# Revenue Management and Dynamic Pricing Impact on Estonian Ferry Travellers 

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The Gulf of Finland is crossed by 3 ferry operators - Tallink, Viking Line, Eckerö Line and Linda Line catamarans. These operators are competing on the route of Tallinn-HelsinkiTallinn which is the busiest route in the Baltic Sea.

Great competition between ferry companies in a small market across the Gulf of Finland is the reason why ferry companies have begun to implement revenue management and dynamic pricing.
The problem is the lack of information how revenue management and dynamic pricing strategy have impacted Estonian ferry travellers purchase habits as well as fairness perception and understandability of the dynamic pricing.

My aim is to study how familiar are customers with dynamic pricing, how it has impacted their purchase habits and what is their perception of fairness and understandability.

The theoretical framework focuses on two main topics.
One main topic explains the concept of revenue management, revenue management process and the concept of dynamic pricing.
Second main topic is about fairness, factors which are influencing fairness perception and issues to consider when practicing revenue management and dynamic pricing.

For my research I used quantitative research method. The research strategy is to use a quantitative questionnaire that helps to provide a wide range of responses.

## Keywords

Revenue Management, Dynamic Pricing, Fairness Perception, Purchase Habits, Pricing Understandability, Post-Purchase Behaviour, Customer Confusion

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## 1 Introduction

The Gulf of Finland is crossed by 3 ferry operators - Tallink, Viking Line, Eckerö Line and Linda Line catamarans. These operators are competing on the route of Tallinn-HelsinkiTallinn, which is the busiest route in the Baltic Sea, travelled by over 9 million people each year (Portoftallinn 2015). During the peak time in the summer Tallinn Helsinki-Tallinn route has 18 departures in a day with approximately 20000 passengers.

Great competition between ferry companies in a small market across the Gulf of Finland is the reason why ferry companies have begun to implement revenue management and dynamic pricing.

Fixed pricing have been common pricing strategy, however firms who are operating in competitive markets are not restricted to charge only one price for their service, but may charge different customers different prices. Thus companies are moving away from fixed pricing and employ dynamic pricing strategy. Dynamic pricing strategy means that prices are no longer fixed, but change according to time of purchase, trip' s origin - destination, time of day, day of week and vessel fulfilment, which means that the price offer what customer had today may not be same tomorrow.

Airline industry has implemented revenue management strategy since early 1970 and customers' seem to be used to the fact that they are charged different prices for same flight. Also they seem to be aware of that they will receive certain benefits, for example lower price if they accept certain restrictions.
Other firms, such as hotels, ferry operators, car-rental etc, have noticed the success of revenue management and have tried to adapt revenue management concept, but little is known how customers react to this strategy in other services such as in ferry industry.

Ferry industry like airline industry have similar characteristics and those characteristics are the ability to segment markets, perishable inventory, sell products in advance and fluctuate demand. In implementing the strategy, ferry operators need to maximize the ticket price, when the demand is high and to maximize the ticket sale, when the demand is low.

In this research, I am interested in the impact of dynamic pricing on Tallinn-HelsinkiTallinn ferry customers purchase habits as well as perception of price fairness and repurchase intentions when they are faced with revenue management and dynamic pricing strategy.

### 1.1 Problem Background

The problem is the lack of information how revenue management and dynamic pricing strategy have impacted Estonian ferry travellers purchase habits as well as fairness perception and understandability of the dynamic pricing.

Dynamic pricing has the potential to maximize revenues for the company as long as customers perceive dynamic pricing as a fair policy. It may damage the relationship between the firm and the customer due to the fact that price is the main concern of the customers and it is the key factor to unfairness issues.
Customers may react negatively if firms don' t inform customers on their webpage that prices change or don't give customers recommendations, when exactly starting prices or lower prices are available.

Dynamic pricing can lead to uncertainty and confusion among customers who are more sensitive to prices. In the case of ferry ticket, when a customer does not book a ticket in advance, the price is higher. This situation leads customers to perceive the price as being unclear and generates stress in purchase process despite even being a regular customer. Constant changes in prices result customers not knowing when, how and why prices change. Lack of price visibility and transparency can generate unfairness perception. In relation to this, the role of information may influence the fairness perception of dynamic pricing.

Price fairness is believed associated well with the customer response behaviours and with emotions. Customers may leave the exchange relationship, spread negative word-ofmouth or behave in a way what would damage the seller if they perceive policy as unfair (Xia 2004, 7).

### 1.2 Overall Aim and Objectives

The primary aim of this research is to investigate how Estonians who travel between Tallinn Helsinki Tallinn with ferries (Eckerö Line, Tallink, Linda Line, Viking Line) have been impacted by revenue management and dynamic pricing.
All these companies have started to practice dynamic pricing basically simultaneously few years ago, but no one have researched, how dynamic pricing strategy have impacted Estonian ferry travellers purchase habits and as well as fairness perception and understandability of the pricing.

My aim is to study how familiar are customers with dynamic pricing, how it has impacted their purchase habits and what is their perception of fairness and understandability. To fulfil this aim I have the following objectives:

- To research customers' familiarity of dynamic pricing and its impact on customers' purchase habits.
- To investigate the impact of dynamic pricing on customers' fairness perception and pricing understandability as well as post-purchase behaviour, when ferry company have and if not have informed customers on their webpage that prices change and if ferry company represents only starting prices on its webpage.
- To study the impact of dynamic pricing on customers' confusion.


### 1.3 Research Question

The research question of this thesis is:
How revenue management and dynamical pricing have impacted Estonian ferry passengers?

The research questions are divided to the following investigative questions which will help to answer the research question itself:

1. Customers' awareness of dynamic pricing and its impact on customers' purchase habits?
2. The impact of dynamic pricing on customers' fairness perception and pricing understandability as well as post-purchase behaviour, when ferry company have and if not have informed customers on their webpage that prices change and if ferry company represents only starting prices on its webpage.
3. The impact of dynamic pricing on customers' confusion?

### 1.4 Structure of the Thesis

The thesis is divided into 6 chapters:

Chapter 1 gives an overview what the thesis topic is about, what is the problem background as well as the aim and objectives of the thesis.

Chapter 2 introduces ferry operators, who are competing on the route of Tallinn-HelsinkiTallinn and their ticket pricing as well, how they inform customers about differential pricing on their webpage.

Chapter 3 focus on the theoretical framework of this thesis.
One main topic explains the concept of revenue management, revenue management process and the concept of dynamic pricing.

Second main topic is about fairness, factors which are influencing fairness perception and issues to consider, when practicing revenue management and dynamic pricing.

Chapter 4 describes research approach as well as research strategy, survey questions and data collection process. This chapter also explains the limitations of the research as well as reliability and validity.

Chapter 5 presents the results of the research.

Chapter 6 provides discussions and suggestions.

## 2 Tallinn-Helsinki-Tallinn Route

This chapter introduces ferry operators, who are competing on the route of Tallinn-Helsinki-Tallinn and their ticket pricing as well how they inform customers about differential pricing on their webpage.

### 2.1 Shipping Companies on Tallinn -Helsinki-Tallinn Route

Competition between Tallinn -Helsinki-Tallinn route is dense. There are four shipping companies that are the main players in the market: Viking Line, Tallink Silja Line, Eckerö Line and Linda Line.

## Viking Line

Viking Line is a public limited company and a market-leading brand in passenger traffic on the northern Baltic Sea, with the Finnish mainland, Sweden, the Åland Islands and the Baltic countries as its main markets (Viking Line 2015).

Viking Line revenues are generated in three business areas:

1. Travel Services - The Travel Services business area markets pleasure cruises, oneway passenger tickets and conference cruises, as well as travel and hotel packages
2. Shipboard Services - The Shipboard Services business area provides shopping, good food and entertainment in a pleasant setting
3. Cargo Services - The Cargo Services business area supplies speedy, regularly scheduled shipping and freight forwarding services (Viking Line 2009)

The M/S Viking XPRS provides service between Helsinki and Tallinn, with four departures per day. The vessel, which was built in 2008, offers a rapid crossing between the two capitals (Viking Line Annual Report 2014). M/S Viking XPRS concept brings together the best qualities of conventional car ferries and catamarans, since passengers will be offered a short 12 crossing time combined with a high standard of comfort and a modern range of shopping and dining choices.
On June 12, 2014 the M/S Gabriella and the M/S Mariella began providing an extra sailing between Helsinki and Tallinn, instead of docking in Helsinki for the day. Expanded schedule enabled Viking Line to offer its customers six daily departures and more car spaces on the Helsinki - Tallinn route during the summer (Viking Line Annual Report 2014).

## Travel Packages

Viking Line offers a variety of travel packages including the complete mini-cruises and overnight hotel packages, city-break trips, one-way tickets, car packages and day cruise with meal packages. Spa treatments, sightseeing and shopping are popular on-shore activities.

## Tallink Silja Line

Tallink Silja Line transport both passengers and cargo on the well developed EstoniaFinland route between Tallinn and Helsinki.

Tallink Silja Line have a strong position on this route and currently operate the cruise ferry Baltic Queen and the high speed ro-pax ferries Star and Superstar on this route.
The cruise ferry Baltic Queen currently departs once a day from both ports, having the evening departure from Helsinki. The voyage takes three and a half hours (Tallink 2015).

With the delivery of their new generation high speed ro-pax vessel Star in spring 2007 the new product Tallink Shuttle was launched. In spring 2008 the Shuttle service was added the second fast ferry - M/S Superstar and Tallink now provides 10-12 fast ferry departures per day. As Star and Superstar have a high ice class. The fast ferry service offered between Tallinn-Helsinki is available all year around. Passengers on these vessels include business travellers, day cruisers and passengers with overnight hotel packages (Tallink 2015).

## Travel Packages

Tallink offers a variety of travel packages including the complete mini-cruises and overnight hotel \& spa packages, city-break trips, high-speed ferry crossings, car packages (Tallink 2015).

## Eckerö Line

Eckerö Line is a Finnish shipping company owned by the Åland-based Rederiaktiebolaget Eckerö. Eckerö Line operates two ferries (one for passenger traffic, one for cargo) between Helsinki and Tallinn (Wikipedia 2015).

In 2012 Eckerö Line purchased the passenger ferry M/S Finlandia for the Helsinki-Tallinn route. M/S Finlandia departs twice a day from both ports, having the morning and
afternoon departure from Helsinki and mid-day and evening departure from Tallinn. The voyage takes two and a half hours.

## Travel Packages

Eckerö Line offers overnight hotel packages, one-way tickets and car packages.

## Linda Line Express

Lindaliini AS operates with high speed crafts on the route from Tallinn to Helsinki, representing the brand LindaLine Express beginning from 1997. Company's aim is to offer fast, comfortable and safe seaway from one city centre to another.
Lindaliini AS' sister company Linda Line Oy is located in Helsinki, offering service for customers coming from Helsinki (Linda Line 2015)

Linda Line operates on two high speed crafts "Karolin and Merilin". The voyage takes 1 hour and 40 minutes (Lindaline.ee). Linda Line service is heavy year-round, although in autumn there are fewer departures in the beginning of the week.

## Travel Packages and Travel Classes

Linda Line offers hotel packages, one-way tickets and day-cruises.
On Linda Line crafts there are three travel classes: Tourist class, Linda Comfort class and VIP-class.

### 2.2 Market Shares on Tallinn-Helsinki-Tallinn Route in Passenger Operations



Figure 1. Market Shares in Passenger Operations on Tallinn-Helsinki-Tallinn Route (Tallink 2015)

Based on the Figure 1 Viking Line's market share on Tallinn - Helsinki / Helsinki -Tallinn route is $25 \%$.

Viking Line's biggest competitor Tallink Silja Line has the largest market share 55\%.
Tallink operates on Tallinn Helsinki Tallinn route with three vessels, two of which are highspeed ro-pax vessels M/S Star and M/S Superstar and with one cruise vessel M/S Baltic Queen.

Eckerö Line, which has a market share of $17 \%$ is competing on the Helsinki Tallinn route with one vessel M/S Finlandia.

There is a small Estonian based company Linda Line, which operates with two catamarans, carrying only passengers. Its market share is marginal - $3 \%$, and its vessels are different than Viking Line, Tallink and Eckerö Line.

### 2.3 Overview about price changes information on website

## Viking Line

Viking Line advertise on their website starting prices and have informed customers that the starting prices are available on Sunday morning departure from Tallinn.

Viking Line has also brought out car-package price examples for various departures on their webpage and conditions, when package price applies.

Viking Line has informed customers on the website that prices on Tallinn-Helsinki route will depend on day of departure, time of departure and ship fulfilment.

Viking Line have not informed customers what departures are cheaper in addition to the Sunday morning departure from Tallinn and how early should reservation be made in advance in order to get a more favourable price.

## Tallink

Tallink has brought out on their website all one-way ticket prices for all departures. The customer has a good overview about company price list before booking.

According to price list customer have the information, which are favourable departure times and when a reservation should be made to have a favourable price.
Advertised car-package start price is easily possible to calculate by a customer himself as all prices are available on website and customer does not have to go to the reservation system and try to see himself/herself after making test reservations to all departures to find out what price is valid for which departure.

## Eckerö Line

Eckerö Line have informed customers on their webpage, when they are making car package, that prices change according to ship fulfilment, departure day and departure time. Also Eckerö Line have informed customers that it is cheaper to buy tickets well in advance.

## Linda Line Express

Linda Line Express have not informed customers on its webpage about dynamic pricing as well as what is the reason why there is big price difference, between different departures and days.
Also Linda Line have no information on their webpage for which departures applies advertised start price 19 Euro as well as which departures are less expensive. There is no information on Linda Line Express webpage that it is cheaper to make reservation well in advance.

### 2.4 Pricing of various shipping companies on Tallinn-Helsinki route

From the Table 1 below is the comparison of prices of various shipping companies if the reservation has been made 2-6 days before the departure and when reservation is made 2 weeks before the departure. Prices are given for comparison for how different is starting price from the actual price depending of the time, when a reservation is made and for what departure. These prices were available in September 2015 of ferry companies' webpages.

Linda Line advertises on its website that a one-way ticket price starts at 19 Euro. If to make a reservation two days in advance before the morning departure the price is 31.5 Euro and evening departure is 25.2 Euro. However, if the booking is made two weeks earlier for the same day and for the same departure the price difference is noticeable. When making a reservation 2 weeks before for a morning departure, the price is 22.5 Euro, which is 9 Euro cheaper than when making a reservation at the last minute.

If to compare Linda Line with Viking Line, then regardless of the time of reservation Viking Line Sunday evening departure is always at least 20 Euro more expensive than advertised 20 Euro starting price, as well as workday evening departure is evenly 35 Euro, regardless of booking time. Advertised starting price 20 Euro is valid for Sunday morning departure. Regardless of the time of reservation, customer can reserve a ticket with 20 Euro.

Eckerö Line is advertising on their website that one-way ticket starts at 19 Euro. A customer is able to book a ticket for 19 Euro for Wednesday afternoon departure, regardless of time of reservation. However one-way ticket price for evening departure is 29 Euro, when making a reservation 6 days before the departure, the price is 10 Euro more expen-
sive than advertised 19 Euro starting price and when making a reservation 2 week before the departure, the price is 24 Euro, which is 5 Euro cheaper than to book at the last minute.

The best overview about price information is available on Tallink webpage, where is a list of all departure prices. A customer has a good overview of when he/she should make a reservation and for what departure to get the best price.

