

Degree Thesis

Adoption of EBPP by DNA: Are Customers Satisfied?

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Degree Programme: International Business

Date: 1st Dec 2014

DEGREE THESIS	
Arcada	
Degree Programme:	International Business
Identification number:	11702
Author:	Amatya Rojak
Title:	Adoption of EBPP by DNA: Are Customers Satisfied?
Supervisor (Arcada):	Sveinn Eldon
Commissioned by:	
<p>Abstract:</p> <p>Customer satisfaction is important for any type of business. Today's world is changing with introduction of new systems and technologies. Many companies are adopting computer and internet based systems. One of recently adopted system is EBPP. It is thought to be more efficient and ecological way of presenting invoices to customers and collection of payments. DNA one of the major telecommunication company has recently adopted EBPP system. From this study it can be seen that how this new system impacts positively to the level of customer satisfaction. There are certain factors which can affect level of customer satisfaction. Changes always bring positive and negative responses but yet change is vital. The key to success is to understand customers and to manage their responses in a way to bring maximum level of satisfaction and opting for required changes.</p>	
Keywords:	customer satisfaction, e-invoicing, DNA, EBPP,
Number of pages:	41
Language:	English
Date of acceptance:	

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1. INTRODUCTION

Means of communication is one of the important aspects for human to interact with each other. With the knowledge they have learned, it has also been possible to interact through electronic medium. For examples telephone, mobiles, e-mail, text, internet calls etc. and DNA is one of the company that provide such telecommunication services in Finland. But business is business whether it is B2B or B2C, they need to take compensation for the services they have been providing to their clients. All the business organizations deals these kind of process first by sending invoice to the customers and accordingly customers will pay the bills as the information provided on the invoice. This is the basic way how these service providers collect the compensation for their service by sending the invoice to their customers. With the development of technology, possibility increases to do Electronic Bill Payment as well as Electronic Bill Presentment. Recently, DNA Oy has adopted EBPP system. The invoicing system they had been using so far was the traditional paper based system where they send the invoice to their each and every customer in paper format. The clients of DNA are used to it, but a sudden change of paper based invoicing to electronic invoicing might create trouble to the customers who are used to traditional one. The trouble hence create might affect the satisfaction level of the customer. This thesis will try to find out whether the customers of DNA Oy. are satisfied about the change of their billing system i.e. adoption of Electronic Bill Presentment and Payment by DNA Oy.

1.1 Background

Telecommunication core service normally comprises of networks in order to use mobile phones, broadband etc and support service normally do the function of supporting and facilitating core service (Vargo & Lusch, 2004a, b).

Electronic bill presentment and payment (EBPP) is a technology solution that allows billers to present bills electronically to the consumers and, it also enables consumers to initiate electronic payments. In general, EBPP consists of two sectors: electronic bill presentment, which is focused on electronically transmitting bills from businesses to

consumers; and electronic bill payment, which is focused on electronically conducting payments from consumers to businesses.

In near future EBPP will eventually become popular among billers and consumers. Peter Kight, head of Check Free predicts that E-billing and payments are going to be available all over the world and enjoyed by both billers and consumers as the whole world is enjoying e-mail now. But for the moment, it appears to have “chicken-and-egg” problem that badly affect the industry: consumers do not want to sign up unless lots of companies send bills online, and businesses do not want to send bills online unless lots of consumers sign up. Among Nordic countries who widely adopting EBPP for B2C, the progression in Finland is slow as compared to other Nordic countries like Denmark, Sweden and Norway.

1.2 Problem Formulation

B2B market in Nordic region had successfully adopted the EBPP with an excellent result. Based on the Itella's Information , the adoption of EBPP for B2C has also spread rapidly in Nordic Countries. Norway and Denmark are on a lead, Sweden is also not far from them while surprisingly Finland stays behind. But Finland is also progressing slowly and in this course, DNA Oy. is one of the companies who has recently abandoned their traditional paper based invoicing system and adopted EBPP for consumer billing. The current situation leaves us with an interesting question:

- Are the customers satisfied with the sudden adoption of EBPP (Electronic bill presentment and payment) by DNA Oy?

