



What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen within the next 10 years?

Research Report

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1. Abstract

This research report has been developed to gain information about a rather unexplored topic: mudflat hiking. In order to investigate this topic, quantitative research in the form of questionnaires and qualitative research in the form of semi-structured interviews have been conducted to develop this research report.

To start with, a literature review gives information about mud flat hiking as well as characteristics and trends in adventure tourism and ecotourism. This is followed by a description of the research methods, where the approach for the interviews and the questionnaires is explained. Moreover, research questions about characteristics, motivations and changes within the last as well as next 10 years were developed in order to answer the problem statement “What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen within the next 10 years?”.

The outcome of the research is presented in detail in the results chapter of this report. Therefore, the results chapter will focus on customer characteristics such as age and preferred mud flat hiking tour offered by Stichting Wadloopcentrum Pieterburen. Furthermore, the motivations of the participants are presented. Followed up by this, a description is given of four past and future trends which have an influence on the Stichting. Lastly, a comparison is made between the customer demand and the offered product of the Stichting with the support of the service gap model. This is followed by a conclusion and several recommendations. The recommendations are relevant for any organisation connected to mud flat hiking but are also for further research purposes. However, the report is especially interesting for the Stichting Wadloopcentrum Pieterburen, because their customer base has been used for the research.

Regarding the outcome of the report, it appeared that the main changing trends influencing the Stichting are the demand for educative, innovative and independent tours. Furthermore, the organisation must face an increasing number of elderly customers and families and the inclusion of technology in their tours and marketing strategy. In addition to that, a large gap occurred concerning the external communication with customers as they are not reached efficiently. Related to that, the Stichting appeared to have problems with translating their perceptions into products and services which seemed to be the reason for the declining visitor numbers.

Key words: Mud flat hiking; future trends; Gap model analysis; Adventure- and Eco-tourism; Change in Customer Demand

Wordcount: 13.971 words

2. Introduction

2.1 About Mud Flat Hiking

Wearing heavy boots and being wet until your armpits. That does not sound as a popular leisure activity, does it? However, for many people this is the ultimate experience of the Wadden Sea. Mud flat hiking is a well-known leisure activity in the northern part of The Netherlands and Germany. Convent wadlopen (2012) described this activity as walking on the flats of the Wadden Sea during low-tide with the aim to make a transition to an island in the Wadden Sea. Every year, more than 70.000 people join mud flat hiking tours in the Netherlands (Province Fryslân, 2014). Nevertheless, where the general activity of mud flat hiking is well-known, detailed information about mud flat hiking is still unknown. Stichting Wadloopcentrum Pieterburen, a Dutch organisation that provides mud flat hiking tours, has experienced a change in customer demand. The original tours consist of a four to five-hour walking journey over the flats of the Wadden Sea. But now, demand towards less heavy trips raise in popularity (B.Wielenga, Personal Communication, November 21st 2016). In the last years, organisations started to design products, where guests only walk part of the route and then, for instance, sail the other part. Due to this, Stichting Wadloopcentrum Pieterburen wondered what the current trends are in customer demand and how they can better match their tours with the changing customer demand.

2.2 The Aim of the Report

In this paper, the future of mud flat hiking is researched. More specific:

"What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen in the next 10 years?"

The outcome of this research will be specifically relevant for Stichting Wadloopcentrum Pieterburen, as demand could increase when supply and demand have an increasingly match. This will result in more customers going on mud flat hiking tours and therefore, results in a growing business. Furthermore, it will be relevant for other mud flat hiking suppliers due to their dependency on tourism income and product development as well as for other stakeholders such as the local tourism authorities and tourism businesses on the Wadden Islands. This is due to their interest in increasing tourist numbers and tourism development.

Thus, the aim of this report is to identify future trends in customer demand and to adapt these to the products of Stichting Wadloopcentrum Pieterburen. In order to come to good results, the literature review topics will form the base of this research: the characteristics of people joining a mud flat hiking tour, the most important pull factors for customers to go on mud flat hiking tours and possible changing trends in the future concerning the demand of the customers.

2.3 Structure of the Report

In the literature review, general topics and concepts are described in order to create awareness and clearance of all relating concepts. After the literature review, the methodology will describe the methods that are used to conduct further research on this topic. The research questions will give answers to the core questions of the topic. These will lead to the conclusion, where the problem statement will be answered and recommendations will be given on how Stichting Wadloopcentrum Pieterburen should adapt their products on the trends in customer demand.

3. Literature Review

The following chapter contains an in-depth literature review on chosen concepts to analyse the problem statement. The review is given to introduce and gain an understanding of the concepts of: motivation of mud flat hikers, future trends in adventure tourism and eco-tourism, changing customer behaviour in adventure tourism and eco-tourism, and service quality measurement tools.

3.1 Motivation of Mud Flat Hiker

Motivational factors are connected to the decision-making process of a tourist. This decision-making process is of importance within the customers' demand. This is due to the fact that a tourists' decisions and motivation create a customers' demand. Identifying the customers demand will support the core of the research. Which is the comparison of Stichting Wadloopcentrum Pieterburen its products and services with the current customers' demand.

The motivation of a tourist holds a great importance in different departments of a tourism business such as marketing decisions, product development advertising and positioning (Cohen, Prayag & Motial, 2013). This is due to the fact that motivation is seen as the mental and biological preference of an individual. According to Pearce & Lee (2005) and Hsu, Cai & Li (2010) this preference influences the tourist behaviour and activity which expresses itself in factors such as relaxation, enhancement in relationships and self-development, escape and experience something new. Furthermore, Goossens (2000) adds to this that elements such as imagination and emotions are also of importance within the term motivation. An emotional need could contribute to the motivation of participating in an activity of a destination (Goossens, 2000).

3.1.2 Activities

Popular activities of the Wadden Sea area have been identified with the support of a hotspotmonitor and two focus groups (Natuurmonumenten and 3300 Dutch respondents). Those are hiking, nature biking (observing nature on the bike), cycling, tanning, sitting at terrace or café and observing birds. Loon-Steensma (2015) added to this that the importance of nature is also seen within another set of main activities such as nature excursions and mud-flat hiking.

3.1.3 Connection to Eco-tourism and Adventure tourism

A resemblance of the earlier mentioned activities can be closely linked to ecotourism. The definition of eco-tourism itself is rather complex and has different elements which can also be aspect of other forms of tourism such as nature- based tourism or adventure tourism. Björk (2000) stated that these definitions are linked to a tourism activity as soon as tourists carry it out during their travel. The Wadden Sea area is mainly focused on nature orientated activities. Therefore, it can be said that there is a connection to ecotourism and adventure tourism. Adventure tourists are looking for physical challenges and relaxation in the natural environment (UNWTO, 2014). Mehmetoglu (2007) added to the motivation of eco tourists that the joy of an undisturbed natural area also contributes to their enthusiasm about the activity. This expresses itself in the way of a tourist experience being dependent on nature, experiences that are enhanced by nature and experienced for which a natural setting is accidental. However, Mehmetoglu (2007) stated that elements such as, education, recreation and adventure in a natural setting contribute to this term as well.

Several organisations in the Netherlands provide mud flat hiking tours, which match the definitions of ecotourism and adventure tourism. Mud flat hiking gives an adventurous thrill, is physically challenging and flora and fauna can be explored (Wadloopcentrum Pieterburen, n.d.). This forms the core motivation for mud flat hikers.

3.1.4 Conclusion

To conclude mud flat hikers are motivated by their emotions and personal preferences. Linking this to mud flat hiking, these tourists are motivated by their interest in nature and the educational aspect of the natural setting. Others are seeking for relaxation, personal challenges or experiences in the natural environment.

3.2 Future Trends in Adventure and Eco-Tourism

3.2.1 Adventure Tourism

Tourism is one of the fastest growing industries in the world and especially the popularity of adventure tourism increased massively over the last years (United Nation World Tourism Organisation, 2014). In 2010 the value of adventure tourism was USD 89 billion. This increased to USD 263 billion in 2013, mainly due to a rise in international departures, an increase of tourist spending and due to the fact more people went on an adventurous holiday.

According to the Adventure Travel Association, adventure tourism includes at least two of the following aspects: physical activity, natural environment and cultural immersion (UNWTO, 2014). Besides, Page and Connell (2006) define adventure tourism as “[...] a form of tourism based on activity, a challenge to participant and which may have an element of risk, thrill and excitement.” (p.639) Adventure tourism can be further divided into soft and hard adventure, depending on the degree of challenge, uncertainty, setting, familiarity, personal abilities, intensity, duration, and perceptions of control (Lipscombe 1995). Originally adventure tourism was developed because of scientific, geographic or colonial reasons. Taking a guide for doing an adventurous trip is relatively new but nowadays common in adventure tourism (UNWTO, 2014).

At the moment, adventure tourists mainly come from Europe, North or South America. However, in the upcoming years, adventure tourist numbers from Asia, central and Eastern Europe, Middle East and Africa will increase, due to their rising level of economy (UNWTO, 2014). In general, international travel is expected to increase, especially in adventure tourism. Additionally, there is the trend that travellers book their tour directly at the local company, which conducts the trips, meaning that the role of the tour operator or travel agent, who originally connected tourist and provider, is not needed anymore. Moreover, one can recognise the trend that destinations use adventure tourism as brand identity, such as Norway with fjords and glaciers and New Zealand with “100% New Zealand”, where mountains and hiking is promoted. This trend can also be seen in the private sector, companies which offer adventure tourism constantly increase their number of destinations and products (UNWTO, 2014).

The technological trend of being connected everywhere also affects adventure tourism (UNWTO, 2014). More places, also in the nature, get network connection and Wi-Fi, so tourists can share holiday

moments on social media and stay in touch to friends and family. The internet also gives more possibilities in distributing products, such as outfits, equipment, travel packages and adventure trips. In addition, it gives companies the opportunity to regularly stay in contact with customers and promote their products.

3.2.2 Ecotourism

Due to the wide range of activities in adventure tourism, often tours and packages are also part of other tourism sectors such as ecotourism. According to UNWTO (2002a) "Ecotourism includes all nature-based forms of tourism in which the main motivation of the tourist is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas." Further, it should contain an educational aspect and should help to maintain a natural area. Ecotourism tours can be organised by special guides and tour operators.

Ecotourism is, as tourism in general, expected to increase in the upcoming years (UNWTO, 2002b). Especially international travel will increase, whereas domestic travel is projected to slightly drop (UNWTO, 2002c). The duration of an ecotourism holiday will decrease, while the number of holidays taken in one year will rise. Further, an increase in guide and tour operators, offering ecotourism activities is expected and tourists demand more quality regarding their accommodation. On the other hand, Eco tourists in Europe are expected to become more price sensitive. New technology becomes more important in ecotourism, especially concerning information sharing does social media and websites play a central role (UNWTO, 2002b).

3.2.3 Conclusion

To conclude the trends in adventure and ecotourism are often overlapping. In both sectors the activity takes place in the natural environment and customers are being educated about nature and culture. While in adventure tourism the focus is lying more on the physical aspect from the participant, in ecotourism it is important to not harm the environment and protect the ecosystems. Both sectors are expected to increase in the upcoming years, mainly because tourism in general is projected to grow. Further, international travel numbers will rise for both tourism sectors and new technologies will influence the industry massively. The appearance of organisations, which offer packages and tours in adventure or ecotourism, in contribution channels such as websites and social media become more important. In addition, guides and tour operators are common to book for adventure and ecotourism holidays. These trends are also affected by the wants and needs of the customer and how it will change in the future.

