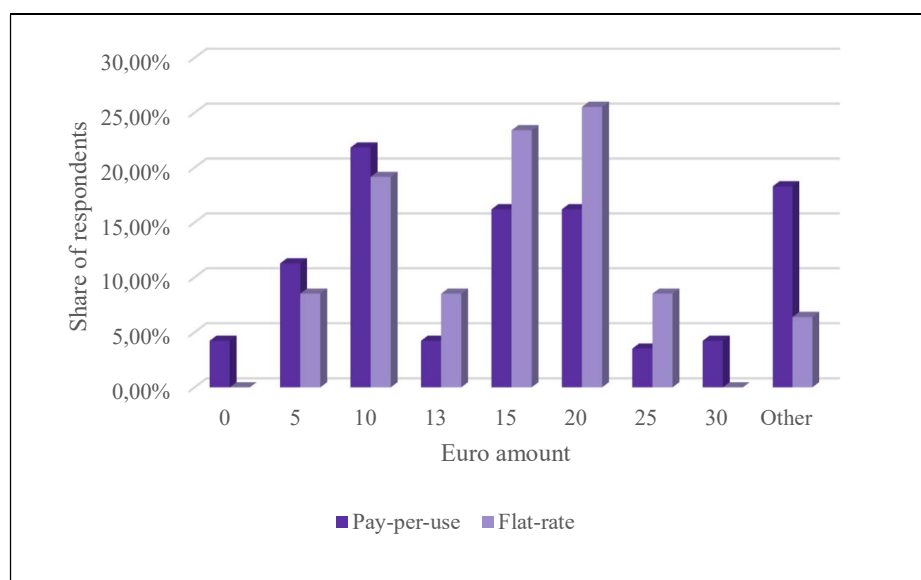


Figure 8. Willingness to pay of the samples with 0.85 or greater choice probability

Similarly, willingness to pay of the samples with 0.9 or greater choice probability is examined. Based on Figure 9, it is evident that the willingness to pay of the respondents in 'Flat-rate' sample is greater than WTP of the respondents belonging to 'Pay-per-use' sample with 0.9 or greater probability. T-test results indicate that the mean WTP of 'Flat-rate' sample with 0.9 or greater choice probability is different from the mean WTP of 'Pay-per-use' sample. The difference in average WTP between the samples is statistically significant ($t(114.19)=3.00$, $p=0.0034$).

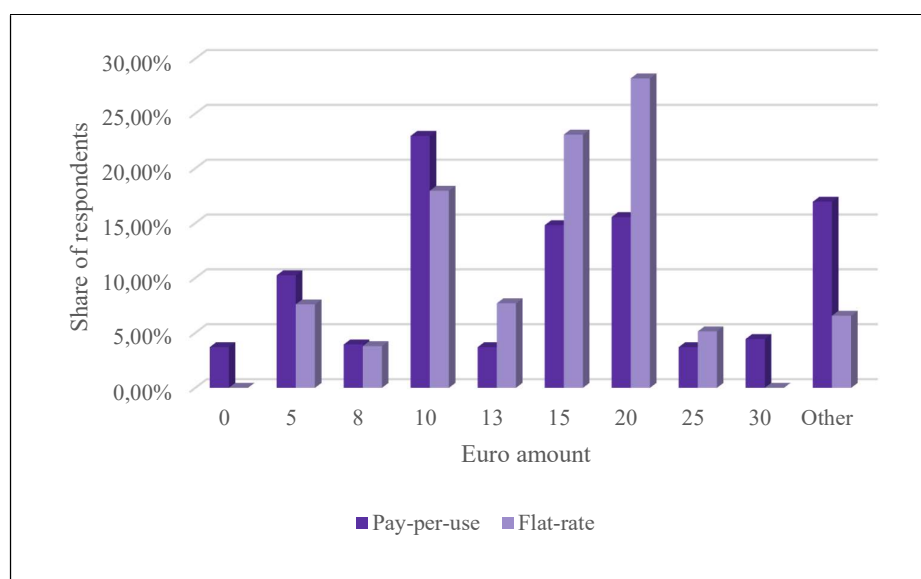


Figure 9. Willingness to pay of the samples with 0.9 or greater choice probability

WTP of the samples with 0.95 or greater choice probability is studied with the same method than other two choice probability sample groups. Based on Figure 10, it is evident that the willingness to pay of the respondents in 'Flat-rate' sample is greater than the WTP of the respondents belonging to 'Pay-per-use' sample with 0.95 or greater probability. T-test results indicate that the mean WTP of 'Flat-rate' sample with 0.95 or greater choice probability is different than the mean WTP in 'Pay-per-use' sample. The difference in average WTP between the samples is statistically significant ($t(123.44)=2.78$, $p=0.0063$).