Table 1. Comparison of prices of various shipping companies on Tallinn-Helsinki route

| Departure | Wednesday, <br> booking 2 <br> days before <br> the depar- <br> ture | Wednes- <br> day, book- <br> ing 2 <br> weeks be- <br> fore the <br> departure | Sunday, <br> booking 6 <br> days before <br> the depar- <br> ture | Sunday, <br> booking 2 <br> weeks be- <br> fore the <br> departure | Company |
| :--- | :---: | :---: | :---: | :---: | :--- |
| 07.40 | $(19 €) 31,5 €$ | $(19 €) 22,5$ <br> $€$ | - | - | Linda Line |
| 07.30 | $28 €$ | $19 €$ | $19 €$ | $22 €$ | Tallink |
| 08.00 | $(20 €) 25 €$ | $(20 €) 25 €$ | $(20 €) 20 €$ | $(20 €) 20 €$ | Viking Line |
| 10.30 | $28 €$ | $19 €$ | $36 €$ | $36 €$ | Tallink |
| 11.40 | - | - | $(19 €) 31,5 €$ | $(19 €) 22,5$ | Linda Line |
| 12.00 | $(19 €) 19 €$ | $(19 €) 19 €$ | $(19 €) 24 €$ | $(19 €) 27 €$ | Eckerö Line |
| 16.00 | - | - | $(19 €) 31,5 €$ | $(19 €) 31,5$ | Linda Line |
| 16.30 | $36 €$ | $36 €$ | $43 €$ | $43 €$ | Tallink |
| 16.30 | - | - | $(20 €) 44 €$ | $(20 €) 44 €$ | Viking Line |
| 18.00 | $(19 €) 25,2 €$ | $(19 €) 18 €$ | $(19 €) 31,5 €$ | $(19 €) 31,5$ | Linda Line |
| 18.00 | $(20 €) 35 €$ | $(20 €) 35 €$ | - | - | Viking Line |
| 18.45 | $(19 €) 24 €$ | $(19 €) 24 €$ | $(19 €) 29 €$ | $(19 €) 24 €$ | Eckerö Line |
| 19.30 | $32 €$ | $29 €$ | $39 €$ | $34 €$ | Tallink |

## 3 Theoretical Framework

This chapter focus on the theoretical framework of this thesis. One main topic explains the concept of revenue management, revenue management process and the concept of dynamic pricing.

Second main topic is about fairness, factors which are influencing fairness perception and issues to consider when practicing revenue management and dynamic pricing.

### 3.1 The Concept of Revenue Management

In the hospitality industry pricing is the key element in marketing strategy. As market place is heavily competitive it is crucial to set the right price. Price is the easiest marketing mix components to change and it directly affects revenue. Therefore, companies put a great effort into formulating their pricing strategies.

Fixed pricing have been common pricing strategy, however firms who are operating in competitive markets are not restricted to charge only one price for their service, but may charge different customers different prices. Thus companies are moving away from fixed pricing and employ revenue management.

Revenue management also known as yield management (the traditional term in the aviation industry) developed during late 1960s and early 1970 in aviation industry.

In the early 1970s, airlines began to offer fares to gain revenues from seats that otherwise would have been empty (Jerenz 2008, 7). With this strategy, airline was able to segment the market between leisure and business travellers by different willingness-to-pay to increase revenues.

The aim of revenue management is to maximize passenger revenue by providing the right service at the right time to the right customer at the right price. In practice revenue management means setting prices according to predict demand so that price-sensitive customers can purchase service at off-peak time at favourable price, while customers who are not price sensitive can purchase service at peak time (Yeoman 2001, 4).

Revenue management have two strategic levers: duration control and demand based pricing.
Demand based pricing is named as a „price discrimination" by economists.
It is a practice that segment demand according to price sensitivity, demand elasticity and willingness to pay. This method results that customers pay a higher price when the demand for the service is strong and lower price when the demand for the service is weak.

Revenue management has been widely implemented in the aviation industry, but nowadays it has been practiced also in hotel, rental car, cruise line, long distance passenger train and movie theatre industries. All these industries have few elements in common: relatively fixed capacity, ability to segment markets, perishable inventory, product sold in advance, fluctuating demand and low marginal sales costs/high marginal capacity change costs (Kimes 1989, 15). A major element in common to the industries which are implementing revenue management pricing strategy is the limited flexibility of the capacity.

Revenue management is suitable for capacity-constrained service firms. Capacity can be measured in both physical and non-physical units (Yeoman 2001, 4). For example, physical capacity may be measured by the number of rooms or seats. Non-physical capacity is usually consumption (time or duration of use) or transaction (time, when booking is made, in advance or in last minute).
Capacity is usually fixed over the short term, although some companies are able to change their capacity by adjusting the amount of time or space available (Yeoman 2001, 4).

### 3.2 Revenue Management Process

Revenue management works on the concepts of market segmentation, price discrimination as well as demand forecasting and optimization.


Fig. 1 CONCEPTS OF RM
Figure 2. Concepts of Revenue Management (The Decision Makers 2015)

### 3.2.1 Price Discrimination

Price discrimination is not a new concept. It is strategy providing an individual or some segments of consumer groups with different prices.

Price discrimination helps companies to increase revenues in two ways. Charging premium prices for customers who are less price sensitive and to extract greater revenue and at the same time charging discount prices for price sensitive customers. It helps to increase consumption of the service that balance the price reduction.

Time is also an important element in market segmentation. Demand is balanced by increasing prices during high demand and offering discounts during low demand. Types of discount vary among tourism industries. In airlines and ferry industries, discounts are offered for early bookings, including group reservations, as well as travel during low demand days and hours. For example, premium price may be fully or partially refundable and purchasable all the time in contrast to discount offerings, which are non-refundable and must be purchased a certain day in advance.

### 3.2.2 Market Segmentation

Market segmentation is a key element for successful revenue management practices. It is process of splitting customers in a market into different groups or segments. Different group of people differ on the basis of income, sex, age, education, price sensitivity, characteristics and similar needs which may require separate products. The goal of a segmentation analysis is to understand which customers are buying, how they buy, what they value, and how much they are willing to pay.

Phillips $(2005,15)$ have stated that "the key to the success of revenue management is the ability to segment customers between early-booking leisure passengers and late booking business passengers". For instance, in airline industry people are differentiated according to time of purchase. Business travellers who have higher willingness to pay would prefer to purchase a ticket at a higher price to be able to change the reservation or cancel it without penalty. It is because business travellers need to change their plans more frequently and they may not always be certain about their journeys.

Leisure travellers who are more sensitive to price prefer to book in advance to get better offerings and in general they are more flexible with travel time. Market segmentation helps to catch more leisure travellers who make reservations in advance to increase capacity. These discount offerings have usually more restrictions (to book and pay certain days in advance, cancellation fees).
In the industries which are implementing revenue management strategy, the demand for the services is generally uncertain and varies over time. Since the demands is uncertain demand forecast for each service is required to develop a capacity.

### 3.2.3 Demand Forecasting

Tourism companies have data information systems. It allows them to use historical sales database to collect, store and process demand data, in this way company is able to forecast future demand.
Customer demand varies by time of year, by week, day and time of day. Some companies have demand higher on weekends and during summer months or particular day of a week or particular time of the day. For a company it is difficult to make pricing and capacity decisions when demand varies over time and future demand is uncertain (Yeoman 2001, 5).
According to Yeoman $(2001,5)$ "Companies should be able to forecast time-related demand so that they can make effective pricing". In such case practicing revenue
management techniques allow to decrease revenue losses. For example, during low demand periods the number of discount prices increase and during peak periods, when demand is high discount tickets will be limited to increase firm profitability.

### 3.2.4 Optimization

Optimization helps to determine how a firm should respond to a market. The goal of optimization is to provide the right price,

- for every service
- for every customer segment
- through every channel as well as to update prices according to market conditions changes.

According to Phillips $(2005,29)$ successful optimization involves two components:

1. A consistent business process focused on pricing as a critical set of decisions
2. The software and analytical capabilities required to support the process

Above mentioned components allow company to optimize its service offerings, inventory levels and pricing with aim to achieve the highest revenue possible.

### 3.3 The Concept of Dynamic Pricing

Özer and Phillips $(2012,522)$ have stated that dynamic pricing belongs to the broad field of revenue management. According to C.L.Ng $(2009,106)$ dynamic pricing refers to prices that are updated in real time, as a response to changing buyer/demand information and conditions. This often happens in free markets where both buyers and sellers are able to respond to supply and demand conditions. As a result, firms can dynamically change their prices accordingly to customers' perceived values, which they know due to their database. By its nature airline, as well as ferry industry, long-distance railway, hotels etc have to deal with fixed capacity, uncertain demand, and perishable inventory. These factors challenge industries to minimize inventory, while maximize profit. One way to achieve this goal is dynamic pricing, which allows a firm to sell an identical service with different prices by customer willingness-to-pay.

Özer and Phillips $(2012,89)$ predicate that dynamic pricing focuses on how changes in the price of a single fare product impact demand, considering consumer preferences, will-ingness-to-pay, and competitive factors. Dynamic pricing is the reason, why passengers sitting next to each other in the same airplane or in ferry, may have paid different prices.

In the following table is a review of definitions of dynamic pricing by several authors.
Table 2. A review of definitions of dynamic pricing. (Jallat, Ancarani 2008, 467)

| Definition | Authors, <br> Reference |
| :--- | :--- |
| Dynamic pricing is a higher level of differential pricing allows further <br> customization by target customer and further enhances the traditional <br> segmented or differential pricing | Yelkur and <br> Neveda Da- <br> Costa (2001) |
| An attempt to synthesize a range of optimal prices from a small, static <br> set of prices in response to a shifting demand function | Gallego and <br> van Ryzin <br> $(1994)$ |
| Dynamic pricing is the new version of an old practice, price dis- <br> crimination. It uses a potential buyer's electronic fingerprint - his <br> record of previous purchases, his address, maybe other sites he <br> has visited - to size up how likely he is to balk if the price is <br> high. If the customer looks price-sensitive, he gets a bargain. If <br> he doesn't, he pays a premium" | Taylor (2002) |
| Selling goods at prices customized to the buyer's demand, the mar- <br> ket environment, and the seller's supply at the moment of the trans- <br> action | Dimicco etal. <br> (2003) |
| Dynamic pricing can be formally defined as the buying and sell- <br> ing of goods in markets where prices move quickly in response <br> to supply and demand fluctuations. Dynamic pricing could also <br> be defined as a pricing strategy in which prices change over <br> time, across consumers, or across product bundles | Jayaraman <br> and Baker <br> (2003) |

### 3.4 The Concept of Price Fairness

Firms that practise revenue management and dynamic pricing need to be careful however, because fairness issues are closely related to revenue management and dynamic pricing. Consumers' perception of price fairness affect reactions towards company and affect consumers' purchase intentions.

Fairness perception is whether or not customers accept an outcome and/or a transaction process to be reasonable and acceptable (Heo 2011, 244). Most of fairness issues are related with pricing because customers in general think about price when they start to purchase services and price helps customers to determine the customer satisfaction (Ahmat 2011,3 ). The factors which are influencing price fairness perception are familiarity, price knowledge and the principle of dual entitlement.

### 3.4.1 Familiarity

Important factor which is affecting customers' perception of fairness is familiarity about dynamic pricing and revenue management. In general, when customers' are aware of revenue management pricing strategy, they less perceive it to be unfair.

In 1994, Kimes study found that customers viewed revenue management as less fair for hotels than for airlines. It was because customers were somewhat familiar with revenue management practices in airline industry, but not in hotel industry. Customers did not understand in hotel industry, why they have to pay different price for a similar service (Kimes 1994, 29). Kimes repeated the similar survey in 2002 after the revenue management practices have become more common. It has been found that customers become more familiar with revenue management practices as they experience similar transaction over time, the unfairness perception between two industries declined (Kimes 2002, 29).

### 3.4.2 Price Knowledge

Aalto-Setala and Raijas $(2003,183)$ stated that price knowledge is the ability of the customer to keep prices in mind, since people store some sort of price information in their memory.

Frequent customers will have a strong interest in prices and can remember prices charged, which leads to a better price knowledge (Ahmat 2010, 4). In the same vein,
knowledgeable customers have a more developed cognitive which is why they can better interpret new information, encode and recall. Knowledge level about prices, costs, and profits can contribute to the perception of price unfairness and also influence consumers' purchase decisions (Ahmat 2010, 4).

### 3.4.3 The Principle of Dual Entitlement

The principle of dual entitlement holds that most customers believe that they are entitled to a reasonable price and that firms are entitled to a reasonable profit (Kimes 1994, 24). Buyer's reference prices are influenced by what they think they should be willing to pay in the purchase context, i.e. the context within which the price is offered. They are also influenced by what they think sellers should reasonably charge; in assessing fairness (C.L.Ng 2009, 58).

Customer believe that the value to the firm should equal the value to the customer. If that relationship become unbalanced by increasing the value to the firm or decreasing the value to the customer, the customer may view subsequent transaction as unfair (Kimes, 1994, 24). That is to say that firm is behaving unfairly in order to obtain a higher reference profit. In service transaction, the higher prices charged during busy periods may be seen as gouging and violate customer belief about dual entitlement if customers believe that companies are not providing more value for the higher peak-demand price (Kimes 2003, 127).

Providing justification about price changes can improve customers' perception of the fairness of revenue management. (Kimes 1994, 28) listed which practices are most acceptable and which are not. Such practices have the following characteristics:

## a) Role of Information

The information of how price has been determined has a significant effect on perception of pricing fairness and willing to purchase. According to Kimes (1994, 26) customers may view revenue management strategy fair if they are provided with full information and restrictions with discounted prices and if they get sufficient benefits to offset rate and reservation restrictions.

A firm can greatly influence the amount and type of information its customers receive, thereby influencing customers' what is acceptable Kimes (1994, 26). If the firms inform consumers of the different prices available depending on the time the reservation is made.

It offers differences between the observed and reference transactions and the customer may consider the transaction to be acceptable.

Kimes and Wirtz $(2002,2003)$ studied the fairness perception of revenue management practices in airline and restaurant industry. They researched acceptance level of information on the different pricing options, when it was made available by the hotel and if not. Customers view the resulting reference transaction as moderately acceptable, including reference price if hotel advertises that different prices will be charged based on when people make their reservations. Customers view unacceptable if firms change basis of the reference transaction without informing customers, customers have no way to assess the fair-market price (Kimes 2002, 29).

In 2005 Mattila and Choi studied the fairness perception of revenue management. They proposed three scenarios with different information: no information about the prices which are fixed through revenue management, limited information - in this case customers were
informed about the possibility of prices changing depending on the day of the week or the number of days in advance the reservation is made and full information. Results showed that, information influences the perception of revenue management, but giving information about rates and factors that influence rates may not be enough for customers to see revenue management as fair.
b) Restrictions when reservation can lead to discounts. The customer who accept restrictions (for example make a reservation in advance) can obtain a discount in a price. In this case benefits customer and the firms, as the customer pays lower price and firm ensures a sale of its service fair (Martinez 2011, 9783).
c) Product differentiation allows charging different price and customer perceived products to be different. Customer perceive revenue management to be fair when they know all the conditions they must meet in order to get discount and may accept revenue management as well as perceive it to be fair (Martinez 2011, 9783).

The practice when customers perceive revenue management to be unfair and unacceptable are:
a) Offering few benefits for accepting restrictions
b) Setting excessive restrictions to get discount. This leads customers to perceive that the transaction is benefiting the firm
c) Not informing customers of changes in reference transaction. As a result, customers do not know if prices are fair or unfair fair (Martinez 2011, 9783).

### 3.5 Issues to Consider

### 3.5.1 Consumer Uncertainty and Confusion

The use of revenue management pricing can lead to uncertainty and confusion among customers who are more sensitive to prices. As a result, customers may perceive prices to be less transparent and this generates stress and risk in perception due to the monetary or non monetary consequences that can derive fair (Martinez 2011, 9782). In the case of ferry ticket, when a customer does not book a ticket in advance, the price is higher. This situation leads customers to perceive the price as being unclear and usually generates stress in the purchase process, despite customers in this industry being regular customers. Constant changes in prices result in the customer not knowing when, how or why they change. Lack on price visibility and transparency can lead customers to perceive revenue management as unfair fair (Martinez 2011, 9783).