3.3 Changing Customer Behaviours in Adventure and Ecotourism

3.3.1 Adventure Tourists

The rapid growth of adventure tourism is a result of a changing society, their customer preference and the general lifestyle (Kandari & Chandra, 2004). As already mentioned in the previous chapter, several trends can be identified in adventure tourism, which are affected by the changing customer behaviour. One characteristic of adventure tourists is that they highly value international travel, 71% of them have a valid passport (UNWTO, 2014). In addition, natural beauty is named most often as criteria for choosing a destination, followed by activities, which are offered at the destination and the climate. Adventure tourist mainly look for relaxation, but they also want to explore new places. Often

adventure tourists travel solo or with a partner (Kandari & Chandra, 2004). However, when adventure tourists travel with family and friends, having an experience with them seems important for their holidays as well (UNWTO, 2014). In comparison to other tourist types adventure tourists more often book guide and use tour operators. Furthermore, Kandari and Chandra (2004) argue that around 60% of all adventure tourists are female, whereas an adventure tourism market study in 2013 shows that 57% of adventure travellers were male and 43% were female (UNWTO, 2014). Besides, adventure tourists are wealthy and well- educated. Due to the diversity of adventure tourism, adventure tourism activities and packages are also part of other tourism sectors, such as ecotourism or sports tourism (Kandari & Chandra, 2004). In addition, adventure tourism can be divided into soft and hard adventure tourism, as stated in the report before, depended on the needed skills, challenges or duration. Most adventure tourists, however, are soft adventure tourists, due to the fact that it can be easily done and no training before the holiday is needed (Kandari & Chandra, 2004).

Adventure tourism is a fast-moving industry. The customers are generally open to new activities and new destinations. That is why adventure tourists often change their travel destinations and new adventure activities come up every year (UNWTO, 2014). In addition, due to the fact that adventure tourists are affluent and are willing to pay for good quality, high standards in adventure tourism regarding accommodation, the knowledge and skills of guides and the general organisation of activities become core aspects in choosing a destination and activit (Kandari & Chandra, 2004).

Within the last years, the wish to be connected with family and friends, also on holiday and during activities increased. Tourists will hardly never leave the tablet or smartphone at home and they wish to share their moments on social media, even though they are participating in an activity in the nature (UNWTO, 2014).

3.3.2 Eco Tourists

As well as adventure tourists, eco tourists are generally wealthy and well- educated. They are open minded and particularly interested in nature. Ecotourism can be part of domestic tourism, however, most eco tourists prefer to travel internationally. In addition, eco tourists are willing to financially invest in the environment for preservation and maintenance. People within 30 – 59 years participate the most in ecotourism, whereas 14-19-year-old are commonly not interested in this type of tourism (UNWTO, 2002c; Singh, 2010). 20-29 year olds are partly attracted to ecotourism. According to studies of the UNWTO (2002c) women participate more often in ecotourism than men do. However, especially older people or families with smaller children are participating ecotourism tours and activities, whereas young and elderly unmarried are difficult to attract for ecotourism. Besides, the typical eco tourists wants to have contact to locals. 50% of eco tourists wish to be accommodated in a local business and around 40% also want to try local food. Around 45% of eco tourists book their holiday over a tour operator and this type of tourist is loyal, meaning, when they booked through a tour operator once it is likely that they book their trip at the tour operator again (UNWTO, 2002c).

Due to socio-demographic changes in Europe, the family structure will change (Conrady & Buck, 2009). There will not be as many families as before and most families will only consist of one child. In addition, patch- work families become more common. For ecotourism, which is often underdone by families, this means a restructure of customers and therewith wishes and demands. In addition, the differences regarding wishes of different target groups is expected to increase in ecotourism (UNWTO, 2002c).

However, the socio-demographic changes might help in seasonality problems (Conrady & Buck, 2009). More elderly want to travel and have the possibility to arrange their holidays outside of school holidays. In addition to the socio-demographic changes there is the trend that eco tourists want to combine their ecotourism activities with other attractions while being on holiday (UNWTO, 2002c).

Ecotourism is also effected by new technology, tourists want to receive information about tours and packages online and want to have the opportunity to book on webpages (Ballantyne & Packer, 2013; Singh, 2010).

3.3.3 Conclusion

To conclude, whereas in adventure tourism, tourists often travel alone, ecotourism attracts mainly families and elderly. While both adventure- and eco tourists choose a destination regarding their natural beauty, adventure tourists want to explore new areas, whereas eco tourists are more concerned about protecting and maintaining the natural environment. Both tourist types have a higher income than the average tourist and are willing to spend more during their holidays. Further, adventure as well as eco tourists prefer to travel outside their own country. Due to the fact that the main target group of ecotourism are families and elderly, this tourism type is enormously effected by socio-demographic changes. Family structure change and more elderly will travel in the future. In both sectors, tourists demand new technology, they want to receive information on apps and social media. Additionally, tourists want to have access to Wi-Fi and wish to stay connected with family and friends via social media, during their holiday. However, the new technology also gives companies the possibility to stay in contact with clients and possible new customers.

3.4 Service quality measurement tools

In order to explore measurement tools for service quality delivery, the term service quality needs to be defined first to gain an understanding of what has to be measured. However, the literature has shown that the perception of quality has too many contrasting views, meaning that no definition is grounded enough to provide a clear definition. That is due to the subjective value judgement but also due to complex relationships of quality with any type of value (Rust and Oliver, 1994).

Nevertheless, some definitions were found. According to Lovelock (2011), service quality is a customers' long term, cognitive evaluation of a company's service delivery. Therefore, it results from the degree of satisfaction that reflects price and quality trade-offs as well as personal and situational factors. Moreover, Zeitham (2010) describes service quality as "[...] the extent of discrepancy between customers' expectations or desires and their perceptions." (*Delivering Quality Service*). Thus, quality is in this case the distinction between an expectation and the actual experienced service quality.

Still, quality is defined by many authors as a subjective view of a customer that depends on the individual perception (Schneider & White, 2004). Based on those definitions, service quality can be defined as a subjective view of a customer concerning service valuation that is depending on individual satisfaction and personal factors.

To successfully measure the service quality in this report, different methods were studied and are discussed below.

The gap model of service quality by Parasuraman, Zeitham and Berry involves the customer's overall assessment of service by comparing expectations with the actual perception of service (Lovelock,

2011). Therefore, it identifies five potential gaps that organisations have to narrow in order to meet customer's expectations and to deliver a high-quality perception (Tsai & Hsu & Chou, 2011). The central focus is thereby the customer gap (gap 5) that represents the difference between customer perception and expectation as shown in figure 1 (Appendix 2) below. If a company achieves to close that gap, a long-term relationship with the customers can be build and customer satisfaction reaches a maximum (Tsai, Hsu & Chou, 2011).

However, also the other gaps play an important role to increase service quality (Lovelock, 2011). Thus, the first gap identifies the difference between the actual expected service of the customer and the company's perception of the customers' expectations. If the company does not understand its customers, it fails to meet customer demand and delivers a low-quality service (Lovelock, 2011). Moreover, the second gap describes again the company's perception of the customers' expectations, however in comparison with the customer- driven service designs and standards. This gap deals as well with the adaption of product designs to the customers' needs and wishes. As a result, a lack of customer understanding leads to failures in product design and low service quality (Lovelock, 2011).

The next gap deals then with the service design and the actual service delivery (Lovelock, 2011). Again, if the design does not meet the expectations of customer, the service delivery does not have a high quality and decreases customer satisfaction. Additionally, gap four represents the external communication with customers in comparison to the service delivery. When communicating with customers, companies have to analyse its target groups in order to choose right communication channels and communication methods (Lovelock, 2011). Nevertheless, if this analysis fails, customers are not approached effectively which results in a low service delivery. As mentioned before, gap five is the most important one as it is very difficult to narrow the gap between customers' expectations and perceptions to have a maximum of customer satisfaction that leads to a high service quality perception (Lovelock, 2011).

In addition to the gap model, service quality can also be measured with the tool of the SERVQUAL method. The tool developed by Parsuraman, Zeithaml and Berry, identifies five different dimensions of quality known as RATER: Tangibles, Reliability, Responsiveness, Assurance and Empathy. Thus, it compares the service quality performance with the actual service quality needed by the customer (Page and Connell, 2009).

The dimension of reliability deals with the performance of the services concerning its dependability and accuracy. Furthermore, the overall trustworthiness and knowledge of staff is measured with the dimension of assurance, and all physical facilities such as equipment and communication facilities are presented in the dimension of tangibles (Page and Connell, 2009). Additionally, empathy demonstrates the attitude and care towards customers and judges the attention of the firm to its customers. The last dimension of responsiveness deals with the overall willingness of staff members for providing assistance and to deliver a prompt service (Page and Connell, 2009).

The SERVQUAL method has been used as a framework to develop many other industry-based quality assessment frameworks. However, other literature has also shown attachments to the framework by adding more dimension and applying it to the gap model as described above. Therefore, the SERVQUAL method itself does not have identical characteristics in the literature which weakens its reliability and validity. Due to the just mentioned reasons, the gap model of service quality appeared to be the more reliable and efficient tool for this research (shown in figure 1).

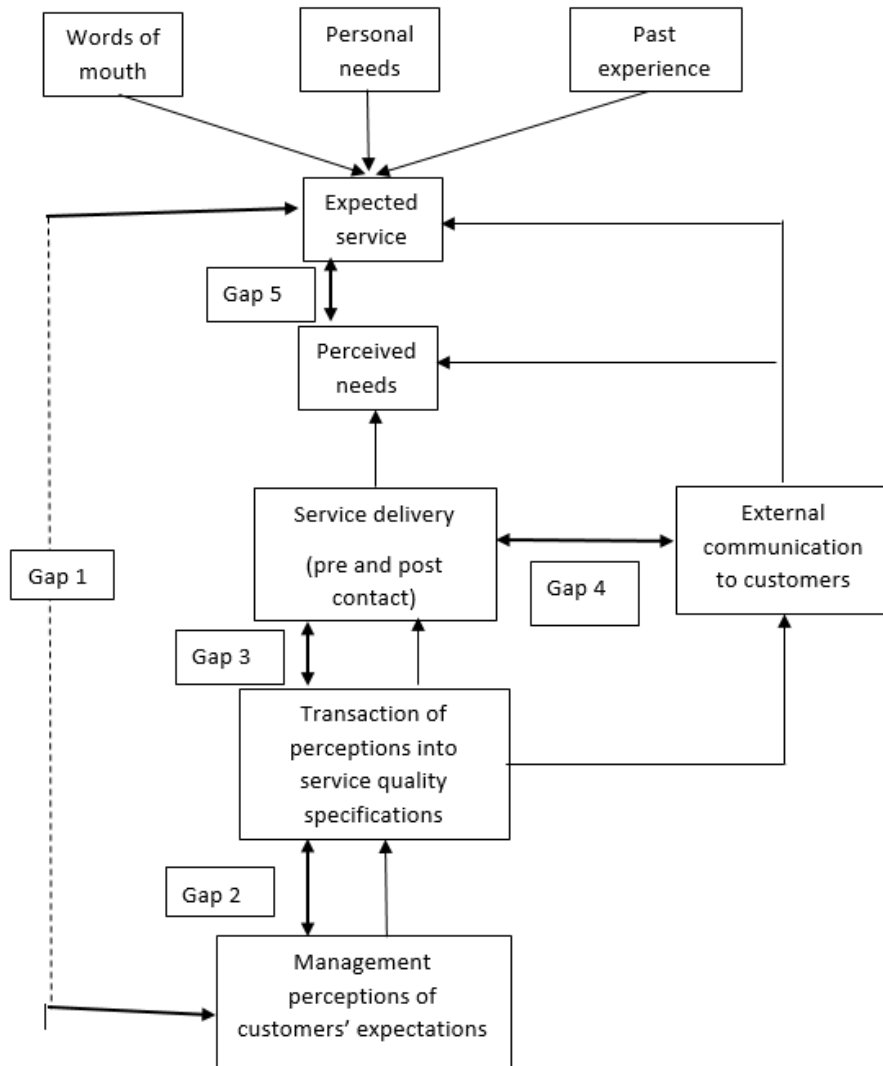


Figure 1 Gap Model

3.5 Conclusion

To conclude, it appeared that mud flat hikers are driven by their personal preferences and especially by their emotions. Therefore, it resulted that mud flat hiker are mainly motivated to take a tour by the nature and the educational aspect of the natural setting. Also, they seek for relaxation, personal challenges and experiences. Furthermore, adventure- and ecotourism are both growing sectors which are increasingly influenced by new technologies and social media.