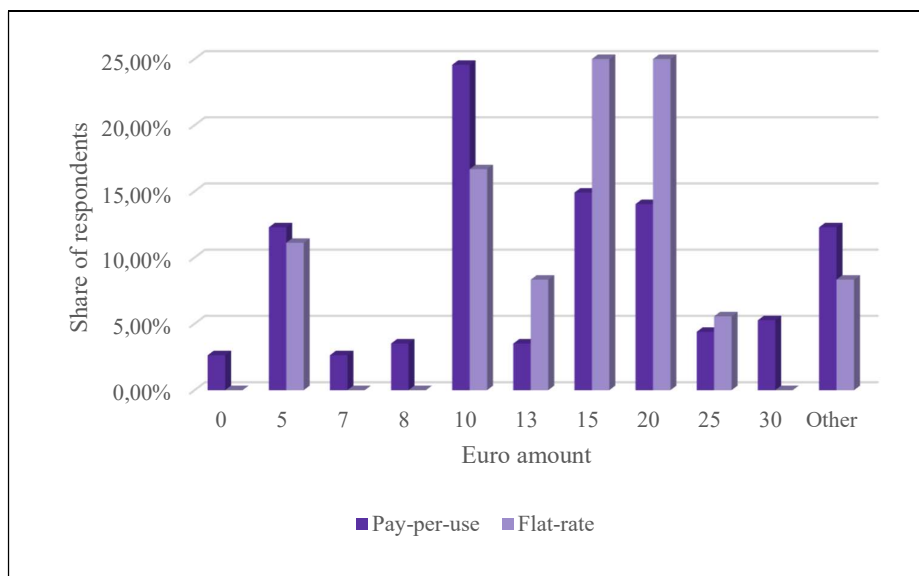


Figure 10. Willingness to pay of the samples with 0.95 or greater choice probability

After examining the willingness to pay (WTP) of the respondents with 0.85 or greater, 0.9 or greater and 0.95 or greater probability for selecting either flat-rate or pay-per-use tariff and conducting t-test statistics for researching the mean WTP in 'Flat-rate' and 'Pay-per-use' samples, the conclusion is that the mean WTP of 'Flat-rate' sample is significantly different from the mean WTP of 'Pay-per-use' sample. Therefore, alternative hypothesis (H_A) is accepted for all the sample groups with certain threshold for choice probability.

6 Discussion

In this section, findings of the thesis are discussed as well as the reliability and validity of the results is elaborated. At the end of the section, limitations to study are brought up.

6.1 Results to the research questions

The first research question concerned the tariff-choice preferences of the survey respondents. The question was: “How does flat-rate preference and/or pay-per-use preference exist among the respondents of Relaxation Area -survey?”. Tariff-choice preferences of the respondents were researched first for the three clusters identified by latent-class cluster analysis (LCA) and secondly for the individual respondents by examining personal choice probabilities of the respondents for either a flat-rate or pay-per-use tariff. Results from latent-class clustering indicate that 27% of the respondents are belonging to cluster 2 which is mostly favoring flat-rate tariff whereas 45% of the respondents are members of cluster 1, which has the biggest share of respondents favoring pay-per-use tariff. Cluster 3 consist of 28% of the respondents preferring either “None of these” option or pay-per-use tariff. Therefore, we can conclude that based on the LCA results, 64% of the respondents seem to have pay-per-use preference and around 24% of the respondents seem to have flat-rate preference. The remaining 12% of the respondents have a prevailing preference for “None of these” option.

In order to identify the respondents with the highest choice probability for either flat-rate or pay-per-use tariff, the individual tariff-choice preferences of the respondents were examined by dividing the respondents into sample groups based on each respondent’s individual choice probability for certain tariff (See table 8). With 0.85 or greater choice probability, 24% of respondents belong to flat-rate sample and 76% of respondents are preferring pay-per-use tariff and belonging to pay-per-use sample. Similarly, with 0.9 or greater choice probability the flat-rate sample includes 22% of the respondents and pay-per-use sample 78% of the respondents. Finally, with the 0.95 or greater choice probability, 23% of the respondents have high probability for selecting flat-rate and whereas 77% of the respondents prefer pay-per-use tariff. The results indicate that both flat-rate preference and pay-per-use preference exist among the survey respondents, majority of the respondents having a pay-per-use preference.