There are more elements that can generate confusion and perception of unfairness. One of them is the fact that customers get used to buying a ticket they consider cheap. As a result, they adapt their prices of reference to those prices, which means that when customer do not find the price that she or he expect; one perceive prices to be unfair fair (Martinez 2011, 9783). One example of this situation would be the case of cheaper departure, when customers who buy a ticket for a cheap departure think he/she will buy next ticket for the same price. However, when the price costumer pay does not meet with his/her expectations-price of reference -customer perception of price fairness is negatively fair (Martinez 2011, 9783).

### 3.5.2 Internal Reference Price

The terms „reference price" and „reference transaction" are often used to discuss fairness (Kimes 2002, 32). A reference price is an internal standard against which observed prices are compared. A reference transaction is how customers think a transaction should be conducted and a reference price is how much a customer think a service should cost. Reference prices come from market prices, prices most frequently paid, and what other customers say that they have paid for similar offering, as well as posted prices (Kimes, 2002).

To assess a transaction fairness, customers often relay on reference prices and it can affect customer reaction to revenue management pricing. According to Kimes $(2003,127)$ "If customers view peak-demand prices as higher than their reference prices, or if they view regular prices as higher than their reference prices due to frequent low-demand prices, then customers may view the prices charged as unfair." It is because during lowdemand periods discounts can reduce customers' reference price and make regular or premium rate seem unfair in the future, which means charging a higher price during highdemand periods may be viewed as unfair (Kimes 2003, 127).

The magnitude of the price range is affected by the lowest price and the highest price, and these endpoints with customers' reference price influence the judgements of prices.
In 2011 Heo conducted a study to examine what consumers' characteristics influence their fairness perception of revenue management practices in the hotel context. The study revealed a negative relationship between the price consciousness and fairness perceptions, suggesting that price conscious hotel guests tend to perceive hotels' revenue practices as more unfair. It is because many hotels competitively offer discounted rates to survive. Deeply discounted rates may reduce customers' reference price and increase price conscious customers' unfair perceptions of revenue management pricing (Heo, 2011, 249).

## Past prices

C.L.Ng $(2009,58)$ states that prices that the buyer remembers from the past exposures can influence their reference price. Past prices are more likely to be used in forming reference price for repetitive -buy items/ services. In particular, the price last paid is more likely to be recalled compared to previously observed prices that were not paid. This means that numerous small price increases for frequently purchased items are more acceptable compared to infrequent large increases, since buyers would raise their reference
prices after each small increase. When a buyer updates his expectations of company's past prices based on the prices what a company offers now may change buyer behaviour as a result. Customer who finds prices high today may be more likely to consider alternative sellers in the future.

## Competitor prices

Past prices are not only nor even the dominant influence on price perception. Competitor prices may serve as reference and that is why in competitive markets, prices are kept low. Attempts to go above the rate can stimulate customer feelings of unfairness (Bolton 2003, 477).

### 3.5.3 Rate Fences

Rate fences allow customers to self-segment on the basis of willingness to pay and can help companies effectively target lower prices at customers who are willing to accept certain restrictions on their purchase and consumption experience.
When a variety of prices are charged for essentially the same service, customers are likely to compare the price they paid with the prices that other customers pay (Kimes 2003, 128). Since customers will compare their prices with those paid by other customers as well as with prices they themselves had paid before, it is imperative that the reason for the varying price levels are easily understood by all customers (Kimes 2003, 128).

Use of rate fences makes differences for service offerings from a customer perspective, rendering revenue management pricing effective. When the degree of perceived similarity between transactions is high, customers have little differential information to justify price difference, and thus customers are likely to believe that they are entitled to equivalent prices and are likely to view price differences as unfair (Xia 2004, 4). When the degree of perceived similarity between transactions is low, customers' may perceive revenue management pricing to be fair. For this reason, firms need to improve customers' awareness that all transactions are not alike, so customers, in particular those who are price conscious, can distinguish the transaction.

### 3.6 Customer Behaviour Response

After any purchase the consumer examines whether the acquired product or service offered him the maximum satisfaction, or the purchase caused a lot of dissatisfaction. The post-purchase evaluation may have important consequences for a company.

A satisfied customer is very likely to stay a loyal and regular customer. If customer have not been satisfied with the purchase situation, then according to (Xia 2004, 7) there are
three actions to reflect customers ' response behaviour, which are no action, selfprotection, and revenge.
"No action" means that customer accept any price that could advantage them, also customers who feel disappointed, but who do not feel motivated to take any action or believe it is not worth to start to complain or switch another company.

Not to exaggerate, is so called silent type of customers, who can still spread negative word-of-mouth to show their disappointment (Ahmat 2010, 2005).
Customers may choose to complain, ask for refund, spread negative word-of-mouth or to leave the relationship, depending of the level of perceived fairness. The most popular social networking sites like Facebook, Twitter, Travellers Review etc, helps to complain globally.
The third customer response behaviour is revenge. Strong negative emotion will lead the customer to not just refuse to come back but at the same time to seek revenge to show their disappointment towards firm (Ahmat 2010, 15).

## 4 Methodology

This chapter introduces the empirical part of the study. It describes the research approach, research strategy, questionnaire design and survey questions as well as data collection process and samples.
This chapter gives also insight to the research limitations as well as reliability and validity.

### 4.1 Research Approach

The aim of this thesis is to investigate how Estonians, who travel between Tallinn Helsinki with ferries (Eckerö Line, Tallink, Linda Line, Viking Line) have been impacted by revenue management and dynamic pricing strategy.

How familiar are customers with this pricing strategy, how it has impacted their purchase habits and what is their perception of fairness and understandability of the pricing?
My aim is to provide an overview of the situation. To be able to complete this aim I used quantitative research method for my research.

An empirical study can be both quantitative and qualitative. The quantitative research strategy emphasizes the quantification of the data collection and analysis. The theory is preceded by an investigation, which in turn is the emphasis on the theory examination. The quantitative results of the study can be analytical, explanatory, and confirm.

Quantitative research is characterized by a large sample, the importance of statistical validity and the collection and analysis of the figures. The main question is "how much?".
Data will be collected by using methods that provide adequate statistical data: structured questionnaires, telephone interviews and tests.

For my research I preferred questionnaire for primary data collection, because:

1) It has low cost and it can be widely spread geographically
2) Respondents have time to think
3) Respondents, who are not easily approachable, can be reached
4) The results are easy to analyze

### 4.2 Research Strategy

## Questionnaire

The research strategy is to use a quantitative questionnaire that helps to provide a wide range of responses.

Questionnaire can be either structured or unstructured questionnaire. Structured questionnaires are those which there are definite, concrete and pre-determined questions.
For my research I used structured questionnaire. Questions were mostly closed so it would be easier to analyze the data and because respondents would have simple to answer to the questions.

The original questionnaire was in Estonian language as the research is aimed to Estonian passengers, among whom there are many people who do not speak English and to whom it is more comfortable and understandable to reply to questionnaire in their mother tongue.

The questions are presented with exactly the same wording and order to all respondents, it is because to ensure that all respondents reply to the same set of questions.

The form of questions may be either closed („yes" or „no") or open (free response). Structured questions may also have fixed alternative questions in which responses are limited to stated alternatives. In closed questions I used "yes" / "no" answers or selection of options. Also there were questions where respondents were required to assess the statement on a scale of totally agree / agree; disagree / totally disagree. In my research I used one open question, which respondents were asked to respond if they have any suggestions what ferry companies should change in their pricing practices.

To be successful, questionnaire should be simple and not too long. Questions should proceed from easy to more difficult ones.

### 4.3 Survey Questions

My survey questionnaire is divided into four segments and a total of 19 questions. With questions 1-6, I examined respondent general information (age, nationality, gender, education) and how often they travel with ferries and what is usually their reason of travel. I needed this information for segment the respondents and to bring comparisons between the various segments.

The second part of the questionnaire focuses on the customer awareness of dynamic pricing and if dynamic pricing strategy have had impact on respondents purchase habits and in what way.

Question 7 (Are you aware of that ferry companies change prices according to day of the week, time of departure, time of booking, and demand?)

This question will identify if respondents are aware of the dynamic pricing strategy and what are the difference of the awareness between different segments.

Question 8 (Have you purchase habits changed compared to the time when ferry companies had fixed prices?)
I've given answers options, where respondents can choose whether his / her purchase habits have changed completely, have changed to some extent, or purchase habits have not changed at all.
This question will explain whether and to what extent respondents purchase habits have changed and what are the differences between the different segments.

Question 9 (If your purchase habits have changed then in what way?)
I have given alternative response options for respondents and asked what is their level of agreement with each statement.
This question will examine; how dynamic pricing strategy has affected different segments purchase habits compared to the time when the prices were fixed.

The third part of the questionnaire focuses on the impact of dynamic pricing on customers' fairness perception and post-purchase process, when ferry company have and if not have informed customers that prices change.

Questions $13-18$ are scenarios.
With the scenario 1 I want to examine the perceived fairness and pricing understanding The scenario is about a person who bought a ticket two days ago and her/his acquaintance bought a ticket three weeks ago, the price difference is double between these two people. The ferry company has informed customers on their website that the ferry tickets prices can vary greatly depending on the season, the ferry fulfilment, the day of the departure, the time of the departure and advice customers to make bookings in advance for better prices.

Scenario 2 is practically same, but with the difference that ferry company have not informed customers on their website that the ferry tickets prices can vary greatly.

Scenario 3 is about starting prices on ferry company webpage. Customer sees only starting price, but if they start to book, the price difference can be three times more expensive as the starting price.

With these scenarios I would like to examine if the pricing policy is fair and understandable for the respondents and how they will behave in the future after the ticket purchase. Whether they will travel with the same ferry company in the future, suggest the ferry company to their friends and acquaintances and if they consider to spread negative word-ofmouth.

The fourth part of the questionnaire focuses on the impact of dynamic pricing on customers' confusion.

Question 19 (What is confusing for you about ferry companies pricing strategy?) The question will help to clarify whether and what is confusing about dynamic pricing for the respondents.

Question 20 (Do you have suggestions for the ferry companies what they should change in their pricing policy, so it would be more understandable for the customer?) This is an open question and respondents can comment what ferry companies should develop more so pricing policy would be more simple and easier to understand.

### 4.4 Sample

For my research I decided to analyze overall respondents results as well as different segments. I divided segments according to, how often they travel, because it would be interesting to know, how dynamic pricing have impacted people, who travel every month with people who travel only few times in a year. Segments were divided between respondents, who travel more than once a month between respondents, who travel less than 5 times in a year with ferries.

I also divided respondents according to travel reason, to identify, how dynamic pricing have affected work, leisure and business travellers purchase habits as well as perception of fairness as well as understandability of the pricing.

### 4.5 Data Collection Process

In the beginning I conducted test questionnaire, to be sure of questionnaire comprehensibility, unambiguousness and logic.
Test-questionnaire was introduced to friends, who gave a positive assessment and after the assessment real questionnaire was conducted.

A structured questionnaire was drawn entirely based on theoretical framework. It had to be logical, understandable and unambiguous.

The questionnaire was conducted in Webropol system and was distributed through the social media websites.

Questionnaire was open during the period of 17.7.2015-7.8.2015, exactly 3 weeks.
Link was included to all Facebooks' sites that are linked with ferry tickets and which members are travelling or have been travelling with ferries and who are interested in ferry ticket prices.

## Facebook Groups

1. Eestlased Soomes (Estonians in Finland) (2564 members)
2. FinEst (Eestlased Soomes) (FinEst - Estonians in Finland) (29, 737 members)
3. Laevapiletid iga ilmaga, soodsad pakkumised (Ferry tickets with every weather, discount offerings) (280 members)

## Facebook Pages

1. Laevapiletid Soodsalt - Fin,Est,Swe (Cheap ferry tickets - Fin,Est,Swe ) (4756 members)
2. Laevapiletid.ee (Ferry tickets.ee) (4995 members)
3. Laevapiletid soodsalt (Cheap ferry tickets ) (4840 members)

In addition to Facebook, I asked my friends and acquaintances who use the services of ferry companies to complete the questionnaire and shared a link to their friends and acquaintances who use the services of ferry companies.

The original questionnaire was in Estonian language as the research is aimed to Estonian passengers, among whom there are many people who do not speak English and to whom it is more comfortable and understandable to reply to questionnaire in their mother tongue.

The aim was to collect at least 110 responses, but the final result was 125 responses.

### 4.6 Limitations

There is a great amount of literature of the practice of revenue management in the hotel and aviation industry, but lack of theory about revenue management on customer fairness perception, behaviour and acceptance in the ferry industry. My theoretical framework is based on revenue management researches and theories related to hotel, restaurant, spa and aviation industry.

My research aims to find answers to the research questions mainly through personal findings in the primary research. It might be difficult to find result only by questionnaire and by 125 respondents opinions. It might be not enough to make serious conclusions.

### 4.7 Validity and Reliability

Before revealing the results, the quality of the results should be discussed. The quality is assessed through reliability and validity. "Research outcomes are of no value if the methods from which they are derived have no legitimacy. The methods must justify our confidence. Those who read research outcomes must be satisfied that the studies are valid, that they lead to truthful outcomes" (Newman 1998, 27).

### 4.7.1 Reliability

"Reliability refers to the consistency of the results and how sure readers can be of the replicability of the research. That is, similar results would be obtained if the research were conducted again in similar circumstances" (Woodrow 2014, 26).

Numbers of steps were taken to ensure the validity of this research:

- The questionnaire was divided into four sectors, starting with the easier and ending with tougher questions where respondents needed more to think about.
- Theories that are selected for this research, are clearly described and support the survey questions.
- The objective is to be sure that if the next investigator will follow the same procedures and theory and uses the same questionnaire, he/she will receive the same conclusions.


### 4.7.2 Validity

"Validity refers to the overall quality of the project. It reflects whether the research can be reasonably believed and to what extent generalisations can be made" (Woodrow 2014, 26).

In other words, validity means if the research can be taken seriously or not.

Numbers of steps were taken to ensure the validity of this research:

- Data was collected from reliable sources and from people who travel with ferries between Tallinn-Helsinki. In addition, they should have opinion about dynamic pricing and revenue management strategy.
- Survey questions were conducted based on the theoretical framework.
- The original questionnaire was in Estonian language as the research is aimed to Estonian passengers, among whom there are many people who do not speak English and to whom is more comfortable and understandable to reply to questionnaire in their mother tongue.

The second reason why survey was conducted in Estonian was to be sure that respondents could understand each question and so there would be no misunderstanding and dissent.

- Data was collected during 3 weeks, which is a short period of time and no major events can not happen what would change related topic.


## 5 Results

This chapter provides the results of the survey. It will display the background information of the respondents and results to the 3 investigative questions.

### 5.1 Respondent' s Profiles

The respondent's gender, age, nationality and education were asked in the survey. Here, it is going to show the results of each of them.

There were in total 125 respondents. Among 71.77 percent ( $\mathrm{n}=89$ ) were females compared to 28.23 percent $(n=35)$ of males.

With regards to age group, 44 percent ( $n=55$ ) were between 18 to 30 years, which was the highest number of respondents. 36 percent ( $n=45$ ) were in range of 31 to 45 years old, 20 percent ( $n=25$ ) were between 56 to 55 years and there was no respondent from the age group of 66+.

Among 124 respondents 99.19 percent ( $n=123$ ) were Estonians, while only 1 respondent was from other nationality than Finnish, Estonian or Russian.

From total of 125 respondents over half of respondents 52.8 percent $(\mathrm{n}=66)$ have higher education, while 26.4 percent ( $n=33$ ) have secondary education, 16.8 percent ( $n=21$ ) have vocational education and 4 percent ( $n=5$ ) have basic education (Table 3).