Moreover, adventure tourists are mainly travelling individually whereas eco tourists are often travelling with their families and seem to have a higher age. On the one hand, they equal in choosing their destinations based on natural beauty, however on the other hand, eco tourists aim to protect the environment whereas adventure tourists seek to explore new areas. In addition, they both are characterised as having more income than the average tourists with a higher willingness to spend money during the holiday. Especially, both tourist types prefer to travel outbound and have an increasingly need for internet access. An important impact on those tourists has also the demographical change as those tourists are many elderly people, which population is growing.

Coming to the service quality measurement tool, it occurred that the gap model seems to be the more convenient one regarding reliability and suitability. This is due to the fact that the SERVQUAL method showed many different attachments in different literature and is therefore, not consistent. As a result, the gap model for the service quality measurement in this research.

Unfortunately, it occurred that there is not much literature about mud flat hiking. Thus, a research gap appeared concerning necessary data. As a result, the qualitative and quantitative research of this paper attempts to discover the needed information.

4. Additional information

In order to fully understand the mud flat hiking product, it is necessary to give additional information about its history, its itinerary and participation statistics. This chapter does not present reviewed literature, but contains background information based on facts and figures. Therefore, it has been developed in order to deal with the earlier mentioned topics to create a detailed image of mud flat hiking.

4.1 Characteristics of Mud Flat Hiking

4.1.1 History

Twice a day the water of the Wadden Sea flows in and out the area. When water flows out of the parts between the main land of The Netherlands and the islands surrounding it, muddy land occurs where can be walked on. This phenomenon was discovered in 1939 when three soldiers, ready for a new adventure, tried to walk to Rottermeroog (Koppe, T.J.H., n.d.). After this discovery, the Second World War put a hold on all recreational activities in The Netherlands, including mud flat walking. When the war ended mud- flat hiking became popular. Nowadays more than 50.000 people join mud flat walking tours every year (Koppe, T.J.H., n.d.). According to the Province Fryslân (2014), every year more than 70.000 people go mud flat hiking. This difference occurs due to the different dates the data was created.

4.1.2 Product

Mud flat hiking in the Netherlands mostly takes place on the Groninger wad and the east part of the Frisian wad (Tamminga, M. & Wagenaar, F., 2000). This, because the provinces of Fryslând and Groningen are directly about to the Wadden Sea, on which mud flat walking takes place. According to Covenant wadlopen (2012), mud flat hiking is described as walking on the flats with the aim to cross the area and to make the transition to an island. The same source stated that wandering is a form of mud flat hiking where a person walks on the flats, but does not make the transition to an island. Mud flat hiking journeys are offered by organisations that provide guided mud flat hiking tours. Tamminga & Wagenaar (2000), described that since 1996 mud flat hiking organisations or guides must have one of the following three licenses. Type A concerns organisations that with this licence are allowed to provide mud walking tours for groups of 50-70 people. Type B are for individual mud walking guides who are able to take a group of maximum 12 people on the mud. Type C is a general licence for mud flat hikers, but cannot take groups on the flats. Moreover, Tamminga & Wagenaar (2000) stated that most groups go mud flat hiking with the guidance of an organisations with a Type A licence. There are 8 organisations with a type A licence (Covenant wadlopen, 2012). According to the same source, these organisations work together with the Covenant Wadlopen institute that regulates how many people can walk on the mud every year to prevent mass tourism. Furthermore, does the Covenant deal with the safety of mud flat hikers and rules to protect the environment. According to Tamminga & Wagenaar (2000), in 2000 the maximum amount of participants per year for type A organisations was 50.500. In the period between 1997 and 2001 the average amount of mud flat walkers was 33.000. Far below the given maximum amount mentioned before. For the type B licence guides an average of 5465 mud flat hikers was known in 2000. According to Covenant wadlopen (2012), the weekends are very popular amongst mud flat hikers. Especially between the 1st of June until the 15th of July and from the 15th of August until the 30th of September when the low water happens between 08.00 and 18.00h. Mud flat hiking days are categorized into two means of dynamism. A2 days are referred to busy days,

so in weekends between the 1st of June till the 15th of July and from the 15th of August till the 30th of September during low water. A1 days are all days that do not fulfil the definitions of the busy days.

The following table gives an overview of all type A mud flat hiking organisations in The Netherlands. The table shows that there is a distinction between small, medium and big Type A organisations. Small organisations have no more than 1000 participants per year. Medium organisations have no more than 5000 participants and large organisations have more than 5000 participants.

Type A organisations in The Netherlands
<i>Small (not more than 1000 participants per year)</i>
<ul style="list-style-type: none"> • Vereniging de vrije wadlopers • Vereniging De Fryske Waedrinners • Groninger Wadloopvereniging Arenicola • Stichting Het Uithuizer Wad.
<i>Middle (not more than 5000 participants per year)</i>
<ul style="list-style-type: none"> • Vereniging Wadgidsengroep Noord Nederland.
<i>Large</i>
<ul style="list-style-type: none"> • Vereniging Wadloopcentrum Fryslân (max. of 10.000 participants per year). • Stichting Wadloopcentrum Pieterburen (max. of 17.500 participants per year). • Dijkstra's Wadlooptochten (max. of 15.000 participants per year).

Source: Province Fryslân (2014).

4.1.3 Participation Numbers

Very early numbers from 1991 showed that there was an increase in participants in mud flat hiking from 14258 in 1978 to 39671 in 1989. No numbers are known for the period after 1989 until 1995. After the establishment of the Wadloopverordening in 1996, mud flat walking numbers were recorded regularly (Tamminga, M. & Wagenaar, F., 2000). According to numbers from the Province Fryslân (2014), a total of 31.636 participants took part in mud flat hiking tours in 2000. In 2012, 22.834 people had participated in mud flat hiking tours. All organised by Type A organisations. For Type B organisations, 5682 people participated in 2001 and 6907 in 2012. In 2012 a total of 80.383 participants took part in mud flat hiking from both Type A and B, including nature excursions. When comparing this to the total of 79583 participants in 2000, there was only a slight increase in participants in 12 years.

4.2 Characteristics of the Products of the Stichting Wadloopcentrum Pieterburen

Wadloopcentrum Pieterburen defines mud-flat hiking as a hike in the nature of the Wadden Sea (Wadloopcentrum Pieterburen, n.d.). The hike takes place when the water is rather low, speaking of a low tide. Due to the change in tides the availability of mud-flat hiking has its variation during the year. Nature can be powerful and dangerous and mud-flat hiking tours provide a close contact to nature. Therefore, it can be stated that the mud-flat hiking tour gives the hikers an adventurous thrill. Due to this, it is strictly forbidden to walk without guidance (Wadloopcentrum Pieterburen, n.d.). Referring back to the different types of licenses, Stichting Wadloopcentrum Pieterburen offers different tours. Wadloopcentrum Pieterburen is in possession of a Type A licence and is able to take big groups of people (Province Fryslân, 2014). According to their webpage they are the oldest and most experienced mud flat hiking organisation. They operate from May until October. There are small walks which are

doable for children. On these walks a group goes partly by boat and goes partly mud flat hiking. On the more adventurous tours one can choose between different islands to walk to and can participate in night tours (Wadloopcentrum Pieterburen, n.d.). In a nutshell, Wadloopcentrum Pieterburen offers several guided mud flat hiking tours for unexperienced as well as for more advanced hiker.

To conclude, mud flat hiking tourists belong to ecotourism and adventure tourism. It is known from this type of tourism that demand is increasing, which means that it is becoming more and more popular. However, in the additional information numbers reveal that there was only a slight increase in participation in mud flat hiking from 2000 to 2012. Therefore, one can ask why this did not increase more heavily, as the maximum quota of 50.500 (for type A organisations) per year was never reached. Also, does it raise the question how mud flat hiking will develop further in the future and what is needed to make it more popular.

5. Methodology

5.1 Approach

In order to research how the future demand in mudflat hiking impacts the mudflat hiking tours, secondary as well as primary data has been collected. This is due to the fact that secondary data provides reliable information about the tourism background, however the primary data gives specific information about the mud flat hiking product. As a result, a literature review has been conducted to provide necessary secondary data about the following topics: motivational factors of mudflat hikers, product characteristics of a mudflat hiking tour, customer characteristics in ecotourism/adventure tourism/nature-based tourism and measurement tools for service quality. Those concepts are necessary to discuss due to the importance of background information in tourism, as well as to specify and narrow down the product this research is dealing with.

Then, primary data was collected by questionnaires as well as interviews. The questionnaire were developed to gain an insight into the specific customer demand of mud flat hikers, their experience, needs and motivations. That is strengthen the research in its reliability and validity as it is specifically dealing with responses of the customers of the Wadloopcentrum Pieterburen. Furthermore, three interviews were held with experts in the field of mud flat hiking tours. In those interviews, specific information about the product characteristics and their experience of the customer response to the products was gained. Thus, results of the interviews and the questionnaires were compared in the end to analyse how the offered products by the Wadloopcentrum Pieterburen meet the customer demand. Based on those findings, recommendations were made for improvements in the product itinerary.