1.3 Purpose

The consumers of DNA Oy is wide, if we categorized it can be categorized in various group, such as Landline users, mobile users, internet users, broadband users etc and similarly it can be categorized according to gender, age, geographical location and others. It is easier for younger generation to adopt new technology while opposite for the older generation who are in their 50s of 60s already. According to the statistic of Finland about two third of the population are online shoppers which means over a

period of one year those two third of the population have bought or ordered something via internet. This statistics explain that citizen of Finland should be capable of handling internet on regular basis. But the problem arise here, what about one third of the citizen who do not use internet? Even if they don't use internet at all, they still use mobile phone, landline phones and broadband as a means of communication. How about the people who still visit Banks for their each transaction? How about the old citizen who cannot upgrade themselves with technology such as internet anymore? So the main purpose of this thesis is to find out whether the overall customers of DNA Oy. are satisfied or not with the current adoption of Electronic billing system. In a mean while, this thesis will also try to categorize the group that are highly dissatisfied with it along with the possibility to further research on the topic to those who are interested in it.

1.4 Limitation

This thesis is limited to the adoption of EBPP by DNA Oy. While trying to discover the customer satisfaction after the adoption of EBPP by DNA Oy, and hence the target group of the survey only covers customer of DNA Oy.

2 THEORETICAL FRAMEWORK

2.1 Satisfaction

2.1.1 Definition

Satisfaction can be defined as judgment of a customer which involves evaluation and comparison of the product's actual performance to its expected performance. This concept was then examined by Hertzberg who identified satisfaction or dissatisfaction