Table 3. Respondent's profiles

|  | Total |  |
| :--- | :--- | :--- |
|  | N | $100 \%$ |
| Gender | Responses count: 123 |  |
| Female | 35 | 28,46 |
| Age | 88 | 71,54 |
| $18-30$ | Responses count: 124 |  |
| $31-45$ | 54 | 43,55 |
| $56-55$ | 45 | 36,29 |
| $66+$ | 25 | 20,16 |
| Nationality | 0 | 0 |
| Estonian | Responses count: 123 |  |
| Finn | 122 | 99,19 |
| Russian | 0 | 0 |
| Other | 0 | 0 |
| Education | 1 | 0,81 |
| Basic education | Responses count: 124 |  |
| Secondary education | 5 | 4,03 |
| Vocational education | 33 | 26,61 |
| Higher education | 21 | 16,94 |

### 5.2 Frequency of Travel

Respondents were asked, how frequently they travel with ferry companies.
60.8 percent ( $n=76$ ) of the respondents use less that 5 times a year, 23.2 percent ( $n=29$ ) use 1-2 times per three months and 16 percent ( $n=20$ ) use more than once a month passenger ferry services.

### 5.3 Reason of Travel

77.05 percent ( $n=94$ ) of the respondent travel with ferry companies for holiday purposes, while 19.67 percent ( $n=24$ ) travel with ferry companies because of work and only 3.28 percent ( $n=4$ ) travel for business. If to compare respondents, who travel more than once a month with respondents, who travel less than 5 times a year with ferry companies, 68 percent ( $n=13$ ) of respondents, who travel more than once a month are traveling because of
work, 5 percent ( $n=1$ ) travel because of business and 26 percent ( $n=5$ ) travel because of holiday.
92 percent ( $n=68$ ) of the respondents who travel less than 5 times a year travel mostly because of holiday purposes, while 5 percent ( $n=4$ ) travel because of work and 3 percent $(\mathrm{n}=2)$ because of business.

### 5.4 Investigative question 1

## Customers' familiarity of dynamic pricing and its impact on customers' purchase habits.

## Customers' familiarity of dynamic pricing

Respondents were asked are they aware of that ferry companies change prices according to day of the week, time of departure, time of booking, and demand. 92.8 percent ( $n=116$ ) of the respondents replied that they are aware of the price changes, while 7.2 percent $(\mathrm{n}=9)$ answered that they are not aware that ferry companies change prices. There was no significant difference between answers among respondents, who travel more that once a month or 1-2 time per month and between respondents, who travel less that 5 times a year with ferry companies.

It can be concluded from the results that over 90 percent of respondents are aware of that ferry companies ticket prices change according to day of the week, time of departure, time of booking and demand.

## Purchase Habits

In relation to the question if their purchase habits have changed compared to the time when ferry companies had fixed prices. 46.77 percent ( $n=58$ ) of the respondents answered that their purchase habits have not changed, while 37.9 percent ( $n=47$ ) of respondents indicated that there have been some changes in their purchase habits.
15.32 percent ( $n=19$ ) of respondents have answered that their purchase habits have changed significantly (Table 4).

Table 4. Have you purchase habits changed compared to the time when ferry companies had fixed prices? (Overall respondents)

|  | $\mathbf{N}$ | $\%$ |
| :--- | :--- | :--- |
| Yes, purchase habits changed significantly | 19 | 15.32 |
| Yes, there were some changes in purchase habits | 47 | 37.9 |
| No, purchase habits have not changed | 58 | 46.77 |
| Total | $\mathbf{1 2 4}$ | $\mathbf{1 0 0}$ |

When to analyze the difference between respondents purchase habits compared with the time, when ferry companies had fixed prices then the different is significant among respondents, who travel more than once a month compared with respondents who travel less than 5 times a year with ferry companies.

55 percent ( $\mathrm{n}=11$ ) of respondents, who travel more than once a month with ferry companies have answered that there were some changes in their purchase habits and 25 percent ( $n=5$ ) answered that their purchase habits changed significantly. 20 percent ( $n=4$ ) of respondents have answered that their purchase habits have not changed. To the contrary 57 percent ( $n=43$ ) of the respondents who travel less than 5 times a year have answered that their purchase habits have not changed, 33 percent ( $n=25$ ) have answered that there were some changes in their purchase habits and only 9 percent ( $n=7$ ) have answered that their purchase habits changed significantly (Table 5).

Table 5. Have you purchase habits changed compared to the time when ferry companies had fixed prices? (Difference between respondents, who travel more than once a month and less than 5 times a year)

|  | More than <br> once a month |  | Less than 5 times a <br> year |  |
| :--- | :--- | :--- | :--- | :--- |
|  | N | $\%$ | $\mathbf{N}$ | $\%$ |
| Yes, purchase habits changed significantly | 5 | 25 | 7 | 9 |
| Yes, there were some changes in purchase <br> habits | 11 | 55 | 25 | 33 |
| No, purchase habits have not changed | 4 | 20 | 43 | 57 |
| Total | $\mathbf{2 0}$ | $\mathbf{1 0 0}$ | $\mathbf{7 5}$ | $\mathbf{1 0 0}$ |

If to compare respondents, who have different reason for travelling then we can find that almost for the half of holiday, work and business travellers purchase habits have not changed. Although 35 percent ( $n=33$ ) of respondents, who mostly travel because of holiday have agreed with the statement that there were some changes in purchase habits and 16 percent ( $n=15$ ) of respondents agreed that their purchase habits changed significantly.

50 percent ( $n=12$ ) of the respondents who travel because of work have agreed that there were some changes in their purchase habits and 50 percent ( $n=2$ ) of business travellers have agreed with the statement that their purchase habits changed significantly (Table 6).

Table 6. Have you purchase habits changed compared to the time when ferry companies had fixed prices? (Difference between work, business and leisure travellers)

|  | Work |  | Business |  | Leisure |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Yes, purchase habits changed <br> significantly | 1 | 4 | 2 | 50 | 15 | 16 |
| Yes, there were some changes in <br> purchase habits | 12 | 50 | 0 | 0 | 33 | 35 |
| No, purchase habits have not <br> changed | 11 | 46 | 2 | 50 | 45 | 48 |
| Total | $\mathbf{2 4}$ | $\mathbf{1 0 0}$ | $\mathbf{4}$ | $\mathbf{1 0 0}$ | $\mathbf{9 3}$ | $\mathbf{1 0 0}$ |

## The Impact of Dynamic Pricing on Customers Purchase Habits

Question 1: Compared with earlier times I compare different ferry companies' prices before I make a purchase.
88.04 percent ( $\mathrm{n}=81$ ) of respondents have answered that they totally agree or agree with the statement that compared with earlier times they compare different ferry companies' prices before purchase. 11.95 percent ( $n=11$ ) disagreed or totally disagreed (Table 7).

Table 7. Compared with earlier times I compare different ferry companies' prices before I make a purchase (Overall Respondents)

|  | Totally <br> agree | Agree | Disagree | Totally <br> Disagree | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{N}$ | 53 | 28 | 5 | 6 | $\mathbf{9 2}$ |
| $\%$ | 57.61 | 30.43 | 5.43 | 6,52 | $\mathbf{1 0 0}$ |

There was no significant difference between respondents, who travel more than once a month with ferry companies compared with respondents who travel less than 5 times a year. 82 percent ( $n=14$ ) of respondents totally agreed and 18 percent ( $n=3$ ) agreed that they compare different ferry companies' prices before purchase. There was no respondent who disagreed or totally disagreed.

86 percent ( $n=44$ ) of respondents who travel less than 5 times a year with ferry companies totally agreed or agreed that they compare different ferry companies' prices. 14 percent ( $\mathrm{n}=7$ ) disagreed or totally disagreed (Table 8).

Table 8. Compared with earlier times I compare different ferry companies' prices before I make a purchase (Difference between respondents, who travel more than once a month and less than 5 times a year)

|  | More than <br> once a month |  | Less than 5 times a <br> year |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 14 | 82 | 25 | 49 |
| Agree | 3 | 18 | 19 | 37 |
| Disagree | 0 | 0 | 3 | 6 |
| Totally Disagree | 0 | 0 | 4 | 8 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{5 1}$ | $\mathbf{1 0 0}$ |

According to the results 94 percent ( $n=16$ ) of work travellers and 100 percent ( $n=3$ ) of business travellers and 85 percent ( $n=59$ ) of leisure travellers compare different ferry companies' prices before ticket purchase (Table 9).

Table 9. Compared with earlier times I compare different ferry companies' prices before I make a purchase (Difference between work, leisure and business travellers)

|  | Work |  | Business |  | Leisure |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 14 | 82 | 1 | 33 | 36 | 52 |
| Agree | 2 | 12 | 2 | 67 | 23 | 33 |
| Disagree | 0 | 0 | 0 | 0 | 5 | 7 |
| Totally Disagree | 1 | 6 | 0 | 0 | 5 | 7 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{3}$ | $\mathbf{1 0 0}$ | $\mathbf{6 9}$ | $\mathbf{1 0 0}$ |

As we can see from the results more than 80 percent of overall respondents, as well as from the different segments agreed with the statement that they compare various ferry companies' prices before making the ticket purchase.

From the result can be concluded that for most of the respondents the purchase of ferry tickets is important matter and they contribute their time and energy for the comparison of alternatives.

Question 2: Compared with earlier times I compare ferry company different departure prices before I make a purchase.
87.91 percent ( $n=80$ ) of respondents totally agreed or agreed with the claim, while 12.08 percent ( $n=11$ ) disagreed or totally disagreed (Table 10).

Table 10. Compared with earlier times I compare ferry company different departure prices before I make a purchase. (Overall Response)

|  | Totally <br> agree | Agree | Disagree | Totally <br> Disagree | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{N}$ | 52 | 28 | 5 | 6 | $\mathbf{9 1}$ |
| $\%$ | 57.14 | 30.77 | 5.49 | 6,59 | $\mathbf{1 0 0}$ |

71 percent ( $n=12$ ) of respondents, who travel more than once a month totally agreed and 29 percent ( $n=5$ ) agreed that they compare ferry company different departure prices, before they make a purchase. There was no respondent who disagreed with the statement. Also people, who don't travel so often, only 5 or less time per year 84 percent ( $n=32$ ) totally agreed or agreed that they will compare ferry company different departure prices. While 16 percent ( $n=8$ ) disagreed or totally disagreed (Table 11).

Table 11. Compared with earlier times I compare ferry company different departure prices before I make a purchase (Difference between respondents, who travel more than once a month and less than 5 times a year)

|  | More than <br> once a month |  | Less than 5 times a <br> year |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 12 | 71 | 27 | 54 |
| Agree | 5 | 29 | 15 | 30 |
| Disagree | 0 | 0 | 4 | 8 |
| Totally Disagree | 0 | 0 | 4 | 8 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{5 0}$ | $\mathbf{1 0 0}$ |

89 percent ( $n=15$ ) of respondents, who travel because of work totally agreed or agreed that compared with earlier times they compare ferry company different departure prices before purchase. 89 percent ( $n=61$ ) of leisure travellers and 67 percent ( $n=2$ ) of respondents, who travel because of business agreed that they will compare ferry company different departure prices before purchase (Table 12).

Table 12. Compared with earlier times I compare ferry company different departure prices before I make a purchase (Difference between work, leisure and business travellers)

|  | Work |  | Business |  | Leisure |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 11 | 65 | 0 | 0 | 38 | 56 |
| Agree | 4 | 24 | 2 | 67 | 22 | 32 |
| Disagree | 0 | 0 | 1 | 33 | 4 | 6 |
| Totally Disagree | 2 | 12 | 0 | 0 | 4 | 9 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{3}$ | $\mathbf{1 0 0}$ | $\mathbf{6 9}$ | $\mathbf{1 0 0}$ |

From the result can be concluded that more than half of overall respondents, as well as over half of respondents from different segments agreed or totally agreed that they will compare same ferry company different departure prices before purchase.

Question 3: Compared with earlier times I make a reservation early in advance to have a low price.

81 percent ( $n=64$ ) of respondents totally agreed and or agreed, while 31.18 percent ( $n=29$ ) of respondents disagreed or totally disagreed with the statement (Table 13).

Table 13. Compared with earlier times I make a reservation early in advance to have a low price (Overall Respondents)

|  | Totally <br> agree | Agree | Disagree | Totally Disagree | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{N}$ | 31 | 33 | 21 | 8 | $\mathbf{9 3}$ |
| $\%$ | 33.33 | 35.48 | 22.58 | 8.6 | $\mathbf{1 0 0}$ |

87 percent ( $n=14$ ) of respondents, who travel more than once a month totally agreed or agreed that they make reservation early in advance to have a cheaper ticket price.
62 percent ( $n=32$ ) of respondents, who travel 5 or less time a year totally agreed or agreed that they make reservation early in advance to have a cheaper ticket price. While 39 percent ( $n=20$ ) disagreed or totally disagreed with the statement (Table 14).

Table 14. Compared with earlier times I make a reservation early in advance to have a low price (Difference between respondents, who travel more than once a month and less than 5 times a year)

|  | More than <br> once a month |  | Less than 5 times a <br> year |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 5 | 31 | 17 | 33 |
| Agree | 9 | 56 | 15 | 29 |
| Disagree | 1 | 6 | 14 | 27 |
| Totally Disagree | 1 | 6 | 6 | 12 |
| Total | $\mathbf{1 6}$ | $\mathbf{1 0 0}$ | $\mathbf{6 2}$ | $\mathbf{1 0 0}$ |

Results showed that while 69 percent ( $n=11$ ) of respondents, who travel because of work have agreed that compared with earlier times they make a reservation early in advance to have a low price, 66 percent ( $n=2$ ) of respondents, who travel because of business disagreed or totally disagreed with the claim. On the other hand, 60 percent ( $n=50$ ) of respondents, who travel because of leisure have agreed or totally agreed that they make reservations early for lower price and 30 percent ( $\mathrm{n}=21$ ) disagreed or totally disagreed with the statement (Table 15).

The previous results confirm the theory that leisure travellers prefer to make reservations early in advance, while for business travellers it is not so important to make a reservation early to have a lower price.

Table 15. Compared with earlier times I make a reservation early in advance to have a low price (Difference between work, leisure and business travellers)

|  | Work |  | Business |  | Leisure |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 3 | 19 | 0 | 0 | 27 | 38 |
| Agree | 8 | 50 | 1 | 33 | 23 | 32 |
| Disagree | 3 | 19 | 1 | 33 | 16 | 23 |
| Totally Disagree | 2 | 12 | 1 | 33 | 5 | 7 |
| Total | $\mathbf{1 6}$ | $\mathbf{1 0 0}$ | $\mathbf{3}$ | $\mathbf{1 0 0}$ | $\mathbf{7 1}$ | $\mathbf{1 0 0}$ |

Question 4: Compared with earlier times I rather travel with departure which is cheaper than which is more suitable with departure time.
67.74 percent ( $n=63$ ) of respondents totally agreed or agreed, while 32.26 percent ( $n=30$ ) disagreed or totally disagreed with the statement (Table 16).

Table 16. Compared with earlier times I rather travel with departure which is cheaper than which is more suitable with departure time (Overall Respondents)

|  | Totally <br> agree | Agree | Disagree | Totally <br> Disagree | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{N}$ | 31 | 32 | 20 | 10 | $\mathbf{9 3}$ |
| $\%$ | 33.33 | 34.41 | 21.51 | 10.75 | $\mathbf{1 0 0}$ |

If to compare respondents, who travel more than once a month with respondents who travel less than 5 times a year with ferry companies then we can see that 94 percent $(n=16)$ have agreed or totally agreed that they rather travel with cheaper departure than with better departure time. 66 percent ( $n=34$ ) percent of respondents, who travel less than 5 times a year agreed or totally agreed with the claim, while 34 percent ( $n=18$ ) disagreed or totally disagreed (Table 17).