5.2 Conceptual Framework

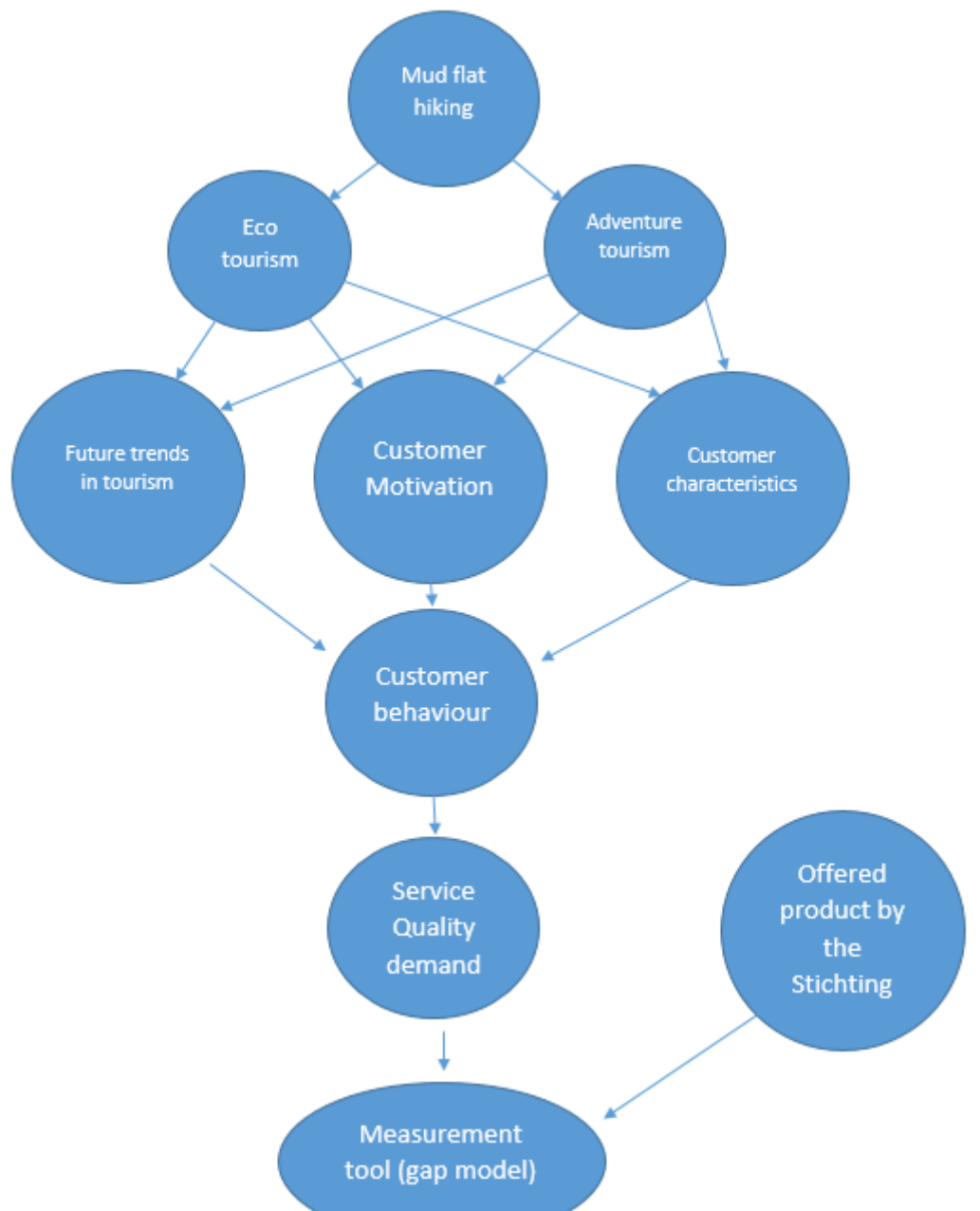


Figure 2 Conceptual Framework

In order to answer the problem statement several concepts have to be explored. As mud flat hiking in the Netherlands is rather unexplored in literature, the secondary data is based on generally eco- and adventure tourism. Therefore, identifying customer characteristics, motivation and future trends of tourists in these tourism types gave an insight in their general needs and preferences. The service quality measurement then gave the possibility to compare customer wants and needs with the actual product offered by the organisation. With this information the products of the Wadloopcentrum Pieterburen can be adapted to the changing customer behaviour.

5.3 Research Questions

In order to answer the problem statement “What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen in the next 10 years?”, the following research questions have been developed based on the concepts mentioned earlier:

- **RQ1:** What are characteristics of customers joining mud flat hiking tours organised by Stichting Wadloopcentrum Pieterburen?

This research question is answered by conducting quantitative research and is important to identify the target group with its characteristics, needs and demand. This is due to the fact that it is necessary to know, who one is offering the products to. Furthermore, it adds validity to this research by specifying information and results.

- **RQ2:** What are motivational factors of customers going on a mud flat hiking tour organised by Stichting Wadloopcentrum Pieterburen?

The motivational factors of the target group are very important for the Wadloopcentrum Pieterburen due to the fact that its products might need to be adapted to the customer’s needs. Moreover, it gives an insight why people join mud flat hiking tours that can also assist for the development of the product itinerary or new products. As a result, it adds validity to this research by creating a reliable base of information to answer the problem statement. The information, needed in order to answer this research question, is also gained by conductive quantitative research.

- **RQ3:** What are future trends in mud flat hiking tours in regard to the developments over the past 10 years?

When predicting trends for the future, it is important to take past changes into consideration. Therefore, this research question is exploring future trends by conducting quantitative and qualitative research. Thus, the interviews with tour guides will give an insight into the past changes, whereas the customer questionnaires are providing information about the customers wishes in the future. This information is of high importance to this research as future trends are a main concept to answer the problem statement.

- **RQ4:** To what extent do the current products of Stichting Wadloopcentrum Pieterburen meet the changing customer demand of mud flat hikers?

In order to identify the impacts of changing trends in mud flat hiking, the offered products need to be compared with the wishes and needs of the customers. This is of high importance in order to identify gaps in service quality and to measure the impacts to the Stichting. As a result, this research question builds the final base to answer the problem statement and to give recommendations for product improvements.

5.4 Methods & Techniques

As stated earlier, the research makes use of quantitative research in form of customer questionnaires as it has a higher reliability by reducing a complex problem to a limited number of variables. These were done online and were distributed with the assistance of the online customer base of Stichting Wadloopcentrum Pieterburen. The questionnaires are based on secondary data, found in the literature review. All the questionnaires have an equal content and therefore, increase the reliability of the

research due to the ability to replicate this research. Also, specifically questionnaires were chosen as a method due to the advantages of collecting large amounts of information from a large number of people. Moreover, it gives the possibility to get in direct contact with many customers at the same time. However, secondary data is also used in the form of using a research model, named the service quality gap model. This tool is used in the fourth research question to make a comparison of the collected quantitative and qualitative data. As mentioned in the literature review, the gap model of service quality is of highest reliability and suitability in comparison to other service quality measurement tools as it has an equally spread content and was applied by different sources. Also, it did not show any additions or further developments in literature such as the SERVQUAL method, therefore it is consistent in its structure. Thus, it has been chosen for this research paper (Tsai, Hsu & Chou, 2011; Lovelock, 2011).

Concerning the qualitative research, semi-structured interviews were conducted with interviewee A, an expert in the field, interviewee B, a local mudflat hiking tour guide and interviewee C a representative of the Stichting Wadloopcentrum Pieterburen. These interviews were necessary as not enough academic sources are available to discover the current products of Stichting Wadloopcentrum Pieterburen. Furthermore, semi-structured interviews were chosen as it allows informants the freedom to express their views in their own terms but also as it allows follow-up questions. Using the interviews to gain this information will strengthen the validity of the research as different perspectives are gained. The use of multiple research methods (qualitative and quantitative) can be referred to as the triangulation method (Veal, 2006).

5.5 Ethics

This research contains the use of questionnaires. These questionnaires are anonymous, as only the motivation and reasoning behind participating in a mud flat hiking tour is asked. Therefore, the names of the participants are not necessary and held anonymous. The interview could be in conflict with informing on consent due to the research belonging to Stichting Wadloopcentrum Pieterburen. This fact could not be mentioned, as interviewees can be restricted in talking freely with this knowledge.

5.6 Population and Sample

The problem statement “What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen in the next 10 years?” is focusing on the Stichting Wadloopcentrum Pieterburen and its customers. Therefore, the research population are all customers, doing mud flat hiking tours with the guides of Wadloopcentrum Pieterburen. The organisation has a customer database, which can be used to send out online questionnaires. Thus, the sample consists of customers from this data base. The size of the customer data base is 11264 email addresses. However, it was also communicated that this data can be older than 10 years. As a result, many email addresses were outdated and not valid anymore. Therefore, it was estimated that 50% of the data is still valid which leads to a population size of about 600 customers. Based on a confidence level of 95% and a margin of error of 5% (industry standard), the actual sample size for this research is 362. Still, it is expected to have a low respondents rate of 25% as it is assumed that the customers have rather low technical skills, no daily internet access and due to the unfortunate season for the surveys. That is due to the only possibility to ask customers around Christmas time, based on organisational reasons. For that reason, it was decided to send the questionnaire to 1240 people in order to have a number of respondents which is similar to the calculated sample size. The actual number of respondents were 224 at the end, which results in a respondents rate of 18%.

From this information, it can be generalised what the customers wants and needs of the organisation are. In addition, quantitative research was done. Three interviews with guides and experts about mud flat hiking tours were asked several questions in order to get a deeper insight into the topic.

5.7 Reliability and Validity of the Research

Regarding the reliability and validity of this research, questionnaires have been used as they reduce a complex problem to a limited number of variables. Therefore, the method adds a high reliability to this research due to the equal content of the questionnaires. As a result, it can be replicated easily. In addition to that, the sample size of this research involved only customers of the Stichting in Pieterburen who requested this research. Thus, it adds a high reliability and validity to this research due to the direct experience customers had with the Stichting.

Furthermore, detailed secondary data about mud flat hiking could not be found which is the reason why semi- structured interviews were conducted. Thus, in-depth information was gathered which strengthens the validity of this research.

5.8 Limitations

Several issues affected the research, which influenced the outcomes and results. Firstly, it does not exist a lot of literature and academic sources about mud flat hiking tours. Those which can be found, are mostly old and cannot paint an accurate situation of today or future trends. Therefore, in the literature review, motivational factors, characteristics and future trends are broadly analysed with the assistance of literature about adventure- and ecotourism and is then transferred to mud flat hiking.

In addition, interviews were held in order to gain more in depth information on mud flat hiking. However, due to a small target audience for these interviews, as there are only a few professionals in this field, it occurred as a limitation that some people were not willing to participate in the interview. This results in a less reliable research due to the unilateral information.

Further, the database of the Wadloopcentrum Pieterburen is needed for the questionnaires. A problem occurred while trying to send out the surveys, since the email could not have been send out altogether, while still ensuring the anonymously of this research. Therefore, only 15 emails could have been send out together and in total 1240 emails were sent out, instead of sending out email to all 11,264 customers. However, the research was also depended on the active response of the costumers. Due to the fact that the questionnaire was sent out before Christmas, people might not have answered over the Christmas days because they were out of office (were mails were sent to) or they spent their time differently. As calculated earlier, 362 people were supposed to answer the questionnaire, in order to generalise the outcomes. However, only 224 customers filled in the survey. A higher respondents rate would have increased the reliability of this research.

Furthermore, due to the fact that the triangulation method is used, there is a risk that qualitative and quantitative research is not of excellent quality, because it was not focused on one method. However, the qualitative research is only used to gain supportive information and not to gain in-depth perspectives, this limits the quality of the research.

Another limitation was the time for the research. If more time would have been available, more emails could have been send out and the respondents would have had more time to fill in the questionnaire. In addition, more in-depth knowledge could have been gained through interviews. Besides, the

internet surveys were available in Dutch and English, even though some words have a slightly different meaning in the other language. Additionally, in the online survey, the answer possibility “tour” for the question “Why did you join the mud flat hiking tour of Wadloopcentrum Pieterburen?” might have been confusion in meaning. It was unclear, that the route and the way the tour went was meant with this term.

7. Research Results and Analysis

Within this chapter the results and analysis of the conducted research will be presented. The results are derived from 224 respondents who have answered the questionnaire as well as from the semi-structured interviews. These sources are used to answer the research questions and combine the earlier described theory with the results of the research.

7.1 Customer Characteristics

In the questionnaire, customers of Stichting Wadloopcentrum Pieterburen were asked about characteristics regarding mud flat hiking and personal elements. The results will be presented in this research question. Therewith the target group can be identified and information about this group can be found.

As it can be seen in figure 1, more than half of the customers (54%) are between 49 and 64 years old, 20% are in the age category 37-48 and 18% are younger than 37 years. 11% are 65 years old or older. This shows that the main customer base of Wadloopcentrum Pieterburen is older than 49 years (65%). Regarding the travel company, it can be seen in appendix 3, table 5, around 38% of customers join the mud flat hiking tours with their family, 28% join with their partner and one third (25,4%) went on the mud flat hiking tour together with friends. This demonstrates, that a main characteristic of most of the customers is the fact that they are travelling with children, which also shows the importance of families for Wadloopcentrum Pieterburen.