The second research objective was to identify and examine the emotions of the Relaxation Area -survey respondents with respect to theory defined by Uhrich et al. (2012) about the interconnection between hedonic motivational goals for consumption and a

preference for flat-rate pricing. The research questions were the following: “Are the hedonic emotions of Relaxation Area -survey respondents reflecting their motivational goals for consumption and ultimately correlating with flat-rate tariff-choice? More specifically, are the respondents with a flat-rate preference happier, more excited or more satisfied than the respondents favouring pay-per-use tariff?”

The results of the emotional research combined with the clusters defined based on the tariff-choice preference of the respondents indicate that consumers with a high probability for selecting flat-rate tariff have stronger hedonic emotions compared to the respondents whose probability for choosing pay-per-use price is the highest. Not only the extremeness of the emotions is empirically identified but the proportion of respondents strongly agreeing or agreeing with the emotions ‘Happy’ and ‘Satisfied’ with high choice probability for flat-rate tariff is greater than that proportion of respondents with high choice probability for pay-per-use tariff. Furthermore, the proportion of respondents strongly agreeing, agreeing or somewhat agreeing with the emotions ‘Excited’, ‘Happy’ and ‘Satisfied’ with high choice probability for flat-rate tariff is greater than that proportion of respondents with high probability for opting for pay-per-use tariff. The findings on these three emotions are statistically significant and therefore we can conclude that Relaxation Area -survey respondents with a preference for flat-rate tariff are happier, more excited and more satisfied than their counterparts with a preference for pay-per-use pricing.

The third research question was: “What is the relationship of consumer’s tariff-choice preference with willingness to pay (WTP) for the service? “. For answering the last research question, willingness to pay of the ‘Flat-rate’ and ‘Pay-per-use’ samples with 0.85 or greater, 0.9 or greater and 0.95 or greater choice probability was analyzed. For the WTP question in the Relaxation Area -survey, respondents were asked to imagine that they have 5 hours until flight’s take-off and indicate their WTP as a euro amount. The results of the study show that the respondents with high probability for selecting flat-rate tariff are willing to pay more for the Relaxation Area than the respondents with high probability for choosing pay-per-use option. Therefore, it is evident that tariff-choice preference and willingness to pay are interrelated.

6.2 Reliability and validity of the results

Reliability and validity of the results are affected by the hypothetical nature of the survey. Actual behavior may differ from the stated preferences and therefore data gathered in real purchase situation would have more external validity. However, reliability and validity was

improved by arranging the survey at Helsinki-Vantaa airport and providing respondents with an opportunity to physically visit Relaxation Area and support any time it was requested. Also, respondents were allowed to independently and in peace fill in the questionnaire which also impacts the validity of the survey compared to a situation in which either a person is interviewing the visitors or they are asked to fill in the form somewhere outside of the Relaxation Area. Reliability of the results in quantitative analysis part of the thesis is enhanced by dividing the respondent base into clusters or sample groups in two different means. Firstly, latent-class cluster analysis was conducted and secondly respondents were divided into sample groups by examining the choice probabilities of individual respondents and segmenting them according to the highest choice probability for certain tariff. By segmenting the respondent base also based on individual choice probabilities, the initial 3-cluster solution executed by Sawtooth Software LC, was enhanced and more distinguishable segmentation based on tariff-choice preference of the respondents was achieved. However, the sample sizes for the respondents with 0.85 or greater, 0.9 or greater and 0.95 or greater choice probability for a certain tariff-choice were rather small, which affects the reliability and validity of the findings.

Choices of attributes and levels for the CBC survey were suitable for examining the respondents' selection between an entrance fee to the whole Relaxation Area and a time-based tariff for a sleeping furniture. Even though the survey was also researching the selection of lounge or corridor alternative in case of pay-per-use tariff, the validity of this study is not diminished. The emotions which were included for the survey were not selected specifically for this research and consequently they were not comprehensively addressing the hedonic emotions of the respondents. Nevertheless, the emotions which were found statistically significant, 'Happy', 'Unhappy', 'Excited' and 'Satisfied', are indicating hedonism rather clearly, and therefore the reliability and validity of the results is not affected by the selection of the emotions for the survey.