Table 17. Compared with earlier times I rather travel with departure which is cheaper than which is more suitable with departure time (Difference between respondents, who travel more than once a month and less than 5 times a year)

|  | More than <br> once a month |  | Less than 5 times a <br> year |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 10 | 59 | 15 | 29 |
| Agree | 6 | 35 | 19 | 37 |
| Disagree | 0 | 0 | 10 | 19 |
| Totally Disagree | 1 | 6 | 8 | 15 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{5 2}$ | $\mathbf{1 0 0}$ |

76 percent ( $n=13$ ) of respondents, who travel because of work have totally agreed or agreed that they rather travel with departure witch is cheaper than witch is more suitable with departure time. 24 percent ( $n=4$ ) have totally disagreed or disagreed with the claim.
While 76 percent of work travellers rather travel with cheaper departure, then 66 percent $(n=2)$ of business travellers disagreed or totally disagreed with the statement. They rather choose to travel with the departure witch is more suitable for them. 33 percent ( $n=1$ ) of respondents, who travel because of business have totally agreed that he/she would rather travel with cheaper departure.

68 percent ( $n=57$ ) of respondents, who travel because of leisure have totally agreed or agreed that they choose to travel with cheaper departure, while 32 percent ( $n=23$ ) disagreed or totally disagreed with the statement (Table 18).

Table 18. Compared with earlier times I rather travel with departure which is cheaper than which is more suitable with departure time (Difference between work, leisure and business travellers)

|  | Work |  | Business |  | Leisure |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Totally Agree | 8 | 47 | 1 | 33 | 20 | 29 |
| Agree | 5 | 29 | 0 | 0 | 27 | 39 |
| Disagree | 2 | 12 | 1 | 33 | 17 | 24 |
| Totally Disagree | 2 | 12 | 1 | 33 | 6 | 9 |
| Total | $\mathbf{1 7}$ | $\mathbf{1 0 0}$ | $\mathbf{3}$ | $\mathbf{1 0 0}$ | $\mathbf{7 0}$ | $\mathbf{1 0 0}$ |

As we can see from the results respondents who travel more often are rather travelling with cheaper departure than with better departure times, compared with respondents, who are travelling less. Cheaper price than better departure time was also more important for people, who are travelling because of work and because of leisure. Respondents who are travelling because of business rather prefer better departure times than cheaper price.

### 5.5 Investigative question 2

The impact of dynamic pricing on customers' fairness perception and pricing understandability as well as post-purchase behaviour, when ferry company have and if not have informed customers on their webpage that prices change and represents only starting prices on its webpage.

Two scenarios were conducted, where respondents were asked to imagine a situation in which respondent would purchase a ticket two days before the departure and the ticket would cost 60 Euro. However respondent friend had bought a ticket three weeks before the departure and had paid 29 Euro for exactly the same ticket for the same departure.

In the first scenario a ferry company have informed customers in advance on their webpage that the ticket prices change greatly depending of the season, ferry fulfilment, day of the departure and time of the departure as well as it would be more affordable to make a reservation early in advance.

Respondents were asked to evaluate pricing policy fairness and understanding as well as how would they behave after the purchase in the situation where ferry company have and if not have informed customers in advance about revenue management and dynamic pricing on their webpage.
Would respondents travel with the same ferry company again in the future, would they recommend the same ferry company to their friends and acquaintances or would they give negative feedback to their friends / acquaintances as well as to social media?

In the third scenario I asked respondents to evaluate pricing policy fairness and understandability. For that I conducted a scenario, where on ferry company webpage are presented only one-way ticket price, starting at 15 Euro and when customer is starting to make a reservation the price is 50 Euro. Last time when customer travelled the ticket price was 23 Euro.

I asked respondents to evaluate fairness and understandability as well as how would they agree or disagree with statement such as would respondents buy a ticket with 50 Euro, because ferry company is worth that price; would respondents travel with the same ferry company again in the future; would they recommend the same ferry company to their friends and acquaintances or would they give negative feedback to their friends / acquaintances as well as to social media.
The detailed findings are discussed next.

## Fairness

## Scenario 1

In relation with my research this practice, when ferry companies inform customers on their homepage that they practice dynamic pricing was viewed as moderately fair, the results showed that 60 percent ( $n=72$ ) of overall respondents agreed that such a pricing policy would be fair (Table 19).

The results confirm the theory that if people are sufficiently informed about price changes then they will be more acceptable and see pricing as fair policy.

Table 19. Scenario 1. Fairness (Overall Respondents)

|  | Totally Agree |  | Agree |  | Disagree |  | Totally Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
|  | 25 | 20.83 | 47 | 39.17 | 29 | 24.17 | 19 | 15.83 | 120 | 100 |

40 percent of respondents $(\mathrm{n}=48)$ did not agree that such pricing policy is fair, even if ferry company informs clients on their webpage that prices change and ticket is cheaper when it is purchased early in advance (Table 19).

My findings imply that if ferry company have informed customers about dynamic pricing and have given them recommendations to make reservation early in advance to have a cheaper ticket prices it would still not be enough for some amount of customers to see the pricing as fair policy.

Results showed that 60.17 percent of respondents ( $n=68$ ), who are aware of that ferry companies implement revenue management and dynamic pricing evaluated the pricing strategy to be fair. 42.86 percent of respondents ( $n=3$ ), who were not aware of evaluated pricing to be not fair (Table 20).

The results confirm the theory that people, who are aware of dynamic pricing will see the pricing fairer as people who are not previously familiar with the pricing.

Table 20. Are you aware of that ferry companies change prices?

|  | Yes |  | No |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 1 3}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{7}$ |  |
|  | 20,35 | 23 | 28,57 | 2 |  |
| Agree | 39,82 | 45 | 28,57 | 2 |  |
| Disagree | 23,89 | 27 | 28,57 | 2 |  |
| Totally Disagree | 15,93 | 18 | 14,29 | 1 |  |

If to compare different segments, then there was a significant country effect between respondents, 78.95 percent of respondents ( $n=15$ ), who are travelling more than once a month, evaluated pricing not to be fair. On the other hand, respondent, who travel less than 5 times a year seem to accept more dynamical pricing and if ferry companies inform customers on their homepage about dynamical pricing, before they make a purchase, 69.87 percent ( $n=51$ ), who are travelling less than 5 times a year agreed that it is fair pricing (Table 21).

If to compare respondents, who have different reason for travelling, then 69.01 ( $\mathrm{n}=62$ ) percent of leisure travellers evaluated that it is fair pricing. Although 69.56 percent ( $n=16$ ) of respondents, who travel because of work and 50 percent ( $n=2$ ) of respondents who travel because of business evaluated pricing not to be fair (Table 21).

Table 21. Fairness (Scenario 1). Difference between segments

|  | Work |  | Business |  | Leisure |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{2 3}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{4}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{9 0}$ |
| Totally Agree | 13,04 | 3 | 25 | 1 | 23,33 | 21 |
| Agree | 17,39 | 4 | 25 | 1 | 45,56 | 41 |
| Disagree | 34,78 | 8 | 25 | 1 | 21,11 | 19 |
| Totally Disgree | 34,78 | 8 | 25 | 1 | 10 | 9 |


|  | More than once a <br> month |  | Less than 5 times a year |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 9}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{7 3}$ |
| Totally Agree | 0 | 0 | 26,03 | 19 |
| Agree | 21,05 | 4 | 43,84 | 32 |
| Disagree | 36,84 | 7 | 17,81 | 13 |
| Totally Disagree | 42,11 | 8 | 12,33 | 9 |

## Scenarium 2

The difference between the second scenario, when ferry company does not inform customers of changing prices and recommendations of when to book a ticket, with better price, 78.91 percent $(\mathrm{n}=90)$ answered that such pricing policy is not fair (Table 22).

Table 22. Fairness. Scenario 2. (Overall Respondents)

|  | Totally Ag- <br> ree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Fair | 8 | 7.02 | 16 | 14.04 | 26 | 22.81 | 64 | 56.14 | 114 | 100 |

Different segments result didn't differ much. When to analyze and compare different segments, then 80 percent ( $n=64$ ) of respondents, who are aware of that ferry companies implement dynamic pricing strategy didn't agree that such pricing is fair. 66 percent ( $n=6$ ) of respondents, who are not aware of dynamic pricing didn't agree that such pricing policy is fair (Table 23).

Table 23. Are you aware of that ferry companies change prices?

|  | Yes |  | No |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 0 5}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{9}$ |
| Totally Agree | 6,67 | 7 | 11,11 | 1 |
| Agree | 13,33 | 14 | 22,22 | 2 |
| Disagree | 22,86 | 24 | 22,22 | 2 |
| Totally Disagree | 57,14 | 60 | 44,44 | 4 |

82.35 percent ( $n=14$ ) of respondents who travel more than once a month, 78.57 ( $n=55$ ) who travel less than five times a year, 90 percent $(n=18)$ of work travellers, 100 percent ( $n=3$ ) business and 75 percent ( $n=66$ ) leisure travellers didn't agree that it is fair pricing policy (Table 24).

Table 24. Fairness (Scenario 2). Difference between segments

|  | More than once a month |  | Less than 5 times a year |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 7}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{7 0}$ |
|  | 0 | 0 | 8,57 | 6 |
|  | 17,65 | 3 | 12,86 | 9 |
| Disagree | 29,41 | 5 | 18,57 | 13 |
| Totally Disagree | 52,94 | 9 | 60 | 42 |


|  | Work |  | Leisure |  | Business |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{2 0}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{3}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{8 8}$ |
| Totally Agree | 5 | 1 | 0 | 0 | 7,95 | 7 |
| Agree | 5 | 1 | 0 | 0 | 17,05 | 15 |
| Disagree | 40 | 8 | 33,33 | 1 | 19,32 | 17 |
| Totally Disagree | 50 | 10 | 66,67 | 2 | 55,68 | 49 |

## Scenarium 3

Results revealed that 20 percent ( $n=24$ ) of respondents agreed that this kind of pricing policy is fair, when ferry companies advertise only starting prices on their webpage, while 80 percent ( $n=96$ ) of respondents didn't agree that it would be fair pricing policy (Table 33).

Table 33. Fairness (Scenario 3) (Overall Respondents)

|  | Totally Ag- <br> ree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Fair | 4 | 3.33 | 20 | 16.67 | 55 | 45.83 | 41 | 34.17 | 120 | 100 |

## Understandability

## Scenarium 1

To the scenario where ferry company inform customers in advance on their website that prices change depending on the day of the week, ship fulfilment and when it would be cheaper to book a ticket, 70.49 percent ( $n=86$ ) of respondents agreed, that such pricing policy is understandable for them, while 29.51 percent of respondents ( $n=36$ ) did not agree (Table 25).

Table 25. Scenarium 1. (Overall Respondents)

|  | Totally Agree |  | Agree |  | Disagree |  | Totally Disagree |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% |
| Understandable | 39 | 31.97 | 47 | 38.52 | 22 | 18.03 | 14 | 11.48 | 122 | 100 |

If to compare different segments, then there was a significant country effect between respondents. 75 percent ( $n=3$ ) business travellers and 76.92 percent of ( $n=70$ ) leisure travellers seem to agree more that dynamical pricing is understandable, when ferry companies inform customer about dynamical pricing on their homepage than respondents who travel because of work. 45.83 percent of respondents ( $n=11$ ), who travel because of work agreed that pricing policy is understandable, while 54.17 percent ( $n=13$ ) of work travellers didn't agree with the claim (Table 26).

If to compare respondents, who travel less than 5 times a year with respondents, who travel more than once a month with ferry companies then for the half of the respondents, 50 percent ( $n=10$ ), who travel more than once a month agreed that pricing policy is
understandable, while 50 percent ( $n=10$ ) disagreed. 75.67 percent ( $n=56$ ) of respondents, who travel less that 5 times a year agreed that pricing policy is understandable (Table 26).

Table 26. Understandability (Scenario 1) Difference between segments

|  | Work |  | Business |  | Leisure |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{2 4}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{4}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{9 1}$ |
| Totally Agree | 12,5 | 3 | 50 | 2 | 37,36 | 34 |
| Agree | 33,33 | 8 | 25 | 1 | 39,56 | 36 |
| Disagree | 16,67 | 4 | 25 | 1 | 18,68 | 17 |
| Totally Disagree | 37,5 | 9 | 0 | 0 | 4,4 | 4 |


|  | More than once a month |  | Less than 5 times a year |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{2 0}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{7 4}$ |
| Totally Agree | 5 | 1 | 41,89 | 31 |
| Agree | 45 | 9 | 33,78 | 25 |
| Disagree | 15 | 3 | 17,57 | 13 |
| Totally Disagree | 35 | 7 | 6,76 | 5 |

71.05 percent ( $\mathrm{n}=81$ ) of respondents, who are aware of that ferry companies implement dynamic pricing strategy agreed that such pricing is understandable. 62.5 percent ( $n=5$ ) of respondents, who are not aware of dynamic pricing also agree that such pricing policy is understandable, while 37.5 ( $\mathrm{n}=3$ ) disagreed (Table 27).

Table 27. Are you aware of that ferry companies change prices?

|  | Yes |  | No |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 1 4}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{8}$ |
| Totally Agree | 31,58 | 36 | 37,5 | 3 |
| Agree | 39,47 | 45 | 25 | 2 |
| Disagree | 19,3 | 22 | 0 | 0 |
| Totally disagree | 9,65 | 11 | 37,5 | 3 |

## Scenario 2

If ferry company do not inform customers in advance that the company is implementing dynamic pricing and prices change depending on ship fulfilment and day of the week, departure time and it would be more affordable to make a reservation early in advance, 69.64 percent ( $n=78$ ) of overall respondents didn't agree that this kind of pricing policy is understandable (Table 28).

Table 28. Scenarium 2. (Overall Respondents)

|  | Totally <br> Agree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
|  | 16 | 14.29 | 18 | 16.07 | 31 | 27.68 | 47 | 41.96 | 112 | 100 |

Different segments result didn't differ much. When to analyze and compare different segments, then 69.52 percent ( $n=73$ ), who are aware that ferry companies use dynamic pricing policy didn't agree as well as 71.43 percent ( $n=5$ ), who are not aware of dynamic pricing policy didn't agree that this pricing policy is understandable (Table 29).

Table 29. Are you aware of that ferry companies change prices? (Scenarium 2)

|  | Yes |  | No |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 0 5}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{7}$ |
| Totally Agree | 15,24 | 16 | 0 | 0 |
| Agree | 15,24 | 16 | 28,57 | 2 |
| Disagree | 27,62 | 29 | 28,57 | 2 |
| Totally Disagree | 41,9 | 44 | 42,86 | 3 |

72.22 percent ( $n=13$ ) of respondents, who travel more than once a month and 71.21 percent of respondents ( $n=47$ ), who travel less than 5 times a year, 72.73 percent ( $n=16$ ) of respondents, who travel because of work, $66.67(n=2)$ of business travellers and 67.86 ( $\mathrm{n}=57$ ) of leisure travellers didn't agree that pricing policy is understandable (Table 30).

Table 30. Understandability (Scenario 2) Difference between segments

|  | More than once a month |  | Less than $\mathbf{5}$ times a year |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{1 8}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{6 6}$ |
|  | 5,56 | 1 | 19,7 | 13 |
| Agree | 22,22 | 4 | 9,09 | 6 |
| Disagree | 38,89 | 7 | 24,24 | 16 |
| Totally Disagree | 33,33 | 6 | 46,97 | 31 |


|  | Work |  | Business |  | Leisure |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{1 0 0 \%}$ | $\mathbf{N = 2 2}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N = 3}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{N}=\mathbf{8 4}$ |
| Totally Agree | 9,09 | 2 | 33,33 | 1 | 15,48 | 13 |
| Agree | 18,18 | 4 | 0 | 0 | 16,67 | 14 |
| Disagree | 40,91 | 9 | 66,67 | 2 | 23,81 | 20 |
| Totally Disagree | 31,82 | 7 | 0 | 0 | 44,05 | 37 |

## Scenario 3

Situation that ferry companies advertise only starting prices leads customers to perceive the price as being unclear and usually generates stress in the purchase process. Constant changes in prices result that customer do not know when, how or why prices change.