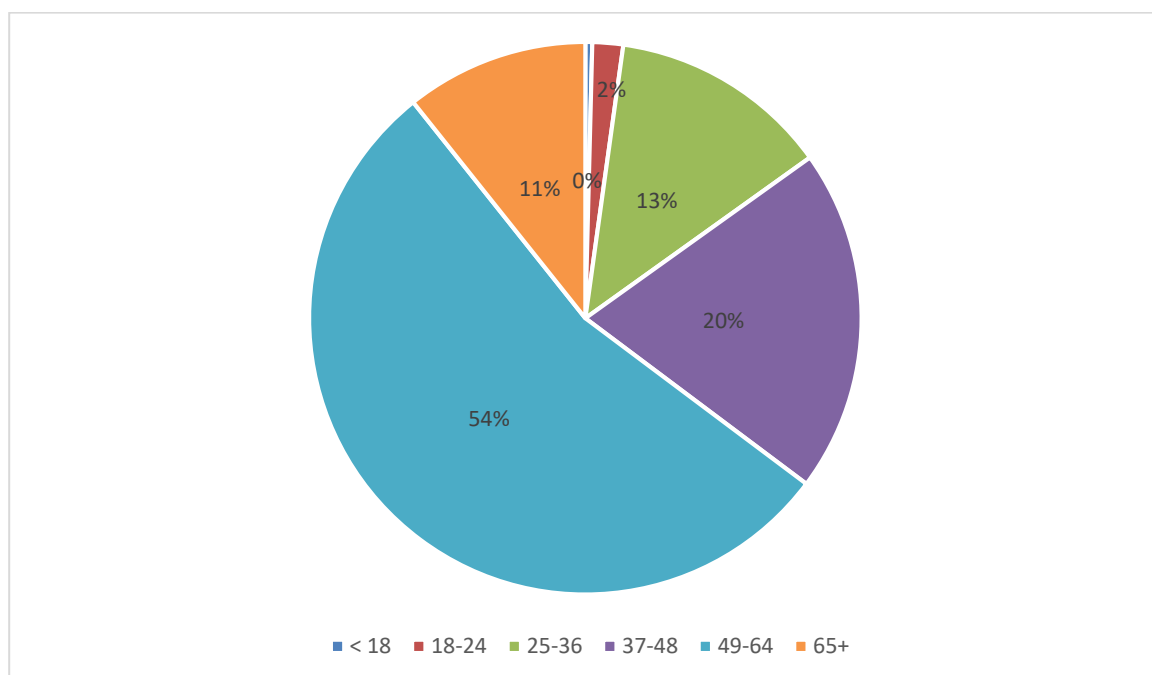


Figure 3 Age division (N=224)

Most of the mud flat hikers participate in tours in the summer (68%), followed by tours in autumn (18%) and spring (14%). Additionally, more than 80% are doing mud flat hiking tours during their day trip, only 14,7h% are participating in a guided tour during their holiday.

In table 1 in appendix 3, one can see that half of the customers (50%) want tours which last between two and four hours. 45% are willing to spend more than 4 hours in the mud and only 5% want to participate in excursions, which last less than 2 hours.

However, differences in the age groups regarding the duration of tours can be recognised, as it can be seen in figure 2. Whereas most of the under 65 year olds prefer tours between two and four hours, only one quarter of the 65+ year olds want tours between two and four hours. A decrease in tours under two hours could be identified. 25% of the 18-24 old want these short tours, this declines to 4% in the age category 37-48 and to 0% in the age category over 65. On the other hand, tours over four hours get more popular in an older age. 25% of the 18-24 year olds want tours longer than four hours. In the age category 37-48, 38% want these tours and the majority of people over 65 want tours which take longer than four hours (75%). Therefore, it could be identified that the wishes regarding the duration of mud flat hiking tours is dependent by the age. Further, a significant difference between the age categories could be recognised regarding their wish for the tour duration ($\chi^2 = 29,142$; $df = 10$; $p = 0.001$) (Appendix 3; table 10).

	<18	18-24	25-36	37-48	49-64	65+
Up to 2 hrs	0%	25%	17%	4%	2%	0%
Between 2 and 4 hrs	100%	50%	52%	58%	51%	25%
More than 4 hrs	0%	25%	31%	38%	47%	75%

Figure 4 Cross Table: Age vs Tour Duration (N=224)

Regarding the supportiveness of customers, it could be identified, that three quarters of the clients of the Stichting Wadloopcentrum Pieterburen would consider themselves as sportive (Appendix 3; table 6). This matches the fact that people, participating in adventure tourism are commonly physically active and sportive.

In figure 3, one can see the division over the different tours. The tour “Wadlopen via Brakzand naar Schiermonnikoog” is joined the most by customers. 31% of the clients already went on this excursion. Besides, 24% have participated in the guided tour to Ameland and 13% went on the tour “Struuntocht Lutjewad + zeehonden zien”.

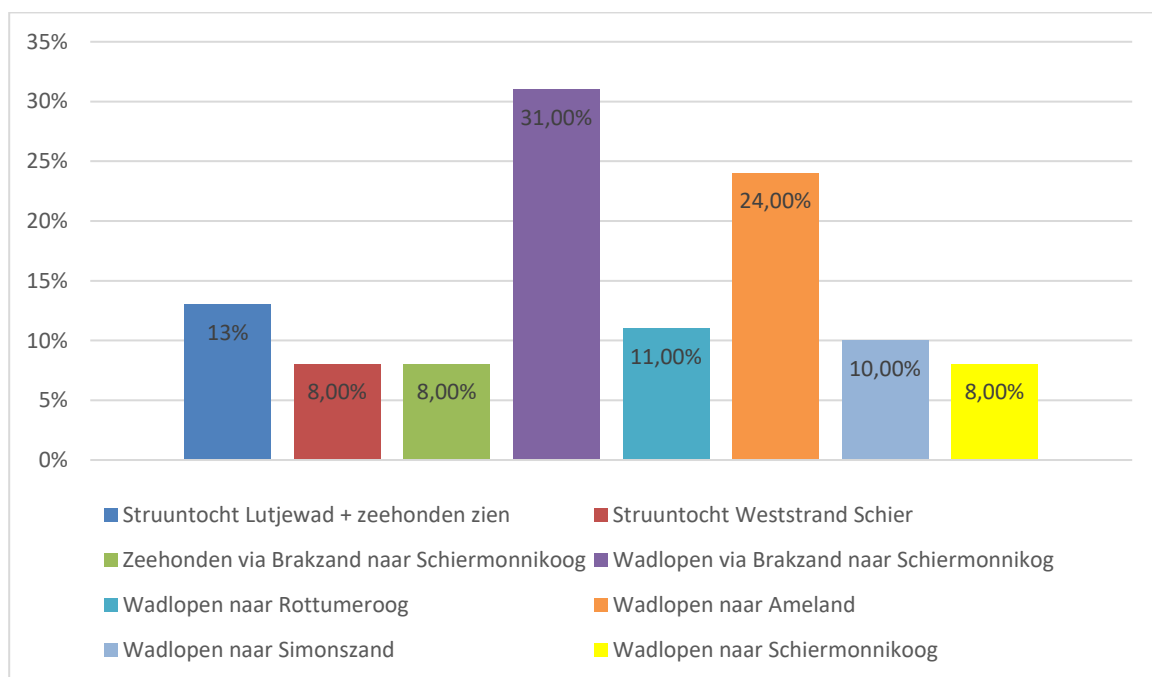


Figure 5 Participation in Routes (N=224)

The fact that especially elderly and families are joining activities in the nature, is also recognised in eco-tourism and is therefore of great importance for offering products and activities. Furthermore, most of the eco-tourists are in the age category 30-59, which equals the outcome of the customer base of the Stichting Wadloopcentrum Pieterburen. Besides, literature states that summer is the most attractive time for mud flat hike tours. This is the same for the customers of the Stichting, since most tours are booked for that time.

7.1.1 Conclusion

In general, the target group of Wadloopcentrum Pieterburen are people, who are older than 49 years and mostly go on day trips with their family, friends or their partner. Therefore, special offers for people joining the tours with children are significant for the organisation. Further, summer tours are most popular amongst the clients and most customers want tours, which last between two and four hours. However, tours, which last longer than four hours are also popular amongst the customer base. Regarding the duration of tours a significant difference could be identified between the age groups, whereas young people prefer tours between two and four hours, people over 65 want tours longer than four hours. The mud flat hike to Schiermonnikoog is already done by 31% and also the tour to Ameland and the route “Struuntocht Lutjewad + zeehonden zien” is popular amongst customers, which shows the importance of these routes.

7.2 Customer Motivation

In order to research the motivation of mudflat hikers about joining tours of the Stichting Wadloopcentrum Pieterburen, customers were asked about their choices for tours, the Wadloopcentrum in Pieterburen and about their motivation to do mudflat hiking in general.

Concerning their motivation to join a tour, almost three quarter of the customers (73%) stated that they chose a tour based on the route. Compared to the other results this is the most dominant motivational factor for customers. This is due to the fact that only 19% said that they chose a tour because of additional activities such as seal watching and only 18% mentioned the final destination as a reason. Also, it appeared that the length of a route does not have a major influence on the motivation of hikers as only 15% of customers stated it as a motivational factor. Therefore, it can clearly be seen that the route of the tours is influencing the customers’ choice immensely.

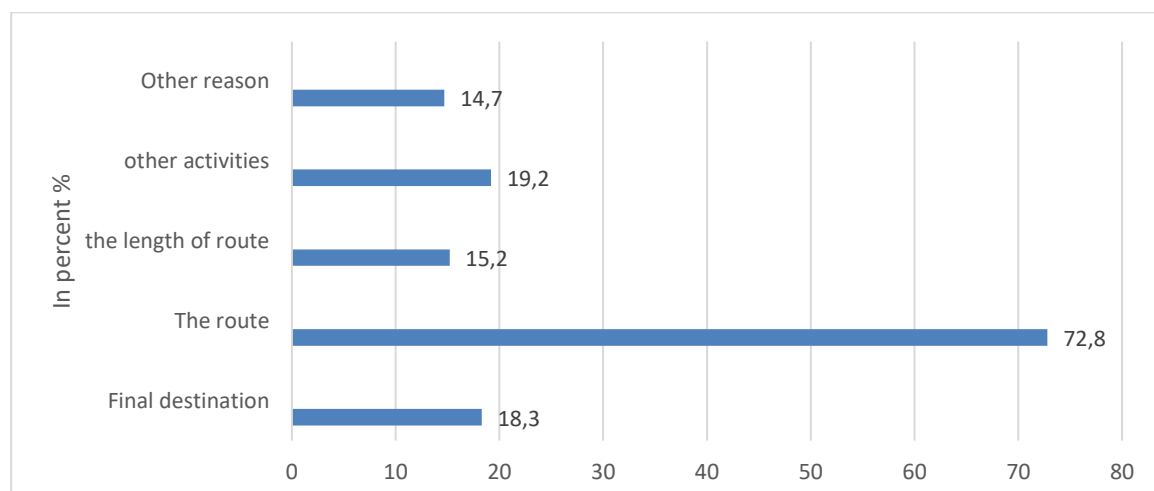


Figure 6 Why did people chose the tour? (N=224)

Concerning the results of the customers' general motivation to go mudflat hiking, it occurred that the motivation is differing. On the one hand, almost 70% stated that they are motivated by being outside and in the nature. However, also 42% stated that the sportive aspect as well as learning about the environment are major motivations to go mudflat hiking. Also, almost 40% explained that is a motivation to spend time with family and friends. On the other hand, only 6% mentioned relaxation as motivation to go on a mud flat hike. As a result, the motivation of people going mud flat hiking cannot clearly be defined, nevertheless is mainly based on being outside in the nature. Still, the sportive aspect, the time with family and friends as well as the educational aspect about the environment are also significant motivations of customers.