6.3 Limitations to study

There are some limitations to the study, which are discussed in this section. First, the emotions researched in Relaxation Area -survey are only partly corresponding to the scales of hedonic emotions defined by Batra & Ahtola (1991) and Voss et al. (2003). Utilitarian emotions were not researched in this study due to the inexistence of clearly utilitarian emotions in the emotions section of the survey. Second, emotions were assumed to reflect the consumption goals of the respondents, even though other perspectives of consumer

behavior and decision making could be impacting the identification of consumers' consumption goals. As earlier research (Batra & Ahtola, 1991; Lindenberg, 2001; Lindenberg & Steg, 2007; Barbopoulos & Johansson, 2016) states, consumers most probably have more than one motivational goal for the consumption. Third, emotions and willingness to pay of the consumers are individual and situation specific, which challenges the research on them because certain emotion of a consumer does not necessarily arise due to the service encounter but may be explained by personal issues or circumstances of the consumer. Therefore, more research is needed for determining the variety of aspects underlying behind consumer behavior and buying intentions.

7 Conclusion

In the last section of the thesis, managerial implications of the study are presented and suggestions for future research are provided.

7.1 Managerial implications

Earlier research (Somervuori, 2012; Miller et al., 2011; Wertenbroch & Skiera, 2002) has evidenced that estimates on willingness to pay of the consumers is required for placing selling price at right level, developing new products and composing strategies for competition. The study showed that consumers who are willing to pay a fixed and constant flat-rate are more often obtaining hedonic emotions and motivational goals for consumption than the consumers who prefer time- or usage-based pay-per-use tariff. By “hedonizing” a service and creating a marketing plan aiming at reinforcing hedonic consumption goals of the target audience, companies could most likely impact on both emotions and the tariff-choice of their customers. The hedonic aspects of the service experience could be enhanced by serving sparkling wine or bundling for instance massage to the service. Furthermore, the customers targeting at hedonic consumption are most likely feeling happier and more satisfied, even though they would be paying surplus with respect to their actual usage of the service.

Differential pricing of the service could be implemented to address the needs and wants of the heterogenous consumers. Consumers are generally having extreme aversion, which means that the most affordable price is not a tempting option because of the possible regret for choosing the cheapest price instead of a slightly higher price with a perceived higher quality and the most expensive is not selected either in order to avoid the post-purchase disappointment. Companies can benefit from the extreme aversion by providing three different tariff options and pricing the middle one based on the researched maximum WTP of the consumers.

7.2 Suggestions for future research

Future research could examine the other perspectives on consumer decision making besides the emotional perspective and their relationship or interdependency with tariff-choice preferences in different service encounters. According to Vithala (2009), eight components of value have implications for pricing: financial, temporal, functional, experiential, emotional, social, trust and identification with the organization. The components of value

and their relationship with tariff-choice preferences and willingness to pay of the consumers is another suggestion for future research.

Moreover, further research could be conducted on investigating which positive and negative emotions have an impact on the willingness to pay and tariff-choice preferences of the consumers. Unlike this study, the future research could examine the emotions and purchase behavior of the consumers by focusing on the emotional attachment aspect of the emotions (Thomson et al., 2005) and their relationship with tariff-choice preferences and/or willingness to pay.

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Appendix A: Demographics of the clusters

Demographic		Cluster 1 (%)	Cluster 2 (%)	Cluster 3 (%)
Gender	Female	46,2	36,6	38,8
	Male	53,8	63,4	61,2
Age	0-20 years	2,3	4,9	3,5
	21-30 years	28,0	30,5	35,3
	31-40 years	35,6	20,7	27,1
	41-50 years	18,9	22,0	18,8
	51-60 years	9,1	13,4	10,6
	61+ years	6,1	8,5	4,7
Country of residence	Finland	46,2	47,6	37,7
	Sweden	5,3	7,3	7,1
	Germany	7,6	2,4	3,5
	Estonia	3,0	6,1	4,7
	Russia	3,0	2,4	5,9
	Other	34,9	34,1	41,2
Frequency of flying	Less than once a year	2,3	2,4	2,4
	1-2 times a year	28,0	18,3	27,1
	3-5 times a year	27,3	26,9	28,2
	More than 5 times a year	42,4	52,4	42,4
Purpose of flying most often	Business	44,7	57,3	41,2
	Leisure	55,3	42,7	58,9
Usage of lounge services	More than 75% of the time	6,8	7,3	1,2
	25-75% of the time	18,9	18,3	10,6
	Less than 25% of the time	30,3	39,0	37,7
	Never	43,9	35,4	50,6
Time before flight's take-off when entering Relaxation Area	Less than 1h	22,7	20,7	10,6
	1h-1h 50min	36,3	37,8	45,9
	2h-2h 50min	15,2	12,2	15,3
	3h-3h 50min	11,3	8,5	9,4
	More than 4h	12,1	19,5	18,9
	Not flying today	2,3	1,2	0,0

Appendix B: Emotions in the clusters