The results showed that 32 percent $(n=40)$ of respondents assessed that it is understandable pricing policy, when on ferry company webpage are only starting prices, while 68 percent $(\mathrm{n}=85)$ of respondents disagreed (Table 34).

Table 34. Understandability (Scenario 3) (Overall Respondents)

|  | Totally <br> Agree |  |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |  |
| Understandable | 10 | 8 | 30 | 24 | 39 | 31.2 | 46 | 36.8 | 125 | 100 |  |

## Post-Purchase Behaviour

Consumer behaviour is an ongoing process: how a brand performed relative to the consumer's needs and expectations triggers what that consumer is likely to do on future purchase occasions (Roberts and Lilien, 1993).

After any purchase the consumer examines whether the acquired product or service offered him the maximum satisfaction, or the purchase caused a lot of dissatisfaction. The post-purchase evaluation may have important consequences for a company. A satisfied customer is very likely to stay a loyal and regular customer, although negative feelings produce dissatisfaction and reduce the level of repeat purchase. Research suggests that specific emotions that arise from purchase situations may be more relevant to buyers' complaint behaviours, word-of-mouth communication, switching, and repurchase than are satisfaction or dissatisfaction (Xia 2004, 7).

Thus, I wanted to examine the pricing unfairness perceptions, when ferry companies have informed customers about dynamical pricing and if not and how would respondents agree or disagree with post-purchase process statements.

## Scenario 1

In the first scenario, where ferry company notify customers in advance of their website that prices change and it would be cheaper to book a ticket in advance 76.23 percent ( $\mathrm{n}=93$ ) of overall respondents indicated that they would travel with the same company in the future again, 23.77 percent ( $n=29$ ) of respondents disagreed with the statement.
55.93 percent ( $n=66$ ) percent of the respondents would recommend the same ferry company to their friends and acquaintances, while $44.06(\mathrm{n}=52)$ would not recommend 51.72 percent of respondents ( $n=60$ ), would not share negative feedback to their friends and acquaintances as well as to social media, while 48.28 percent ( $n=56$ ) of respondents would share (Table 31).

Table 31. Post-Purchase Behaviour (Scenario 1) (Overall Respondents)

|  | Totally Ag- <br> ree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Will travel with <br> the same ferry <br> company in the <br> future | 33 | 27.05 | 60 | 49.18 | 26 | 21.31 | 3 | 2.46 | 122 | 100 |
| Recommend <br> ferry company | 20 | 16.95 | 46 | 38.98 | 38 | 32.2 | 14 | 11.86 | 118 | 100 |
| Give negative <br> word-of -mouth | 24 | 20.69 | 32 | 27.59 | 35 | 30.17 | 25 | 21.55 | 116 | 100 |

## Scenario 2

With the second scenario, when ferry company do not inform customers in advance on their webpage about changing prices, 58.77 percent ( $n=67$ ) didn't agree with the statement that they would use the same ferry company's services in the future, while 41.23 ( n $=47$ ) percent of the respondents would use (Table 32).
With the second scenario, when ferry company do not inform customers in advance on their webpage about changing prices 73.64 percent ( $\mathrm{n}=81$ ) would not recommend the ferry companies to their friends and acquaintances and 61.27 percent ( $n=67$ ) of respondents would share negative feedback to their friends and social media (Table 32).

Table 32. Post-Purchase Behaviour (Scenario 2) (Overall Respondents)

|  | Totally Agree |  | Agree |  | Disagree |  | Totally Disagree |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% |
| Will travel with the same ferry company in the future | 16 | 14.04 | 31 | 27.19 | 36 | 31.58 | 31 | 27.19 | 114 | 100 |
| Recommend ferry company | 6 | 5.45 | 23 | 20.91 | 44 | 40 | 37 | 33.64 | 110 | 100 |
| Give negative word-of mouth | 28 | 25.69 | 39 | 35.78 | 40 | 27.52 | 12 | 11.01 | 109 | 100 |

## Scenario 3

19.83 percent ( $n=24$ ) of respondent agreed that they would buy a ticket with 50 eur, while 80.17 percent ( $n=97$ ) of respondents didn't agree with the statement that they would buy a ticket with that price (Table 35).
36.97 ( $n=44$ ) percent of respondents agreed with the statement that they would travel with the same ferry company in the future, while 63.06 percent ( $n=75$ ) of respondents didn't agree with the statement (Table 35).

Only 22.22 percent ( $\mathrm{n}=26$ ) of respondents would recommend a ferry company to their friends and and acquaintances as 77.78 percent of respondents ( $n=91$ ) would not recommend (Table 35).
54.21 percent of respondents ( $\mathrm{n}=63$ ) agreed that they would share negative feedback about ferry company to their friends and acquaintances as well as to the social media, while 45.69 percent ( $n=53$ ) would not share. This 45.69 do not believe it is not worth to start to complain (Table 35).

Table 35. Post-Purchase Behaviour (Scenario 3). (Overall Respondents)

|  | Totally <br> Agree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ | $\mathbf{N}$ | $\%$ |
| Buy a ticket for <br> 50 eur | 3 | 2.48 | 21 | 17.35 | 65 | 53.72 | 32 | 26.45 | 121 | 100 |
| Will travel with <br> the same ferry <br> company in the <br> future | 7 | 5.88 | 37 | 31.09 | 57 | 47.9 | 18 | 15.13 | 119 | 100 |
| Recommend <br> ferry company | 3 | 2.56 | 23 | 19.66 | 62 | 52.99 | 29 | 24.79 | 117 | 100 |
| Give negative <br> word-of -mouth | 22 | 18.97 | 41 | 35.34 | 38 | 32.76 | 15 | 12.93 | 116 | 100 |

### 5.6 Investigate question 3

## The impact of dynamic pricing on customers' confusion

To the claim that it is confusing that ferry companies advertise only starting prices and no concrete prices on website, $87.4(\mathrm{n}=104)$ percent of the respondents indicated that they agree with the statement and only $12.6(n=15)$ percent of respondents disagreed (Table 36).

To the statement that it is unclear what day and departure customer should travel to have a low price, 84.61 ( $n=99$ ) percent of respondents agreed that it is unclear and only 15.38 percent ( $n=18$ ) of respondents disagreed with the statement (Table 36).

Results revealed that 87.4 ( $n=99$ ) percent of respondents agreed with the statement that it is unclear, how long in advance they should make a reservation to have a low price and only 12.6 ( $n=15$ ) percent of respondents disagreed with the statement (Table 36). customers receive, thereby influencing customers' what is acceptable.
75.43 ( $n=99$ ) percent of respondents agreed with the statement that it is confusing, why the same service have big price differences, $24.58(\mathrm{n}=29)$ percent of respondents disagreed with the statement (Table 36).

To summer up 36.11 ( $n=39$ ) percent of respondents agreed that dynamic pricing strategy is understandable to them, while $63.88(n=69)$ percent of respondents disagreed with the statement (Table 36).

Table 36. Dynamic Pricing Understandability (Overall Respondents)

|  | Totally <br> Agree |  | Agree |  | Disagree |  | Totally <br> Disagree |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% |
| Starting prices | 48 | 40.34 | 56 | 47.06 | 13 | 10.92 | 2 | 1.68 | 119 | 100 |
| It is unclear what day and departure I should travel to have a low price | 56 | 47.86 | 43 | 36.75 | 13 | 11.11 | 5 | 4.27 | 117 | 100 |
| Unclear, how long in advance I should make a reservation to have a low price | 58 | 48.74 | 46 | 38.66 | 13 | 10.92 | 2 | 1.68 | 119 | 100 |
| Confusing, why the same service has big price differences | 45 | 38.14 | 44 | 37.29 | 25 | 21.19 | 4 | 3.39 | 118 | 100 |
| Other | 4 | 8.51 | 10 | 21.28 | 13 | 27.66 | 20 | $\begin{aligned} & 42.5 \\ & 5 \end{aligned}$ | 47 | 100 |
| Dynamic pricing strategy is understandable | 5 | 4.63 | 34 | 31.48 | 48 | 44.44 | 21 | $\begin{aligned} & 19.4 \\ & 4 \end{aligned}$ | 108 | 100 |

## Do you have suggestions for the ferry companies what they should change in their pricing policy, so it would be more understandable for the customer?

This was an open question and respondents were asked to comment what ferry companies should develop more so pricing policy would be more simple and easier to understand.

Results revealed that respondents are confused about starting prices and they don' t quite understand how price formulates:
"Starting prices should stop. If there is a price, then it is the final price."
" Write clearly exactly the minimum price what would be valid for specific day. Not 10-15 euros starting prices on first page, but when you start to book a ticket then price is 30 euro one way."
"Concrete prices."
" From offers should disappear. In generally with "from" price it is not possible to buy a ticket and it is not understandable when the "from" price is valid."

Also respondents suggested that ferry companies should inform customers more and give advice, when exactly favourable prices are available and when exactly it is possible to book a ticket with lower price:
"For example, to bring out on the website the week days, when usually tickets are purchased more and in that case ticket prices will be more likely higher, so that people know to book as early as possible if they want to travel that day."
" More days and departure prices should be displayed."
"Advice on ferry companies' webpages, how to get favourable tickets and special offers."
"Provide the information, when tickets will be affordable to book (how many days in advance and what time). Also inform about special offers."

Respondents also suggested that there should be fixed maximum price as the service is same, but there will be no more value for the higher price.
"In addition to starting price ferry company should also fix so-called maximum price. Also more favourable travel times should be available (e.g. days of the week, and / or departure times)."
" It is understandable that firms seek to make a profit, but why, for example, day cruise may be purchased for 5 euros, while one-way will cost 50 euros. Money are skinned from simple passengers, while travel conditions (no free available seats, you have to walk around the entire voyage or sit on the floor)."

## 6. Discussion and Conclusions

This chapter discuss the survey results. The structure of this chapter is designed based on the tree investigative questions. The discussion is supported by the theoretical framework from Chapter 3.

The research question of this thesis is how dynamical pricing have impacted Estonian ferry passengers?
The primary aim of this research was to investigate, how familiar are Estonian customers, who travel between Tallinn Helsinki Tallinn with ferries with dynamic pricing strategy and how it has impacted their decision making process and purchase habits as well as what is their perception of fairness and understandability of the pricing.

The study investigated customers' familiarity of dynamic pricing and its impact on customers' purchase habits as well as the impact of dynamic pricing on customers' fairness perception and post-purchase behaviour, when ferry company have and if not have informed customers on their homepage that prices change as well as the impact of dynamic pricing on customers' confusion and perception of fairness if ferry company represents only starting prices on its homepage.

The study compared overall respondents results as well as different segments. In my study I compared segments such as respondents, who travel more than once a month with ferry companies with respondents, who travel less than 5 times a year as well as I compared leisure, work and business travellers with each other.

### 6.1. Investigative question 1

## Customers' awareness of dynamic pricing and its impact on customers' purchase habits?

## Customers' familiarity of dynamic pricing

One of the research objectives was to understand, how aware of are Estonian ferry travellers with dynamic pricing.
Based on the findings over 90 percent of respondents are aware of that ferry companies ticket prices change according to day of the week, time of departure, time of booking and demand, there were no significant difference between answers among different segments.

It can be concluded from the results that over 90 percent of respondents are aware of that ferry companies ticket prices change according to day of the week, time of departure, time of booking and demand.

## Purchase Habits

My objective was also to research; how dynamic pricing have affected Estonian ferry travellers purchase habits.

I analyzed the overall respondents results as well as how dynamic pricing have affected different segments, especially people, who are travelling more than once a month and because of work.

In relation to the question if consumers' purchase habits have changed compared to the time when ferry companies had fixed prices then results showed that 46 percent of overall respondents have stated that their purchase habits have not changed since ferry companies have started to implement dynamic pricing strategy. However, 37 percent of respondents have had to change their purchase habits to some extent and 15 percent of respondents have changed their purchase habits completely.

It can be concluded that less than half amount of respondents purchase habits have not been affected my dynamic pricing, however 52 percent of respondents have changed their purchase habits.

After analyzing the various segments then 80 percent who use the services of ferry companies more than once a month have had to change their purchase habits to some extent or completely. However, 57 percent who use the services of ferry companies less than five times a year, have left their ticket purchasing habits remain the same and 43 percent of respondents have changed their purchase habits to some extent or completely.
Over 50 percent of business, work and leisure travellers have had their purchase habits changed either completely or to some extent.

Based on the findings dynamic pricing strategy have had more impact on people purchase habits, who are travelling more often. Half of business, work and leisure travellers have changed their purchase habits to some extent or completely, while less than other half still follow their old purchase habits and dynamic pricing have not impacted their purchase habits.

## Dynamic Pricing Impact on Consumer Purchase Habits

The following section will describe how dynamic pricing have impacted customers' purchase habits compared with times, when ferry companies had fixed prices.

If a purchase is important or expensive a lot of data is collected from various sources. Through a cognitive process where to buy a service customer weight the positive and negative aspects of each alternative.

According to findings 80 percent of overall respondents as well as 80 percent from different segments agreed with the statement that compared with time, when ferry companies had fixed prices they now, after ferry industry have started to implement dynamic pricing, compare various ferry companies' prices before making the ticket purchase.
87 percent of overall respondents as well as over 60 percent of respondents from different segments agreed that compared with earlier times they compare same ferry company different departure prices before ticket purchase.

For most of the respondents the purchase of ferry tickets is important matter and they contribute their time and energy for the comparison of alternatives whether searching for the best price among different ferry companies or best offer from company's various departures.

The results showed that 68 percent of overall ferry travellers and who travel mostly because of work ( 69 percent) and leisure ( 60 percent) prefer to purchase tickets early in advance to have favourable ticket price, while 66 percent of business travellers disagreed that it is important to make a reservation early to have a lower price.

67 percent of overall respondents as well as 76 percent of work and 68 percent of leisure travellers agreed or totally agreed that compared with earlier times they compare same ferry company different departure prices before purchase, while 66 percent of business travellers disagreed or totally disagreed with the statement. They rather choose to travel with the departure witch is more suitable for them.

According to the results, respondents who travel more than once a month are rather travelling with cheaper departure than with better departure time compared with respondents who are travelling less than 5 times a year. Respondents who are travelling because of business rather prefer better departure times than cheaper prices.

Based on findings work travelers, who travel more than once a month are more price sensitive and prefer to make reservations early in advance or rather travel with cheaper departure than with better departure time. Usually they are aware of, when they can travel and can better organize with what departure and company to travel with.

The results confirmed the theory that leisure travelers prefer to make reservations early in advance or rather travel with cheaper departure than with better departure time, because in general they are more sensitive to price, while for business travelers the price is not so important. Mostly because company pays for their ticket.

### 6.2 Investigative question 2

The impact of dynamic pricing on customers' fairness perception and pricing understandability as well as post-purchase behaviour, when ferry company have and if not have informed customers on their webpage that prices change and represents only starting prices on its webpage.

## Fairness Perception

## Fairness Perception if ferry company have informed customers on webpage about dynamic pricing.

According to Kimes $(1994,26)$ customers may view revenue management strategy fair if they are provided with full information. If the firms inform customers of the different prices available depending on the time the reservation is made. It offers differences between the observed and reference and the customer may consider the transaction to be acceptable.

My results confirmed the theory that if people are sufficiently informed about price changes and when favourable prices would be available then customers will be more acceptable and see pricing as fair policy.

60 percent of overall respondents agreed that such a pricing policy would be fair if ferry companies inform customers on their homepage that they practice dynamic pricing.

For example, Tallink has brought out on their website all one-way ticket prices for all departures. The customer has a good overview about company price list before booking. According to price list customer have the information, which are favourable departure times and when a reservation should be made to have a favourable price.