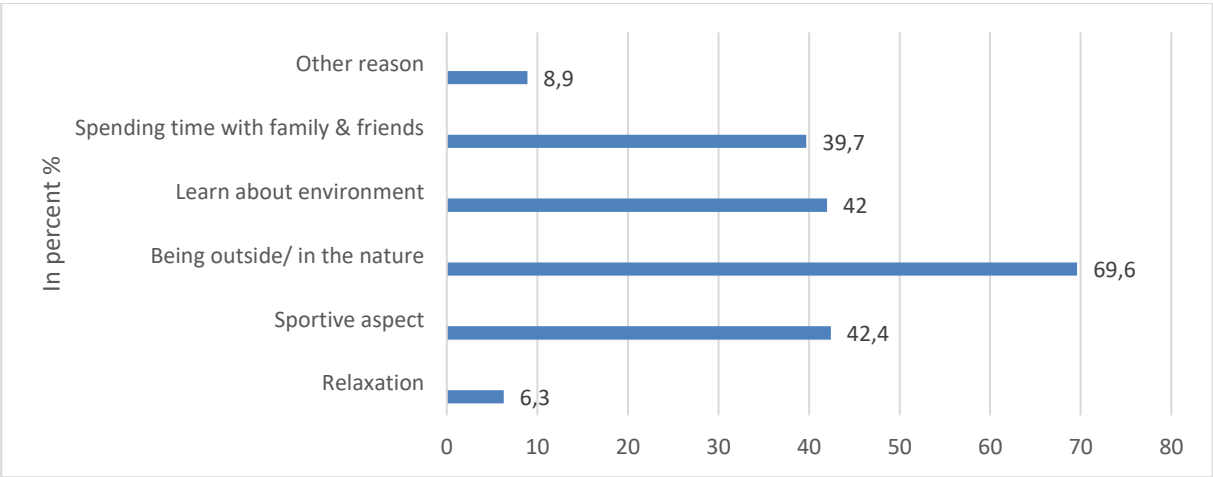


Figure 7 Why do people go mud flat hiking? (N=224)

Regarding the decision of customers to choose the Wadloopcentrum Pieterburen as a provider for tours, most of the respondents (37%) stated that other reasons as mentioned in the questionnaire were the reason for choosing the Wadloopcentrum Pieterburen. By analysing their answers, it appeared that 85% of the customers who ticked 'other', chose Pieterburen as they had a gift voucher from either friends or from the ING Group. Besides, 30% of all customers choose the Wadloopcentrum as it is easy to book or as it offers the best routes (15%).

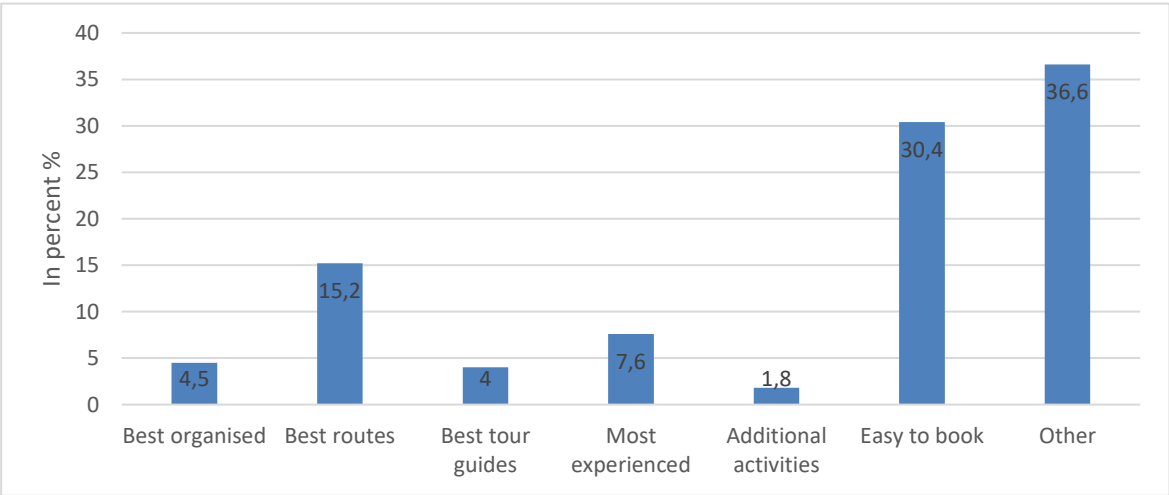


Figure 8 Why are people choosing Wadloopcentrum Pieterburen? (N=224)

Based on the above-mentioned results of the questionnaires, the motivational factors of the customers of Wadloopcentrum Pieterburen fit with the theory explained in the literature review. There, it was explained that adventure tourists in general are mainly nature orientated and focus on physical challenges. In addition, eco tourists were defined as being highly interested in nature and as including nature in their holiday activities. This is also the case at the customers of the Stichting in Pieterburen as nature and the physical challenge was stated as the most important motivation. As a result, their customer can clearly be defined as eco- and adventure tourists.

7.2.1 Conclusion

To conclude, it appeared that the customers of the Wadloopcentrum Pieterburen are mainly motivated by the route of the tour that is offered and that they like being outside in the nature. Also, they are motivated by a physical challenge, additional activities and by spending time with their families and friends. Concerning their choice for the Wadloopcentrum as provider, it appeared that mainly gift vouchers and the offered products are the pull factors for customers.

7.3 Past and future trends

To discover the past and future trends a questionnaire and semi-structured interviews have been conducted. Within this chapter, the results of the questionnaire are analysed and the results of the interviews concerning interviewee's perspective on the future trends of mud flat hiking tours are explained.

7.3.1 Questionnaire results

Trend 1) Increasingly elderly people in eco-tourism

The first trend which has been identified is connected to the literature review in which the UNWTO (2002c) stated that the target groups, such as elderly and families, are attracted to eco-tourism related activities. This is a trend that has already been identified in the year 2002. When comparing this trend with the results of the questionnaires, this trend is still going on. Since 54% of all respondents are within the age category of 49-64, they can be confirmed as 'elderly'. This can be seen in table 8 of the appendix. As mudflat hiking is considered as belonging to ecotourism as well as adventure tourism, there is a trend of having increasing elderly participants in the sector. Besides, the companionship structure has shown that most of the respondents participate in a mud flat hiking tour with their family. This can be seen in figure 7. Therefore, a comparison with the literature shows that from 2002 until 2016 mostly elderly and families participate in mud flat hiking tours.

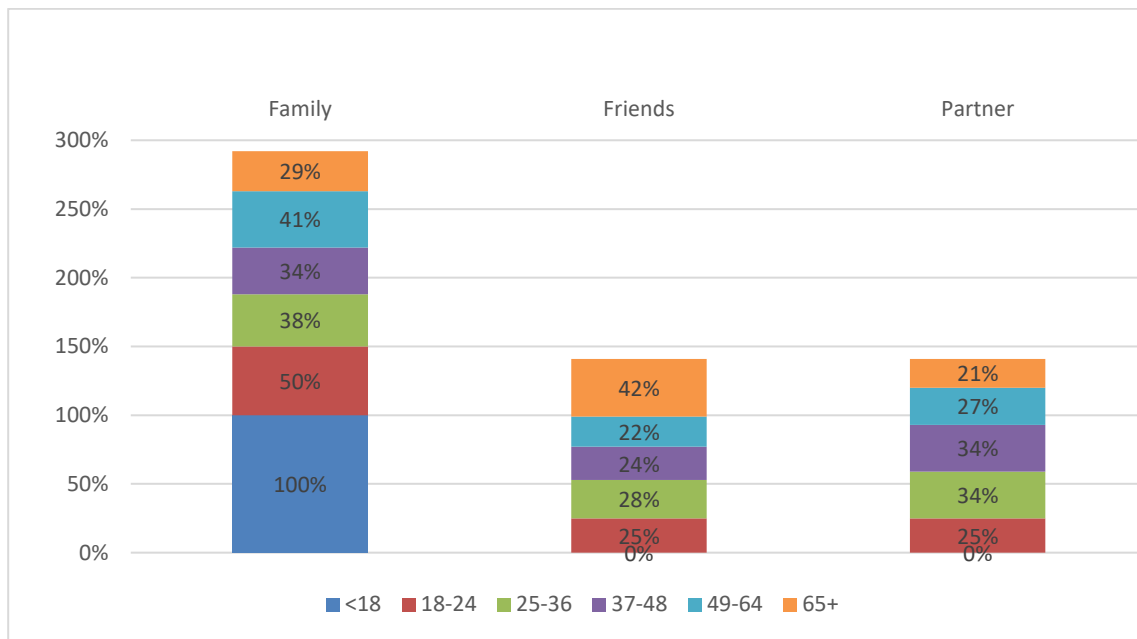


Figure 9 Cross Table: Age vs Travel Company (N=224)

Trend 2) Diverse demand for additional services

The second trend that has been discovered is a diverse demand for additional services in mud flat hiking tours. The respondents of the questionnaires indicated that they would prefer additional services such as seal watching (14%), pick up services (14%) and more education about the Wadden Sea (13%), shown in figure 8. As these percentages are rather equal, it can be stated that opinions differed a lot. The preference for seal watching and education about the Wadden Sea can be combined as a demand for more educational/experience tours. Furthermore, the preference for pick up services show a need for more comfort within a mud flat hiking tour. As only 7,3% would like to rent gear, or have entertainment tours (3%), it results that the major demand for additional services lays in educational services, pick up services and seal watching.

However, the results also show that a total of 21% of the respondents indicate that they would not like any additional services within a mud flat hiking tour. This means that more people would prefer the single and simple tour than having additional services within it. Despite the fact that the preferences differ, the single tours in the past seemed to not affecting the overall satisfaction of participants of Stichting Wadloopcentrum Pieterburen. This is due to 56% of the respondents who are more than satisfied, and 40% who are very satisfied with the provided tours of the Stichting. This information can be found in table 12 in the appendix.

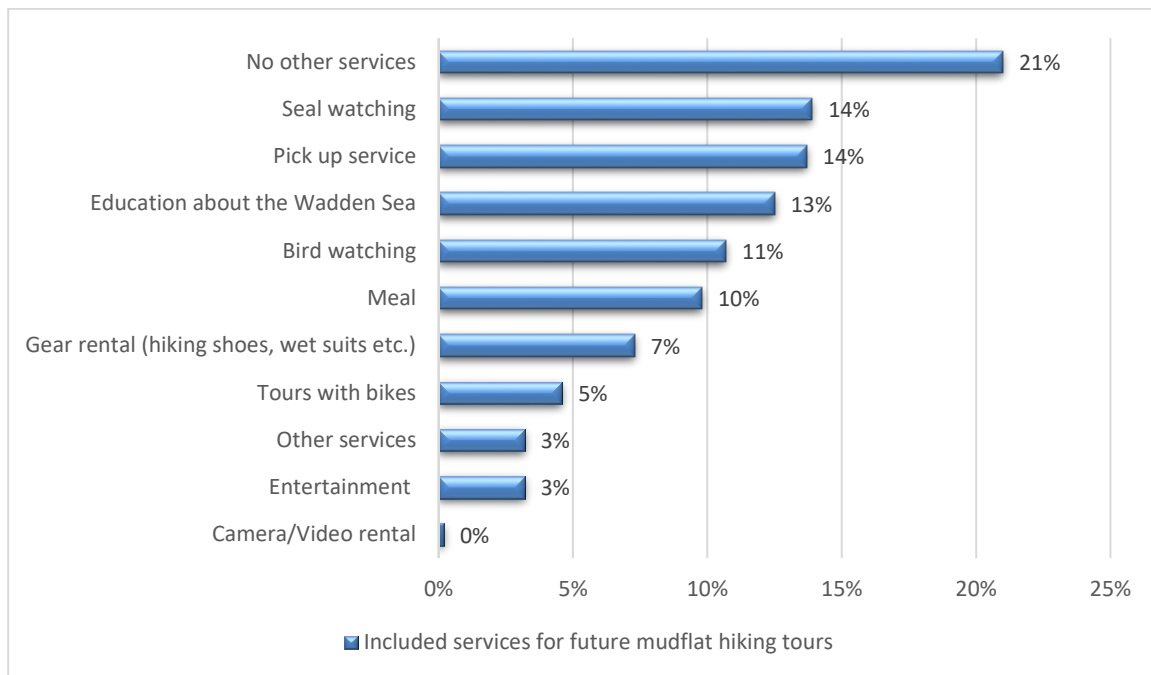


Figure 10 What service should be included in mud flat hiking tours? (N=224)

7.3.2 Interview results

Trend 3) Need for innovative, educational and independent tours

The third trend has been identified by the support of the semi-structured interviews. As a result from the interviews, a growing demand for more innovative, educational and independent mud flat hiking tours was indicated. This can be seen as a future trend. This future trend looks similar to the second trend. But this is not the case, this future trend is based on specific mud flat hiking tours which will emerge or grow. The specific mud flat hiking tours are: innovative, educational and independent mud flat hiking tours.