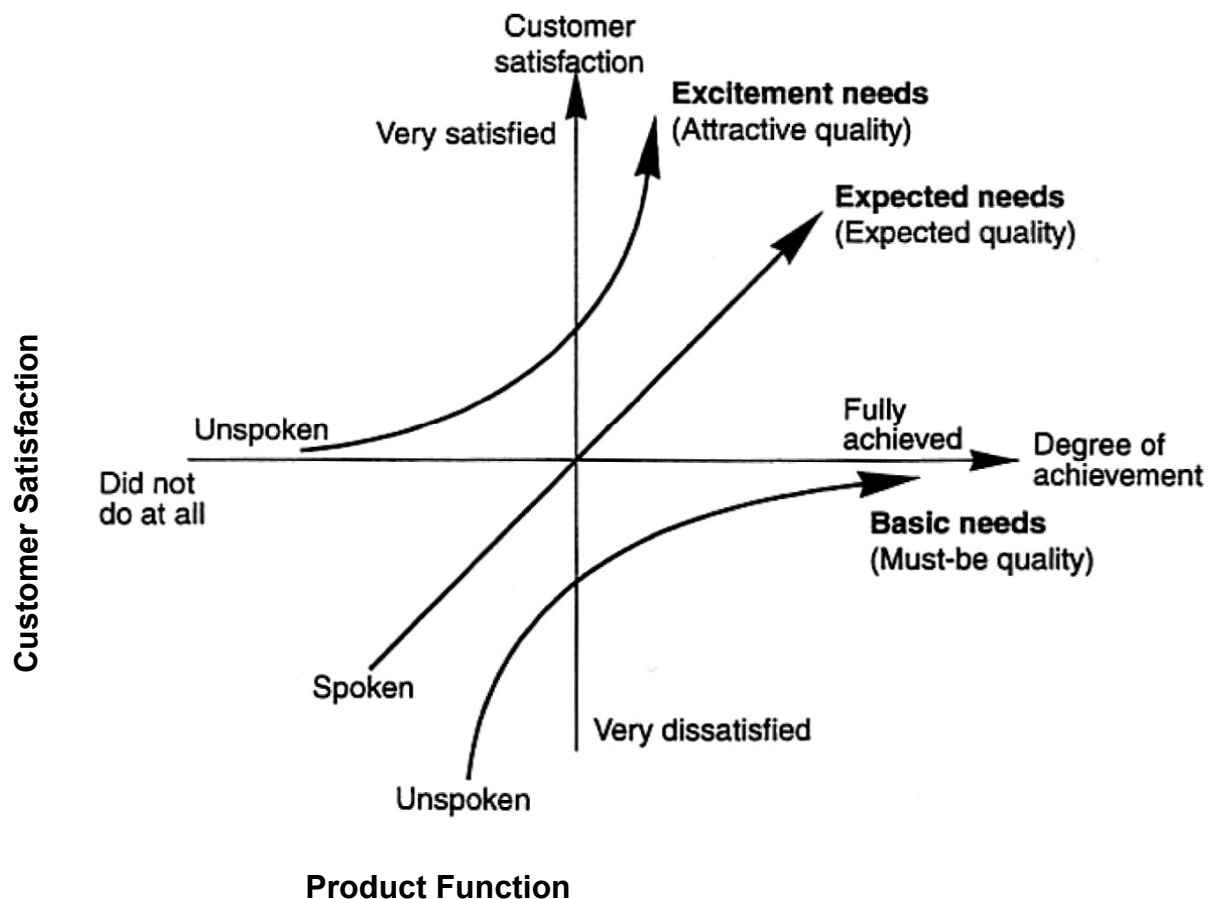


Figure 2-1 The Kano model of Customer Satisfaction (Source: Kano et al. p282)

as a relationship fulfilled or unfulfilled needs. The further research on consumer behavior help in the growth and development of research around satisfaction. An experiment conducted by Howard and Sheth. 1969, proved that when a customer's experience is less than what they expected it to be, then the resulting outcome of satisfaction will be lower than what they might have hoped for. This study holds importance because it stressed the importance of looking at the consumer's level of understanding, reinforcement frequency and overall value of purchase. Similarly, Kotler defined satisfaction as person's feelings of pleasure and disappointment that results from comparing a product perceived performance to their expectations. If the performance falls short of expectations, the customer is dissatisfied and if it matches the expectations, the customer is satisfied while if the performance exceeds expectations, the customer is highly satisfied. (Kotler et al p.164). Following the satisfaction as an ability to satisfy the needs and expectations of the customers, Noriaki Kano introduced a new model of customer Satisfaction as shown in Fig 2-1

The theories of satisfaction that is relevant to this study are expectancy-disconfirmation paradigm and the comparison-level theory. Oliver examined expectancy, disconfirmation, and other performance-specific measure resulting the expectance-disconfirmation theory and the comparison level theory (also referred as social exchange theory). The foundation of his study was the resultant of several previous results on satisfaction. The expectancy-disconfirmation theory posit that consumer's level of satisfaction is determined by consumer's previously held expectation with the performance they perceived from a product. If the performance they perceived is higher than their expectation then positive disconfirmation will occur which will results the increase in satisfaction. Two important aspects to this theory are Assimilation and Contrast Effect. Assimilation occurs when consumer rely heavily on their expectation during their evaluation while contrast effect occurs when they exaggerates the actual level of performance as shown in Fig 2.1.1.2