Advertised car-package start price is easily possible to calculate by a customer himself as all prices are available on website and customer does not have to go to the reservation system and try to see himself/herself after making test reservations to all departures to find out what price is valid for which departure.

Although according to my findings if ferry company have informed customers about dynamic pricing and have given them recommendations to make reservation early in advance to have a cheaper ticket prices it would still not be enough for some amount of customers to see the pricing as fair policy. In relation to this study 40 percent of respondents disagreed that it would be fair pricing policy.

According to results leisure travellers and people, who travel less than 5 times a year accept dynamic pricing and see it as fair pricing, when ferry company have informed customers before on webpage about price changes than people who travel because of work or business and who travel more than once a month. Frequent travellers tend to perceive dynamic pricing as more unfair.

## Fairness Perception if ferry company have not informed customers on webpage about dynamic pricing.

Second scenario was same except that information about pricing and conditions customers must meet in order to get favourable price was not made available for the customers. Respondents rated this practice as unfair. Opinions about unfairness did not vary among different segments as over 60 percent felt it is unfair that ferry companies don't inform customers on their homepage about favourable departure times and when ticket should be bought to have lower price.

For example, Linda Line Express have not informed customers on its webpage about dynamic pricing as well as what is the reason why there is big price difference between different departures and days.

Viking Line has informed customers on the website that prices on Tallinn-Helsinki route will depend on day of departure, time of departure and ship fulfilment. Unfortunately, Viking Line have not informed customers what departures are cheaper in addition to the Sunday morning departure from Tallinn and how early should reservation be made in advance in order to get a more favourable price.

Results confirm the theory that lack on price visibility and transparency can lead customers to perceive dynamic pricing as unfair. Customer perceive revenue management to be fair when they know all the conditions they must meet in order to get discount and may accept revenue management as well as perceive it to be fair (Martinez 2011, 9783).

In relation with the scenario 2 respondents evaluated the price difference as unfair, because they didn't have information about conditions they must meet in order to have a lower price. Which is why they were confused about big price difference between their ticket and their acquaintance ticket as tickets were exactly the same, but with difference when the ticket was purchased.

Product differentiation allows charging different price and customer perceived products to be different. When the degree of perceived similarity between transactions is high, customers have little differential information to justify price difference, and thus customers are likely to believe that they are entitled to equivalent prices and are likely to view price differences as unfair (Xia 2004, 4).

When the degree of perceived similarity between transactions is low, customers' may perceive revenue management pricing to be fair. For this reason, firms need to improve customers' awareness that all transactions are not alike, so customers, in particular those who are price conscious, can distinguish the transaction.

## Fairness Perception if ferry company represents only starting prices on its homepage.

In the third scenario respondents were asked the perception of fairness if ferry company represents only starting prices on its homepage. Based on the results 80 percent of respondents consider it unfair, when ferry companies advertise only starting prices on their homepage, because of lack price visibility people don't know what is the actual price as starting price may be several time cheaper as actual price in the end.

In the third scenario, where ticket price was 50 Euro, compared with 15 Euro starting price, it exceeded most respondents reference price and 50 Euro was considered as too expensive for a ferry ticket, over 80 percent of people rated it as unfair pricing and they would have not bought a ticket with that price.

For example, Viking Line advertise on their website starting prices and have informed customers that the starting prices are available on Sunday morning departure from Tallinn.
on the other hand, Linda Line have no information on their webpage for which departures applies advertised starting price 19 Euro. If to make a reservation for Linda Line two days in advance before the morning departure the price is 31.5 Euro and evening departure is 25.2 Euro.

The principle of dual entitlement holds that most customers believe that they are entitled to a reasonable price and that firms are entitled to a reasonable profit (Kimes 1994, 24). Buyer's reference prices are influenced by what they think they should be willing to pay in the purchase context, i.e. the context within which the price is offered. They are also influenced by what they think sellers should reasonably charge; in assessing fairness (C.L.Ng 2009, 58).
"Customers generally view justified price differences (or differences they perceive to be justified) as fair, but they view unjustified price increases to be unfair. If customers believe that the transaction is different from the reference transaction only in price, they may believe that the firm is receiving more than its reference profit and is behaving unfairly" (Kimes1994, 24).

## The impact of dynamic pricing on customers' confusion?

According to results more than half of overall respondents agreed that pricing policy is understandable, when ferry companies inform customers on their webpage that the ticket prices change greatly depending of the season, ferry fulfilment, day of the departure and time of the departure as well as it would be more affordable to make a reservation early in advance.

Significant country effect was between respondents who travel because of work and who travel because of leisure or business. Business and leisure travellers agreed strongly that pricing policy is understandable, when ferry companies inform customer in advance of their webpage that prices change and it is more affordable to make reservation in advance than work travellers, who didn't agree with the statement.

If ferry company do not inform customers in advance that the company is implementing dynamic pricing and prices change depending on ship fulfilment and day of the week, departure time and it would be more affordable to make a reservation early in advance, strongly over half of overall amount of respondents as well as from different segments didn't agree that in that case dynamic pricing would be understandable for them.

Situation that ferry companies advertise only starting prices leads customers to perceive the price as being unclear and usually generates stress in the purchase process. Constant changes in prices result that customer do not know when, how or why prices change. 68 percent of respondents disagreed with the statement that dynamic pricing would be understandable for them, when ferry company advertise starting prices.

According to the different scenario results, information plays an important role for customers to understand the dynamic pricing and to consider it to be fair. "A firm can greatly influence the amount and type of information its customers receive, thereby influencing customers' notions of what is acceptable" (Kimes 1994, 24).

## Post-Purchase Behaviour

## Post-Purchase Behaviour if ferry company have informed customers on webpage about dynamic pricing.

According to the results, when ferry company have previously informed customers on their homepage about dynamic pricing and which factors affect prices to change was considered as moderately fair. As a result, they would consider to share less negative feedback to their friends or social media as well as they rather use same ferry company services in the future.

## Post-Purchase Behaviour if ferry company have not informed customers on webpage about dynamic pricing.

With the second scenario, when ferry company do not inform customers in advance on their webpage about dynamic pricing then according to results respondent overall response was that it is not fair.
As most of respondents evaluated second scenario, when ferry company would not inform customers as unfair, it affected negatively their post-purchase behaviour.
Negative feelings produce dissatisfaction and reduce the level of repeat purchase (Bojanic 2010, 107). Consumer starts with searching, obtaining information and evaluating other options for future buying decision. Also customers may choose to complain, ask for refund, spread negative word-of-mouth or leave the relationship, depending of the level of perceived fairness (Xia 2004, 8)

Based on the results over 50 percent of respondents would not use same ferry company services in the future, over 70 percent would not recommend ferry company to their
friends and acquaintances and over 60 percent of respondents would share negative feedback to their friends and social media.

## Post-Purchase Behaviour if ferry company represents only starting prices ot its homepage.

With the third scenario 63 percent of respondents would not travel with the same ferry company in the future and 77 percent of respondents would not recommend the same ferry company to their friends/ acquaintances. Although 54 percent of respondents would share negative feedback after purchase to friends/ acquaintances as well as to social media, 45 percent of respondents would not share, it may be because they believe it is not worth to start to complain.

### 6.3 Investigative question 3

## The impact of dynamic pricing on customers' confusion?

The aim of revenue management is to maximize passenger revenue by providing the right service at the right time to the right customer at the right price. In practice revenue management means setting prices according to predict demand so that price-sensitive customers can purchase service at off-peak time at favourable price, while customers who are not price sensitive can purchase service at peak time (Yeoman 2001, 4), but the information of how price has been determined has a significant effect on perception of pricing. According to the theory lack on price visibility and transparency can lead customers to perceive revenue management as unclear.

Results revealed that 36 percent of respondents agreed that dynamic pricing strategy is understandable to them, while 63 percent of respondents disagreed with the statement

From the results can be concluded that respondents are confused about starting prices, which are presented on ferry companies webpage. 87 percent of the respondents indicated that they agree with the claim that it is confusing that ferry companies advertise only starting prices and no concrete prices on their website.

People are also confused about, when exactly lower prices are available and when they should make reservation to have a ticket with affordable price. 84 percent of respondents
agreed that it is unclear what day and departure customer should travel to have a low price.

According to the results 87 percent of respondents agreed with the statement that it is unclear, how long in advance they should make a reservation to have a low price.

If the firms inform consumers of the different prices available depending on the time the reservation is made. It offers differences between the observed and reference transactions and the customer may consider the transaction to be acceptable.

75 percent of respondents agreed with the statement that it is confusing, why the same service have big price differences.

When a variety of prices are charged for essentially the same service, customers are likely to compare the price they paid in the past or with the prices that other customers pay (Kimes 2003, 128). Since customers will compare their prices with other customers as well as with prices they themselves had paid before, it is imperative that the reason for the varying price levels are easily understood by all customers (Kimes 2003, 128). A firm can greatly influence the amount and type of information its customers receive, thereby influencing customers' what is acceptable (Kimes 1994, 26).

According to respondent suggestions ferry companies should write clearly exactly the minimum price what would be valid for specific day. For example, bring out on the website the week days, when usually tickets are purchased more so that people know to book as early as possible if they want to travel that day.

Respondents have also suggested ferry companies to give advice on webpages, how to get favourable tickets. As well as provide the information, when tickets will be affordable to book (how many days in advance and what time). Also inform about special offers, as well as more favourable travel times should be available (e.g. days of the week, and / or departure times).

Respondents suggested that more days and departure prices should be displayed and in addition to starting price ferry company should also fix so-called maximum price.

## 7 Suggestions

Firms that practise revenue management and dynamic pricing need to be careful, because fairness issues are closely related to revenue management and dynamic pricing. Consumers' perception of price fairness affect reactions towards company and affect consumers' purchase intentions.

Important factor which is affecting customers' perception of fairness is familiarity about dynamic pricing and revenue management. In general, when customers' are aware of revenue management pricing strategy, they less perceive it to be unfair.
Results revealed that over 90 percent of respondents are aware of that ferry companies are practicing dynamic pricing. Unfortunately based on the results 63 percent of respondents disagreed with the statement that dynamic pricing is understandable for them.

Over 87 percent of the respondents indicated that it is confusing that ferry companies advertise only starting prices and no concrete prices on their website.
People are also confused about, when exactly lower prices are available and when they should make reservation to have a ticket with affordable price as well as what day and departure customer should travel to have a low price.
Respondents were also confused about how long in advance they should make a reservation to have a low price and why the same service have big price differences?

## Understanding Customer Reaction to Pricing

Revenue management and dynamic pricing will increase ferry companies profit, but firms should also consider the impact of pricing to customer understanding.
My results revealed that many customers don' t quite understand dynamic pricing and how price formulates as well as why same service have different price.
I suggest ferry companies to better inform and educate customers about dynamic pricing by using their homepage and give more suggestions and advice so customers, especially people who are more price sensitive won't feel confused and injustice.

## Price Information and Advice

According to respondent suggestions ferry companies should give advice on webpages, how to get favourable tickets. As well as provide the information, when tickets will be affordable to book (how many days in advance and what time). Also inform about special offers, as well as more favourable travel times should be available (e.g. days of the week, and / or departure times).

Respondents suggested that more days and departure prices should be displayed and in addition to starting price ferry company should also fix so-called maximum price.

## Raise Prices Without Upsetting Customers

- Raise the overall Reference Price: If the reference price is higher then customers may see other prices as relatively low compared with reference price.
- Attach Benefits and Restrictions with Price: If ferry companies include some benefits (for example better place for a car on the ferry or breakfast etc) with higher price and attach restrictions (such as when booking should be made) they can differentiate not only the price, but also the product. The key is that benefits have to have high value for the customers so the restrictions and price would seem reasonable.


## Perceived Differences

Product differentiation allows charging different price and customer perceived products to be different. When a variety of prices are charged for essentially the same service, customers are likely to compare the price they paid with the prices that other customers pay (Kimes 2003, 128). Since customers will compare their prices with those paid by other customers as well as with prices they themselves had paid before, it is imperative that the reason for the varying price levels are easily understood by all customers (Kimes 2003, 128).

Rate fences allow customers to self-segment on the basis of willingness to pay and can help companies effectively target lower prices at customers who are willing to accept certain restrictions on their purchase and consumption experience (Kimes 2003, 128).
Price differences can either be presented as a premium or discount to regular prices. As customers may see discounts fairer (Enz 2010, 510).

## Market Segmentation

Study the characteristics of various market segments and design a product that appeals to that market segment and to price it accordingly.

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## Appendices

## Appendix 1. Questionnaire in Estonian

## Dünaamilised hinnad reisilaevanduses

## Lugupeetud vastaja!

Minu nimi on Küllike Vendla ja ma õpin Soomes, Haaga-Helia Rakenduskõrgkooli magistrantuuris.
Minu magistritöö uurib, millist mõju on avaldanud dünaamiline hinnastamine eesti reisijate ostukäitumisele, õigluse tunnetamisele ja hinnastamise arusaamisele.

Muutuvate hindade poliitika tähendab, et hinnad muutuvad vastavalt hooajale, laeva täituvusele, nädalapäevale, laeva väljumisajale ning kliendi broneerimise ajale.

Küsimustik on osa magistritööst ning on täiesti anonüümne
Vastamiseks kuluv aeg on umbes 10 minutit
Suur aitäh kõigile, kes leiavad aega vastata!

## 1. Teie sugu?

O Mees
O Naine

## 2. Teie Vanus

O 18-30
O 31-45
O 46-65
O 66 +

## 3. Teie kodakondsus?

O Eesti
O Vene
O Soome
O Muu

## 4. Teie haridustase?

O Põhihariuds
O Keskharidus
O Kutseharidus
O Kõrgharidus

## 6. Mis on üldjuhul Teie reisipõhjus?

O Töö
O Äri
O Puhkus

## 5. Kui tihti Te sõidate reisilaevaga?

O Rohkem kui 1 kord kuus
O 1-2 korda kolme kuu jooksul
O Vähem kui 5 korda aastas
6. Kas Te olete teadlik, et laevafirmadel muutuvad hinnad sõltualt nädalapäevast, väljumisajast, nõudlusest ja broneerimise ajast?

Jah Ei
Olen teadlik
0 O
8. Kas Teie ostuharjumused on muutunud võrreldes ajaga kui laevafirmadel olid kindlate hindadega hinnakirjad?

O Jah, muutusid tunduvalt
O Jah, toimusid mõned muutused
O Harjumused jäid samaks
9. Kui Teie harjumused on muutunud, siis mil viisil?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem <br> ei ole <br> nõus | Ei ole <br> nõus |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Varasemast sagedamini võrdlen erinevate laevafir- <br> made hindu enne ostmist | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Varasemast sagedamini võrdlen laevafirma erineva- <br> te väljumiste hindu enne ostmist | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Varasemast sagedamini broneerin pikemalt ette, et <br> saada soodsamat hinda <br> Varasemast sagedamini sõidan pigem väljumisega, | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| mis on soodsam kuivõrd, mis on ajaliselt sobivam <br> Muu | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## 10. Kui teadlik Te üldiselt olete laevafirmade piletite hindadest?