Innovative tours

The interviewees believe that technology will help to create more innovative mudflat hiking tours in the future. The creation of apps and the usage of cameras are examples to make a mud flat hiking tour more innovative. Innovative mud flat hiking tours are based on technological innovations. This means that gadgets such as apps are used when participating in a mud flat hiking tour. Participants of such a tour are in favour of the assistance of technology to educate them about the Wadden Sea.

Educational tours

In addition, they also stated that there has been a considerable change in the demand for mud flat hiking tours due to the fact that mud flat hiking is showing signs of a decline. According to them, there also seems to be a shift in interest from cross-over tours (walking from the dike in Holwerd to Ameland) to experience tours (tours which let you experience the nature of the Wadden Sea). This resulted in the assumption that there is a demand for a more educational mud flat hiking tour. Educational mud flat hiking tours have a focus on explaining about the flora and fauna of the Wadden Sea, experience tours are closely linked to this tour. Nevertheless, the experience tours also focus on entertaining the participants and to provide services such as a ship to make the tour more comfortable.

Independent tours

Besides, it occurred that there is an increasing demand for independent tours, meaning that only a small group of participants is led by one guide. This outcome appeared in the questionnaires, but was also explained by the experts. Moreover, these tours would give participants a greater and more individual experience in the mud as the individual wishes and needs of customers can be considered. This also equals to the fact that service quality significantly increased its importance in the tourism industry, according to literature.

Trend 4) Technology

The fourth trend is the technological trend on behalf of the organisational side of a mud flat hiking tour. The interviewees reported that technology can help in establishing guidelines for safety and educational aspects. For instance, websites provide information for participants on necessities for participating in a mud flat hiking tour, while the creation of apps and other technological communication tools can prevent dangerous situations such as extreme weather conditions. Furthermore, the interviewees highlight that technology can be used as a marketing tool, such as Facebook as a format for constructive feedback. Whereas, other social media channels are used as an additional information source for participant questions and booking options. This will assist with the creation of new products for future mud flat hiking tours. This agrees with the literature review, as the same technological trends for eco-tourism and adventure tourism have been identified.

Overlapping Trends

The results from the questionnaire and the results from the interviews show some overlapping trends. First of all, within the trend of 'the diverse demand of mud flat hiking tours' there is a considerable amount (14%) of the respondents who show interest in the education about the Wadden Sea. This agrees with perspective of the interviewees who also prospect a higher demand for educational mud flat hiking tours in the future. This applies as well to the preferences for no additional services at all, which as well has been identified in the second trend. This preference agrees with the interviewees thoughts on a growing demand for independent tours due to the fact that these independent tours have a main focus on a professional and an advanced level of mud flat hiking. Therefore, the independent tour has no extra additional services.

7.3.3 Effect on Wadloopcentrum Pieterburen

These trends can have a considerable effect on Stichting Wadloopcentrum Pieterburen. Especially the second and third trend which are focused on the demand of mud flat hiking tours. Within the third trend the emergent and growth of new mud flat hiking tours have been identified. The interviewees have an expert background in the field of mud flat hiking. They are aware of this trend and could become a future competitor and therefore could pose a threat to the Stichting. However, Stichting Wadloopcentrum Pieterburen already provides a variety of mud flat hiking tours. Within the second trend it is stated that their customers show a high satisfaction level for the tours of the Stichting. This leads to the conclusion that the Stichting is not threatened directly, but need to take the possible competition into account when developing their products.

7.3.4 Conclusion

To sum up the above, it can be stated that four future trends have been identified. Firstly, it appeared that there is an increasing interest of elderly and families in nature activities such as mud flat hiking. Secondly, the respondents of the questionnaire have shown that there is a diverse demand in mud flat hiking tours. On the one hand, customers would prefer additional services such as seal watching, a pick-up service or educational aspects, however on the other hand, even more people that they would not like to have additional services included. Furthermore, the analysis has shown that there is a future trend for innovative, educational and independent tours according to the interviewees. Also, technology will play a role within organising a mud flat hiking tour in the future. Therefore, it might influence the safety and educational establishment of the tour, but will also provide new opportunities to create new products with the use of social media. When comparing the outcomes of the questionnaire with the interviews it occurs that some trends are overlapping, such as a growing demand for educational tours and independent tours. Some of the trends can affect Stichting Wadloopcentrum Pieterburen. This is because the Stichting is not the only organisation which is aware of these trends. Possible competition is also aware of the earlier stated trends and can pose a threat to the Stichting. However, Stichting Wadloopcentrum Pieterburen has a high satisfaction level amongst their customers. Therefore, they should take these trends into consideration when proceeding with providing mud flat hiking tours.

7.4 Application Gap Model

This part of the report deals with the gaps between the impacts of changing trends in customer demand and the supply of Wadloopcentrum Pieterburen. This is done by comparing the current products of the Wadloopcentrum with the changing wishes and needs of customers to identify gaps between supply and demand.

7.4.1 Supply of Wadloopcentrum Pieterburen

In order to identify gaps between supply and demand of Wadloopcentrum Pieterburen, a clear overview needs to be created of which products the Wadloopcentrum Pieterburen offers. The qualitative research is a base for this information.

Different Tours

Concerning their product ranges, Wadloopcentrum Pieterburen offers different mud flat hiking tours. First of all, the Wadloopcentrum stated that they offer cross-over tours, in which a group of mud flat hikers crosses the mainland to an island. These tours are perceived as long and tough, as described in the interview. These cross-over tours are offered to Ameland, Schiermonnikoog and Rottumeroog. According to the Stichting, Ameland is the most popular and enjoyable tour amongst all three cross-over tours, even though the tour is more than 3 hours. The participants are of all kind, sportive and non-sportive, young and old. Also, it was stated that some find the distance and the effort too hard, some find it doable.

Secondly, the Stichting offers wander tours. From the start, these were rather simple tours, the group starts somewhere, wanders around and comes back to that point. According to the Stichting, the

disadvantage of these wander tours is that the thick mud just after the land needs to be crossed twice. The advantage on the other hand is, that the tours are easier and meant for people who are not willing to make such a big sportive effort, but want to experience the flats. Moreover, wander tours offer a big educational aspect as well, as the group gets explanations on the sea and the flora and fauna on the flats. Thirdly, Stichting Wadloopcentrum Pieterburen offers experience tours. The participants are brought to a ship that brings them to a place where the group can go mud flat hiking. They also have the possibility to stay on the ship. These experience tours are specially made for participants that seek for an easy trip with a small sportive effort. It was explained that the participants on this tour are very diverse, from small children starting at the age of 4, till elderly people aged around 74. Included in these tours is seal watching, which is highly popular amongst participants of these experience tours. Thus, the Stichting stated that this makes the experience tours the most popular and most booked tours of Stichting Wadloopcentrum Pieterburen.

Perceptions of Stichting Wadloopcentrum Pieterburen

To continue, it is important to mention a few interesting perceptions of the Stichting. According to them there is a lot of demand for renting gear. The Stichting does not rent out gear, but recognises that a lot of participants show up unprepared. According to the Stichting, this affects the experiences of the participants, as mud flat hiking becomes more difficult and more heavy without proper gear. They also said that a hotel owner in Pieterburen does rent out gear, and described it as very profitable for them. Another interesting outcome of the interview is that the Stichting recognised that people are increasingly seeking for packaged tours, including food and drinks. Furthermore, would they, if the result of the questionnaires confirms their perception, adjust their offered tours to packaged tours. Also, did the Stichting recognise, that people are specially interested in the nature (flora and fauna) aspect of the tours and the possibility to watch seals. This also partly makes the experience tours so popular. Another outcome of the interview is that education is a very important aspect and will be even more important in the future, according to the Stichting. This would be combined with technology and one of the ideas is to place a small camera underneath the ship and in the bottom of the sea. This gives the Stichting more educational input and would be a great asset to the tours they offer now, especially for experience tours.

7.4.2 Customer's Opinion

Taking all this into consideration, the information above needs to be compared with the outcomes of the questionnaires. The following information is partly an addition to the information mentioned in sub-chapters 7.1 and 7.2 and partly a comparison between the Stichting's perceptions and customer's opinions. This total information together gives the possibility to discover gaps, while comparing supply and demand by using the gap model later.

Remarks

The total 224 respondents stated in the questionnaires that they were very satisfied with the tours of the Stichting. This is a bit of a contradiction to the fact that participation numbers decrease. It can therefore be concluded that the content and quality of the tours is not the reason for the decreasing numbers. However, there were some remarks in the questionnaires. Some stated that it is not clear what they should bring to the mud flat hike tours. Also, did people mention that the description about the tours on the website are misleading. The XXL tour sounds more tough than the tour to Ameland, which it is not.

Packaged Tours

Considering the packaged tours, 195 respondents said they do not want a packaged tour. Only 29 respondents would like to have a packaged tour. Interestingly, 12 people who wanted a packaged tour were between 49 and 64 years old. 10 people were between the 37 and 48. The other 7 who wanted a packaged belong to the lower age categories (see Appendix 3; table 11). This is interesting, as the age category 49-64 was also the biggest responding category. This same age category said no to packaged tours with 105 respondents, the biggest group again. Stichting Wadloopcentrum stated that they recognise there is a big demand for packaged tours. However, their customers say the opposite. The big majority do not want a packaged tour. The respondents who do want a packaged tour are all below 64, where only 1 respondent above 65 wanted a packaged tour. Thus, there is a gap in what the Stichting thinks customers want to have and what customers really would like. It can be concluded that a package tour, as described in the questionnaire, is not the solution for the decreasing participation numbers. However, as most of the respondents are in the age category of 49-64, it would be an idea to investigate the wishes and needs of younger participants in more depth. But, the great focus must lay with the biggest customer group, which are the people between 49 and 64. Also can a significant difference between the age categories be recognised regarding their wish for a packaged tours ($\chi^2=13,321$; $df=5$; $p=0.021$) (Appendix 3; table 10). This means that there is a low chance the results are due to chance, which is a positive outcome for the validity and reliability of the research.

Motivation for Mud Flat Hiking

Retrieved from the information in sub-chapter 7.2, the second biggest group said their motivation to book a tour was because of the activities within the tour, such as seal watching. This corresponds with the high numbers in participation in experience tours the Stichting stated. Which means that it is a fact that the experience tours are booked because of the additional activities, such as seal watching. Also, did the Stichting mention the importance of nature, which corresponds with what the respondents answered. As general reason to go mud flat hiking 33% says that nature is their biggest motivational factor. The second biggest motivational factor is to learn about the environment. This again corresponds with what the Stichting said.

Additional Services

Retrieved from sub-chapter 7.3, there is barely interest in the rentals of gear. Only 7% would like to rent gear. This can be considered as unexpected, as information retrieved from the interviews stated that the gear rental of the hotel owner is quite popular according to the Stichting.

7.4.3 Gap Model Analysis

As mentioned in the literature review, the gap model is a tool that shows gaps in service quality in 5 different categories. In the figure 9 below the Gap Model for Wadloopcentrum Pieterburen is shown.