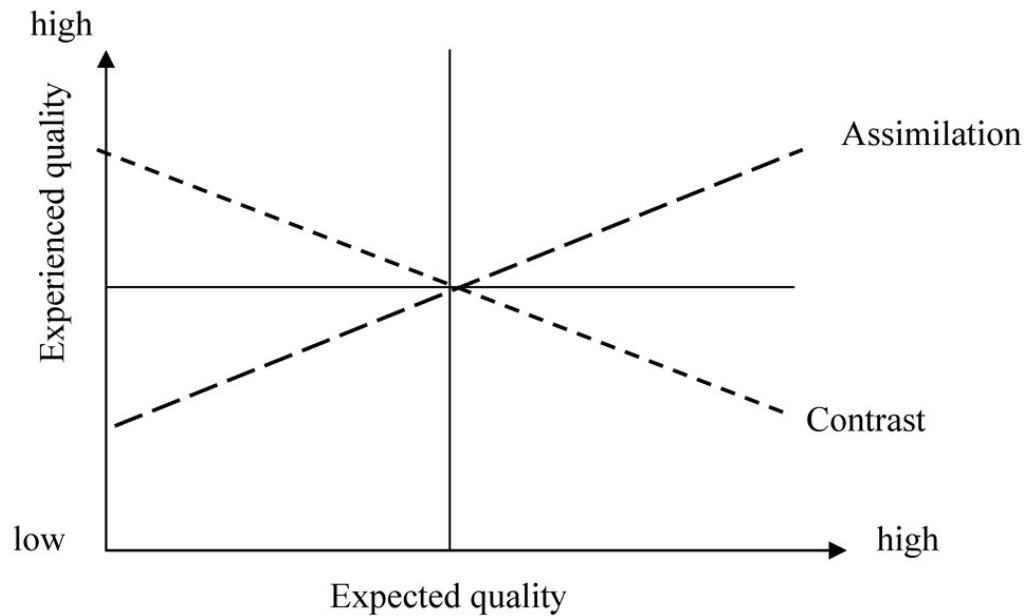


Figure 2-23 *Showing Assimilation and Contrast Effect* (Source: Anderson 1979)

Comparison-level theory states that the level of satisfaction is determined when actual perceived level and comparison level are evaluated. The comparison level is the standard that the customer will evaluate the attractiveness of relationship (Thibaut & Kelley, 1959, p.21). A customer who received repetitive negative outcome in service relationship will move to a new company with less comparison level and shows a higher level of satisfaction with little change in the service outcome quality. (Ganesh, Arnold & Reynolds, 2000).

2.1.2 Determining Customer Satisfaction

The role of expectation in determining the level of satisfaction is rather tricky one. There might be cases where customers tends to show satisfaction or dissatisfaction even without the existence to expectations (McGill & Iacobucci, 1992; Yi,1990). Hughes(1991,p.168) experience from her research on tourist satisfaction that even though the customers did not fulfilled their expectations, number of them were relatively satisfied. Similarly, Yuksel & Rimmington (1998) also experience the satisfied customers even the service performance does not meet their initial expectation. These studies cast doubt on the logic of expectance-disconfirmation model.

So the possible explanation may be in certain situation some consumers may use minimum acceptable as a comparative standard and it may not create dissatisfaction even it is below the predicted expectation. Latitude of acceptance or zone of

indifference concepts might help to explain. This concept suggests that purchasers are willing to accept a range of performance around a point estimate as long as the range could be reasonably expected (Oliver, 1997). If customer have some level of tolerance, few level of service less than expected does not generate dissatisfaction (Saleh & Ryan, 1991). The performance perceived within the zone of indifference is acceptable and probably does not cause much attention for evaluation process while perceived performance outside the zone of indifference is unusual and cause a strong attention to be directed toward the evaluation process resulting a negative emotional response (Woodruff et al., 1983).

So, What determines Customer Satisfaction?

- ❖ Service Quality : The better the service quality the perceived performance most likely to meet and exceed customers expectation hence more satisfaction.
- ❖ Price: More fair the price is more probability to attain some level of satisfaction.
- ❖ Product's Service or features: The features and services of the product will mostly attain the attraction but at some circumstances and some point it also affect the satisfaction process. So, the better the product's service and features are it is more likely to satisfy customers.
- ❖ Companies popularity and Goodwill: It indirectly help to attain satisfaction within customer. As we know individual customers have different satisfaction factors, some may just be satisfied because of the companies goodwill to their customers or some may be satisfied just be able to buy certain product of certain brand.

2.2 Service Quality

Awareness of the importance of service quality has increased rapidly. It is difficult to mention any company for which service matters are not important. Often several services are associated with the goods and these services are as important as the product itself. The cost for poor quality services are even larger than those for goods. Kasper

and Gabbott (2006, p186) define 'Service quality as a complex and short concept which refers to some attribute of what is offered, whereas satisfaction or dissatisfaction refers to a customer's reaction to that offer'. Similarly, (Kotler and Keller 2009, 169)defined, service quality as the overall sum of all the features and characteristics of service that bear on its ability to satisfy stated or implied needs'.(Kotler and Keller 2009, 169)

2.2.1 Service Characteristics

It is very important to take good care of the characteristic of service while designing, marketing, producing and delivering services. There are some characteristic of services that differentiate services from goods.

- ❖ Intangible in characteristics hence might be difficult to explain and specify for a supplier and sometimes difficulty accessing by customer.
- ❖ Customer might often take part in production of a service.
- ❖ Service cannot be stored or transported. i.e. they are consumed by large group at the same time as they are produced.
- ❖ No customer will become owner of something when they buy services.
- ❖ Services cannot be tested by customer before they are bought.