Tean täpselt palju pilet tavaliselt maksabTean enam-vähem hindade suurusjärke$\bigcirc$ Ei ole teadlik hindade suurusjärkudest

## 11. Kas Te võrdlete pileti ostmisel hinda:

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei ole <br> nõus | Ei ole <br> nõus |
| :--- | :---: | :---: | :---: | ---: |
| Oma eelnevalt makstud pileti <br> hindadega | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Oma sõbra / tuttava makstud pileti <br> hindadega | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Teiste laevafirmade pileti <br> hindadega | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Ei <br> võrdle | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

12. Mis saab Teile määravaks pileti ostmisel?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei ole <br> nõ̃us | Ei ole <br> nõus |
| :--- | :---: | :---: | :---: | :---: |
| Hind | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Laeva väljumis- <br> ajad | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Klienditeenindus <br> Klubikaardi olema- <br> solu | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Harjumus osta pileteid samalt <br> laevafirmalt | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Broneeringu muutmise <br> võimalus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Sooduspakkumised <br> Eelnev kogemus laeva- <br> firmaga | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

13. Kujutlege, et Teie tuttav ostis pileti 3 nädalat tagasi ja maksis pileti eest 29 eurot, Teie ostsite pileti 2 päeva enne reisi ja pileti hind oli 60 eurot.
Laevafirma on kodulehel teavitanud kliente, et laevapiletite hinnad võivad väga erineda sõltuvalt hooajast, laeva täituvusest, väljumisest ja nädalapäevast ning et soodsama pileti saab pikalt ette broneerides.
Kas selline hinnapoliitika on Teie meelest?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei ole <br> nõus | Ei ole <br> nõus |
| :--- | :---: | :---: | :---: | :---: |
| Aus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Arusaadav | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## 14. Lähtuvalt eelnevast stsenaariumist kui tõenäoline on, et Te:

Täiesti Pigem Pigem ei Ei ole

Sõidate ka järgmine kord sama firmaga

Soovitate laevafirmat oma sõpradele ja tuttavatele

Jagaksite negatiivset tagasisidet oma sõpradele / tuttavatele / sotsiaalmeediale
15. Kujutlege, et Teie tuttav ostis pileti 3 nädalat tagasi ja maksis pileti eest 29 eurot, Teie ostsite pileti 2 päeva enne reisi ja pileti hind oli 60 eurot.
Laevafirma ei ole kodulehel teavitanud kliente, et laevapiletite hinnad võivad väga erineda sõltuvalt hooajast, laeva täituvusest, väljumisest ja nädalapäevast ning soodsama pileti saab pikalt ette broneerides.
Kas selline hinnapoliitika on Teie meelest?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei ole <br> nõus | Ei ole <br> nõus |
| :--- | :---: | :---: | :---: | :---: |
| Aus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Arusaadav | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## 16. Lähtuvalt eelnevast stsenaariumist kui tõenäoline on, et Te:

| Täiesti | Pigem | Pigem ei Ei ole <br> nõus |
| :--- | :--- | :--- |
| nõus | ole nõus nõus |  |

Sõidate ka järgmine kord sama firmaga

Soovitate laevafirmat oma sõpradele ja tuttavatele

Jagaksite negatiivset tagasisidet oma sõpradele / tuttavatele / sotsiaalmeediale
17. Kujutlege, et Teil on vaja reisida laevaga Soome pühapäevase Iõunase väljumisega. Te uurite hindu kodulehel, kus on hind alates 15 eurot.
Kui Te broneerima hakkate on pileti hind 50 eurot. Eelmisel korral kui Te sõitsite maksis Teie pilet 23 eurot.
Kas selline hinnapoliitika on Teie meelest?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei ole Ei ole <br> nõus | nõus |
| :--- | :---: | :---: | :---: | :---: |
| Aus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Arusaadav | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## 18. Lähtuvalt eelnevast stsenaariumist kui tõenäoline on, et Te :

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei Ei ole <br> ole nõus <br> nõus |  |
| :--- | :---: | :---: | :---: | :---: |
| Sõidate ka järgmine kord <br> sama firmaga | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Soovitate laevafirmat oma sõpradele <br> ja tuttavatele | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jagaksite negatiivset tagasisidet oma sõprade- <br> le / tuttavatele / sotsiaalmeediale | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

19. Mis teeb Teile laevafirmade hinnapoliitika juures segadust tekitavaks?

|  | Täiesti <br> nõus | Pigem <br> nõus | Pigem ei Ei ole <br> ole nõus <br> nõus |  |
| :--- | :---: | :---: | :---: | :---: |
| Alates hinnad, konkreetset <br> hinda ei ole | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Teadmatus broneerimisel, mis väljumistel või <br> päevadel peaks sõitma, et saaks soodsa hinna | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Teadmatus, millal tuleks ette broneerida, et <br> saaks soodsa hinna | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Arusaamatus, miks samal teenusel on suur <br> hinnaerinevus | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Muu | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Hinnapolititika on <br> arusaadav | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## 20. Kas Teil on ettepanekuid, mida laevafirmad võiks muuta, et hinnapoliitika oleks kliendile arusaadavam?

Tänan vastamise eest!

## Appendix 2. Questionnaire in English

## Dynamical Pricing in Ferry Industry

## Dear Respondent!

My name is Küllike Vendla and I am a master student in Haaga-Helia University of Applied Sciences.

My research studies, how Estonians, who travel between Tallinn-Helsinki with ferries have been affected by dynamic pricing and how it has impacted Estonian ferry travellers purchase habits as well as fairness perception and understandability of the pricing.

Dynamic pricing strategy means that prices are no longer fixed, but change according to time of purchase, trip's origin - destination, time of day, day of week and vessel fulfilment.

Survey is one part of my Master's thesis.
It takes approximately 15 minutes to complete the survey.
I am very thankful to all, who have time to complete the survey!

1. Your gender?

O Male
O Female
2. Your Age?

O 18-30
O 31-45
O 46-65
O 66 +
3. Your Nationality?

O Estonian
O Russian
O Finnish
O Other
4. Your Education?

O Basic education
O Secondary education
O Vocational education
O Higher education
5. What is usually the reason of your travel?

O Work
O Business
O Leisure

## 6. How often do you use passenger ferry services?

O More than once a month
O 1-2 times per three-months
O Less than 5 times a year
7. Are you aware of that ferry companies change prices according to day of the week, time of departure, time of booking, and demand?
I am aware
Yes No
0 O

## 8. Have you purchase habits changed compared to the time when ferry companies had fixed prices?

O Yes, purchase habits changed significantly
O Yes, there were some changes in purchase habits
O Yes, there were some changes in purchase habits
9. If you purchase habits have changed then in what way?
Totally
Agree

Compared with earlier times I compare different ferry companies' prices before I make a purchase

Compared with earlier times I compare ferry company different departure prices before I make a purchase

Compared with earlier times I make a reservation early in advance to have a low price
Compared with earlier times I rather travel with departure which is cheaper than which is more suitable with departure time

Other
10. In general how aware are you of ferry companies' prices?

O I know exactly how much ticket price usually is
Ol know more-or-less ticket prices magnitudes
O I don't know ticket prices magnitudes

## 11. Do you compare prices before your ferry ticket purchase:

|  | Totally <br> Agree | Agree | Totally <br> Disagree <br> Disagree |  |
| :--- | :---: | :---: | :---: | :---: |
| With your past ticket <br> prices | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| With your friend/acquaintance past paid <br> ticket prices | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| With other ferry companies ticket <br> prices <br> You don't com- <br> pare | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

12. What is the determining factor if you buy a ticket?

|  | Totally <br> Agree | Agree Disagree | Totally |
| :--- | :---: | :---: | :---: | :---: |
| Disagree |  |  |  |

13. Imagine that your acquaintance bought a ticket three weeks ago and paid 29 euros for a ticket. You purchased your ticket two days before the trip, and the ticket price was 60 euros.
The ferry company has informed customers on their website that the ferry tickets prices can vary greatly depending on the season, the ferry fulfilment, the day of the departure, the time of the departure and advice customers to make bookings in advance for better prices.
What to you think, is this kind of pricing strategy fair and understandable for you?

| Totalliy | Agree DisagreeTotally <br> Disagree Agree |
| :--- | :--- |

Fair
O
O
$\bigcirc$
$\bigcirc$

Understandable
○

○
14. Due to the above scenario, what is the likelihood that you:

## Totally Agree Agree Disagree Totally $\begin{aligned} & \text { Tisagree }\end{aligned}$

Will travel with the same ferry company in the future

Recommend ferry company to your friends and acquaintance

Give negative word-of -mouth to your friends and acquaintance
15. Imagine that your acquaintance bought a ticket three weeks ago and paid 29 euros for a ticket. You purchased your ticket two days before the trip, and the ticket price was 60 euros.
The ferry company has not informed customers on their website that the ferry tickets prices can vary greatly depending on the season, the ferry fulfilment, the day of the departure, the time of the departure and advice customers to make bookings in advance for better prices.
What to you think is this kind of pricing strategy fair and understandable for you?

|  | Totalliy <br> Agree | Agree Disagree |  | Totally <br> Disagree |
| :--- | :---: | :---: | :---: | :---: |
| Fair | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Understandable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

16. Due to the above scenario, what is the likelihood that you:
Totally

Agree Agree Disagree | Totally |
| :--- |
| Disagree |

Will travel with the same ferry O company in the future

Recommend ferry company to your friends and acquaintance

Give negative word-of -mouth to your friends and acquaintance
17. Imagine that you need to travel to Finland on Sunday afternoon with ferry.

You search the prices on ferry company website, but there is only starting prices with 15 Euro.
You make a reservation and the price is 50 Euro. Last time you travelled, your ticket price was 23 Euro.
What to you think is this kind of pricing strategy fair and understandable for you.

|  | Totalliy <br> Agree | Agree Disagree |  | Totally <br> Disagree |
| :--- | :---: | :---: | :---: | :---: |
| Fair | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Understandable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

18. Due to the above scenario, what is the likelihood that you:
Totally

Agree $\quad$ Agree Disagree | Totally |
| :--- |
| Disagree |

Buy a ticket because ferry company service is worth of 50 Euro

Will travel with the same ferry company in the future

Recommend ferry company to your friends and acquaintance

Give negative word-of -mouth to your friends and acquaintance
19. What is confusing for you about ferry companies pricing strategy?
Totally

Agree Agree Disagree | Totally |
| :--- |
| Disagree |

Starting prices, no concrete prices on website

When I make a reservation it is unclear what day and departure I should travel to have a low price

Unclear, how long in advance I should make a reservation to have a low price

Confusing, why the same service has big price differences

Other
Dynamic pricing strategy is understandable
20. Do you have suggestions for the ferry companies what they should change in their pricing policy, so it would be more understandable for the customer?

Thank You for answering!

## Appendix 3. Respondents Suggestions for Ferry Companies

- Kehtestada ühtsed hinnad, olenemata päevadest ja kellaaegadest. Kuna teenus
on igalajal ühesugune.
- 1. Hind alates tuleks Iõpetada. Kui on hind, siis ongi SEE hind.

2. Igasugused juurdehindlused, hilinemised jne, tuleb korvata kliendile, sest ka minu aeg on raha.
3. Klient jaägu ka laevades "kuningaks", kui firma soovib kindlat klientuuri.
4. Tallink lõpetagu oma boonuste jama, sest nt. 1000 boonuspunkti on $=0$-ga :-(

- Sõidan tavaliselt Tallink laevadega. Väga rahulolematu, aga teiste laevade piletisüsteem arusaamatum, väljumisajad ja sõidu pikkus ei sobi.

Laevafirmades klient ei ole kuningas.

- Kirjutagu minimaalne piletihind täpselt sellise summana, nagu reaalselt konkreetsel kuupäeval või nädalapäeval maksma peab, mitte esilehel on alates 10-15 eurost, kuid piletit broneerides on üle 30 euro üks ots.
- Konkreetsed hinnad.
- tavalised asjad... olge arusaadavam, kujundage oma reklaammaterjali ja kodulehte
lihtsamaks jne
- Arusaadav, et tahetakse kasumit teenida, aga miks näiteks päevakruiisi (edasitagasi) võib saada alates 5 eurot, samas kui valin ühe suuna reisi maksan 50 eurot. Tavareisijatelt nööritakse raha, samas kui isegi reisitngimused (nt ei leidu iste-
kohta, tuleb kogu reisi aeg jalutada ringi või istuda põrandal)
- Tasasemad hinnad kõigil väljumistel.
- Näiteks tuua välja kodulehel ka nädalapäevad, millal tavaliselt ostetakse rohkem pileteid ja pileti hind on seega tõenäoliselt kallim. Et inimesed teaksid võimalikult vara broneerida, kui soovivad minna sellisel päeval.
- Tihti reisivatel inimestel võiks rohkem soodustusi olla ja vastavalt reisimise tihedusele peaks piletite hind kujunema-mida rohem,seda soodsam.Mitte jagama poolmuidu alkoholituristidele pileteid.
See häirib tõsiselt ja väga.
- Soovin, et laevafirmad selgitaksid, miks on sama laevafirma samade reiside maksumus erinev, kui osta piletid erinevatest riikidest. Sageli on hinnad soodsamad
ostes reisi väljaspoolt Eestit.
- küsimus 13 ja 15 ning 14 ja 16 on samasugused. Tegelikkuses on laevapiletite hinnakujunemine ju laevafirma enda teha. Sama on ka lennupiletide hinnakujunemisel.
- Soovin, et hinnad oleksid kas täpselt välja toodud, et hind ei selguks alles siis, kui oled peaaegu broneeringut maksmas.
- Ei ole konkreetseid ettepanekuid, ei pea ennast pädevaks. Hinnad võiksid küll soodsamad olla.
- Ei
- soovitused soodsama pileti saamiseks
- Hinnakiri kehtiks 1 aasta.
- Korraga võiks rohkem päevi, väljumisi ja hindu näha olla.
- Konkreetsed hinnad
- Ettepanekud puuduvad. Edu! :)
- mahukam teavitus otsereklaamides.
- Laevafirma võiks määrata lisaks alates hinnale ka nö maksimum hinna. Võiks olla ka kirjas soodsamad väljumised (Nt nädalapäevad ja/või kellaajad)
- Võiks olla kindel hind, mitte neid muuta pidevalt.
- "Alates" pakkumised võiksid ära kaduda. Selle hinnaga ei ole üldiselt võimalik piletit osta ja pole ka aru saada, millal see hind siis kehtib
- Kuna viimasel ajal reisin laevaga nii vähe siis puutub ka kokkupuude hinnapoliitikaga. Võibolla oleks hea kui hinnad oleks mingi tabelina välja toodud, et oleks parem ülevaade. Võimalik, et see on ka sellisel kujul olemas ©
- konkreetsed nädalapäevad kindla hinnaga, st e-r odavamad, nv kallimad
- Nõuanded laevafirma kodulehel, mismoodi teha säästlik broneering ja eripakkumised.
- Anda teada, millal saab odavalt pileteid broneerida (kui mitu päeva ette, mis kellaajast mis kellani). Samuti teavitada sooduspakkumistest.
- Kliendile kõige arusaadavam on alati kui konkreetsel teenusel/väljumisel on konkreetne hind, mis ei muutu erinevate mõjurite tõttu. Hinnapoliitika on arusaadav küll laevafirmade kasumiteenimise eesmärki silmas pidades. Kui aga on vaja sõita, siis on vaja sõita ja teenusepakkujad Soome lahel on üsna sarnased, seega ei ole vä-
ga valikut.
- ei ole
- On kogemusi pidevalt näiteks omasin varem Tallink silver-kliendikaarti (nüüd Coldkaart). Kui olen teinud broneeringuid siis annab ainult 10\% allahindlust! Kuigi olenemata päevadest peaks see kliendikaart ettenähtud $20 \%$ allahindlust alati tegema! Selline käitumine püsiklientidega on minuarust väga halb! Ja seetõttu olen
põhimõtteliselt tihti eelistanud sõita konkurentide laevadega.
- Ei tasu suurelt reklaamida, et hind alates $15 €$, samas kui tegelikult oleks hind $50 €$. Selle kujunemine on mulle aru saadav, aga lihtsalt see on eksitav ja jätab halva maine/mulje.
- Igal väljumisel võiks olla kindel hind või rohkem sooduspakkumisi.
- pikaajalistele klientidele peaks olema erisoodustused, pluss klientidele erisoodus-
tused ja need peaksid olema märgatavad mitte paari-kolme euro vahega.
- Hoidma ka mingit hulka n.ö. koostöö partneritele pileteid nt reisikorraldusfirma kaudu..
- Kahjuks ei.