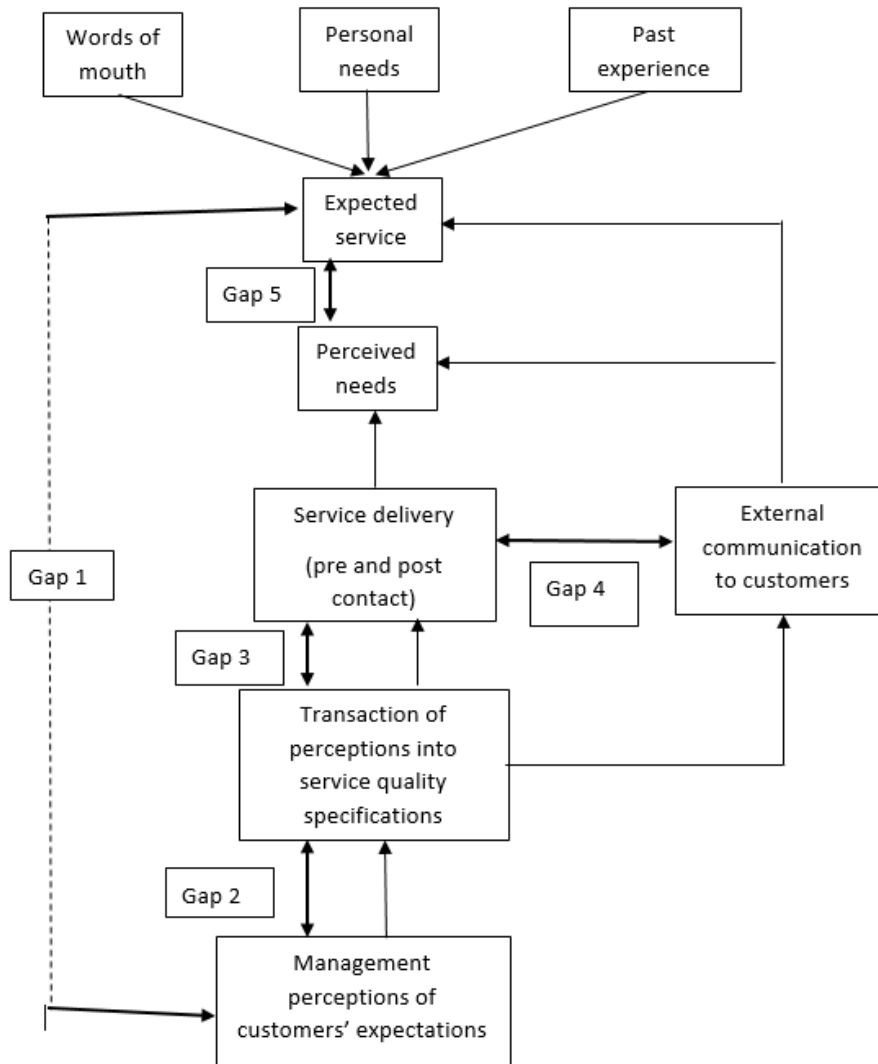


Figure 11 Gap Model Wadloopcentrum Pieterburen

Taking in account the supply of the Stichting and the demand of customers, the gap model will help to discover gaps between these two factors, however gap 3 is not applicable in this case. The information used in the below gaps is based on the analysis chapter.

Gap 1 and 5) Customers' Expectations vs. the Stichting's Perceptions of Customer Expectations

As can be seen in the figure above, the first gap occurs between the expected service of customers and the perceptions of managers on customer's expectations. This means for the Stichting: the gap between what customers expect and what the Stichting thinks that customers expect. From the results of the research that has been done in this report the following problems in gap 1 can be identified. First, the Stichting Wadloopcentrum Pieterburen thinks that customers want more experience tours.

However, as became clear from the questionnaire, customers like the normal tours much better than experience tours. Secondly, the Stichting expect customer seeking for gear rentals, however their customers had no interests in gear rentals at all. Thirdly, there is a large demand for packaged tours according to the Stichting. Nevertheless, the questionnaire resulted in the opposite: 87% of the respondents want the tours to stay how they are (see Appendix 3; table 11).

Gap 2) Translation of the Stichting's Perceptions Into a Product

The second gap, see figure 9, occurs between the perception of managers and transaction into service quality specifications. This basically means, how the Stichting translated their perceptions into products. The gap that occurs here is that the Stichting thinks that they need more educational aspects in their tours, still they do not apply this to their tours. This demand is also confirmed by the outcome of the questionnaires as education is a large demand. As a second point, the Stichting states that social media and technology play a great part in the communication to customers, however they again do not apply this.

Gap 4) External Communication

The fourth gap is the gap between the service delivery and external communication to customers. Within this gap several problems emerged. In the interview the Stichting stated that their social media account such as Facebook exists, however is not used. Furthermore, there is not much marketing done. The Stichting had the intention to hand-out flyers to kids on campsites, nevertheless the actual handing-out never happened. The gap that occurred is, that their social media and marketing does not reach their customers. Furthermore, as mentioned before, people found it unclear what they should bring to the mud flat hike tour and tours are not truly and fully described on the website.

Conclusion

In some ideas does Stichting Wadloopcentrum Pieterburen correspond with the wishes of their customers. The demand for educational aspects on the environment, experiencing nature and seal/bird watching according to their customers matches the high participation numbers in experience tours. However, clearly it can be said that a few important gaps have been discovered. Different than what Stichting Wadloopcentrum Pieterburen expected, there is no demand for more experience tours. Additionally, different from the Stichting's perceptions is that there is also no demand for gear rentals and moreover the tours should stay how they are, because the big majority has no need for packaged tours. The perceptions about educational needs and the importance of media and marketing are correct, but are not applied to the product, resulting in a second gap. Communication is the next gap, where the information on website is misleading and marketing does not reach customers.

8. Conclusion

To conclude, this research paper was requested by the Stichting Wadloopcentrum in Pieterburen and aimed to investigate the future of mudflat hiking. Specifically, the question of 'What are the impacts of changing trends in customer demand in mud flat hiking tours on the Stichting Wadloopcentrum Pieterburen in the next 10 years?' needed to be researched.

8.1 Customer characteristics

Regarding the characteristics of the customers of the Stichting in Pieterburen, it appeared that their largest target group involves 'elderly' people with an age of 49 years and older. Furthermore, they preferably travel with their family, friends or partner which is the reason why tours that are suitable for children are significant for the Stichting. Moreover, it occurred that most customers are doing mudflat hiking tours in summer. These last between two and four hours. Still, a difference in the preference of the lengths of the tours has been identified concerning the responses of the different age groups. While younger age groups prefer hiking tours between two to four hours, elderly people with an age above 65 years prefer to participate in tours that last longer than four hours. Thus, a differentiation in the target groups and the related products is necessary.

8.2 Customer motivation

Concerning the different motivations of customers to join mudflat hiking tours and to choose the Stichting as a provider, it occurred that customers are mainly motivated by the route of the tour itself. Also, it was stated that especially being outside in the nature and the physical challenge is a motivation and, the opportunity to spend time with family and friend is an important factor. Therefore, the customers can clearly be defined as eco- and adventure tourists according to their motivation. Besides, the Stichting in Pieterburen has been chosen as a provider over other competitors due to the availability of gift vouchers that were spread in the local area, but also their offered products were attractive to them.

8.3 Past and future trends

In order to stay competitive and increase customer numbers, the Stichting needs to be aware of past and future trends. Thus, this research explored that four major trends can be identified that have an impact on the Stichting. First of all, increasing numbers of elderly people and families participating in mudflat hiking tours have been discovered. This impacts the target group and the offered products of the Stichting as they need to be adapted to the age groups' needs and wishes. Secondly, the provision of additional services in tours was discussed, however did not lead to a clear outcome. Still, it appeared that more customers would rather not have additional services included in their tours, whereas some people did explain that they would prefer seal watching, educational services as well as pick-up services to be included. Thus, a gap of wishes appeared and it cannot be clearly defined if additional services are needed in tours or not.

Moreover, technology was stated as another impact on the provision on tours, as it can influence the safety and educational aspect of the tour, but also provides opportunities in providing new products and in marketing products on social media. Lastly, there is a trend for more innovative, educational and independent tours which the Stichting should take into consideration when keeping up with the wishes and needs of their customers.

8.4 Identification of gaps between service provision and customer expectations

To be able to answer the problem statement, gaps in the service provision of the Stichting in Pieterburen concerning past and current trends were identified. In the interviews with the experts, an increase in demand for experience tours was expected, however cannot be confirmed by the outcomes of the questionnaires. Also, the Stichting expects customers demand to increase for renting gear. Nevertheless, that was also not seen as an additional service wanted by the customers. Therefore, there is a gap between the expectation of customers perceived by the Stichting and the customer's real expectations. In addition, a gap appeared in the translation of perceptions into products as the Stichting is aware of the demand for educational aspects in tours and technological input concerning customer communication. However, they do not apply it to their products and services. As a result, they lack in the translation of demand into services.

Furthermore, another gap was identified regarding the service delivery and the external communications. It appeared in the interviews that the Stichting owns social media accounts, however does not use them. Additionally, they do not have a marketing strategy and not much marketing is done besides their website. Nevertheless, even on their website customer claimed a lack of information and service provision. Thus, the Stichting fails to reach their customers efficiently.

8.5 Identification of the impacts of changing trends in customer demand on the Stichting in Pieterburen

On the whole, the main impacts of changing trends on the Stichting identified in this research, are the different needs and wishes of the different target groups. Therefore, their tours are not adapted to the increasing number of families and elderly people participating in their tours. Moreover, there is a gap between customers if additional services should be included in tours or if they do not. The reason for this gap could not be justified within this project and leaves room for further research.

Nevertheless, other impacts of trends on the Stichting are the demand for innovative, educational and independent tours, but especially the use of technology and social media. It appeared that there is a large gap in the external communication with customers which is prospectively done by social media in the future as the past has shown that more people use websites and Facebook as a source for information. Also, literature has shown that customers get increasingly sensible concerning service provision. Therefore, it is a great impact on the Stichting that they are not able to translate their perceptions into products and services. A major influence has the educational aspect of their tours in this case as there is a very high demand for that additional service. As a result, to increase the customer numbers of the Stichting Wadloopcentrum in Pieterburen recommendations are given in the following to adapt their products and services to the changing trends in customer demand.

9. Recommendations

In the following recommendations are presented, in order to improve the services of the Stichting Wadloopcentrum Pieterburen and for further research on the topic of the future of mud flat hiking.

9.1 Recommendations for the Stichting Wadloopcentrum Pieterburen

1. In year 2017 a training should be provided for the mud flat hiking guides, where they get instructions on how to include educational aspects about flora and fauna in their guided tours.
2. On the website of the Stichting Wadloopcentrum Pieterburen, there should be introduced a tab with a special program and with suitable tours for families within the next 6 months.
3. On the website of the Stichting Wadloopcentrum Pieterburen, there should be a clear distinction between through/cross-over tours and experience tours (for example in different tabs), within the next 6 months.
4. A Facebook page should be launched within the next 6 months. Here information about flora and fauna, about the offered tours and interesting articles can be published. (Competitor analysis can be done here in order to find out what kind of posts are popular and get the most attention)

9.2 Recommendations on Further Research

1. More research could be done regarding young people and their demand in mud flat hiking tours and how the younger generation can be attracted. With that information, this target group can be attracted more and a shift to that target group would be possible.
2. In this research, it was identified, that most people do not want additional services. However, some people would like additional services. Further research should be done on how these two target groups vary and how each of the groups can be attracted in the best way.
3. Wadloopcentrum Pieterburen thinks that there is a high demand for experience tours, however, they do not adapt that in their products completely. Further research can be done regarding the organisational structure of the Stichting Wadloopcentrum Pieterburen in order to find out, why the tours are not adapted (Gap Model Gap 2).

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