"The moment of truth" a concept introduced by Norman (1984, p 267) is a moment when the service supplier and the customer meet face to face. It is also a moment of possibilities since the suppliers have high chance of convince the customer but at that exact moment it is really very important to realize the service quality is related to convince the customer of service excellence. The most perfect system for delivering service is worthless if things do not work at the moment of truth.

Quality of a service has several dimensions: (Zeithaml et al., 2006, p 106)

- ❖ *Tangibles*: It refers to physical environment in which the service is presented i.e. organization, equipments and the personnel.

- ❖ *Reliability*: The consistency of performance and dependability e.g. punctuality and the correctness of service, information and invoice procedures.
- ❖ *Responsiveness*: It can be understood as the willingness to help the customers.
- ❖ *Competence*: It is the possessing of the required skills and knowledge to perform the service.
- ❖ *Courtesy*: It generally refers to the supplier's behavior e.g. politeness, consideration and kindness
- ❖ *Credibility*: It means trustworthiness, believability and honesty of the service provider.
- ❖ *Security*: It means freedom from danger, risk and doubt.
- ❖ *Access*: It is the ease of making contact with the supplier e.g. the time the shop is open.
- ❖ *Communication*: It refers to the ability of talking in a way which is understandable to the customers.
- ❖ *Empathy*: It deals with the interest and possibility of becoming acquainted with the role of the customers.

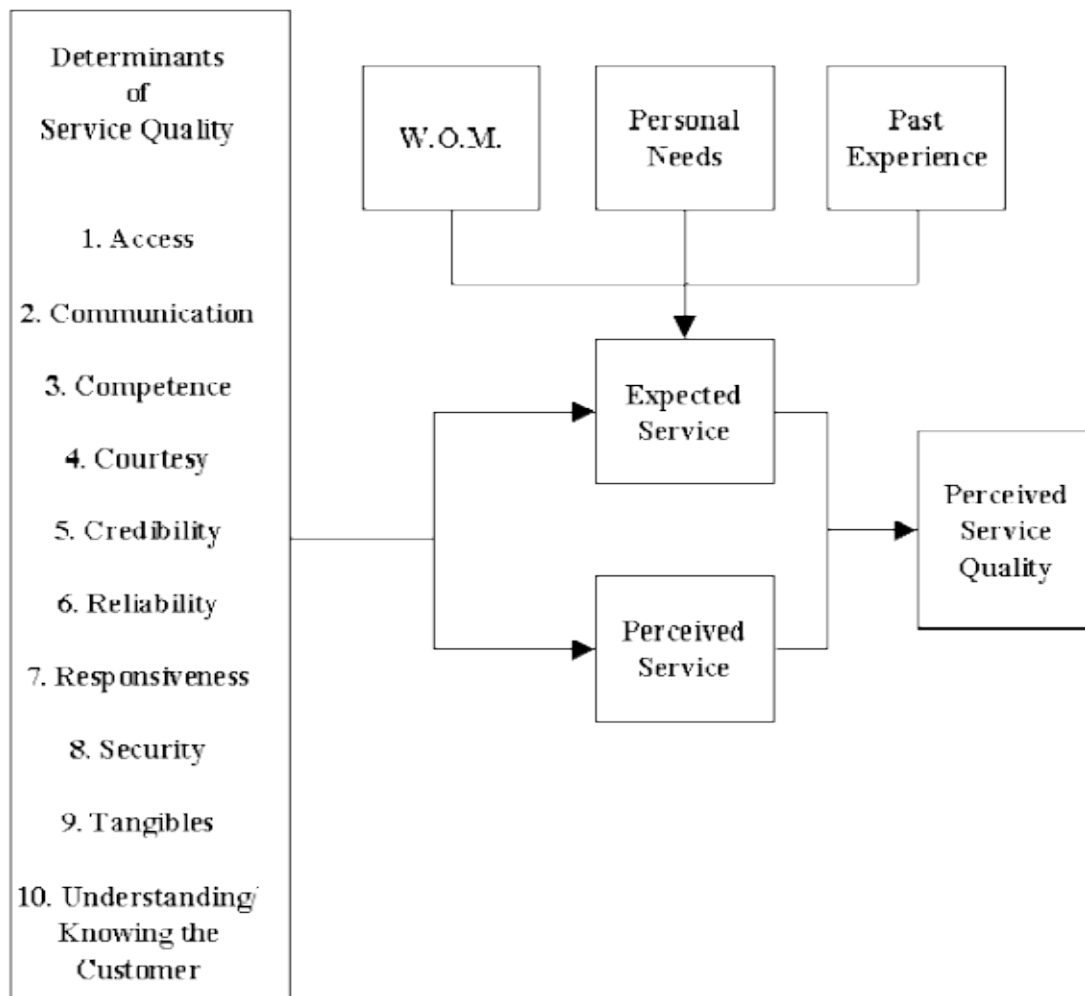


Figure 2-3 Customer assessment of Service Quality (Source: Zeithaml et al. 2006,106)

2.2.2 Models for Service Quality

2.2.2.1 Grönroos' Service Quality

The model described by Grönroos relates the service experienced by the customer to is expectations. And the service experienced by the customers depends on the following two dimensions:

- technical quality:
This dimension is related to the results of the service or "what" has been provided.

- functional quality

This dimension is related to the way the service has been delivered or "how" has the service been provided.

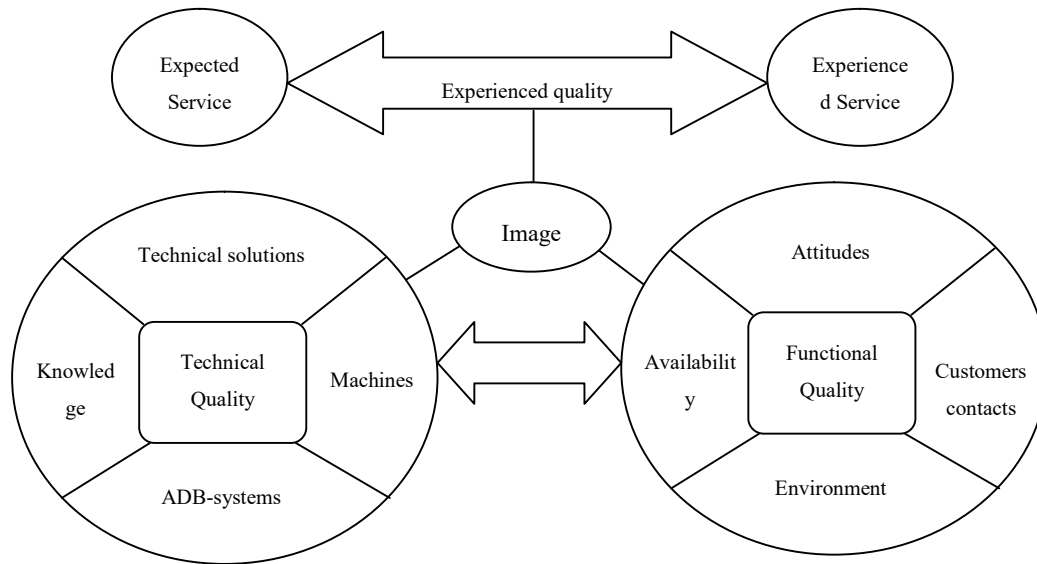


Figure 2-4 Grönroos' Service Quality Model (Source From Grönroos 1987)

2.2.2.2 The Gap Model

A model discussed by Zeithaml et al. 1990, explaining causes of customer dissatisfaction is called The Gap Model. It points up the path from customer expectation to customer experience. Zeithaml et al 1990 discussed about different possible gaps in the model he brought forth to.

Gap 1 : Between customers' expectation and management's perception of those expectations.

When executives do not understand what customers consider high quality to be, this gap arises. This gap is in general considerably larger in service companies as compared to manufacturing firms. Lack of marketing research, inadequate upward communication and too many levels of management might be considered as the reasons for such a gap to exist.

Gap 2: Between management's perceptions of customer's expectations and service quality specifications.

This is a large gap that is found in most of the companies. It arise due to the lack of commitment of top management to service quality which is why customers expectation cannot be matched up with their demands. Inadequate management commitment to service quality, Perception of infeasibility, Inadequate task standardization and absence of goal setting can be the reason for this gap.

Gap 3: Between service quality specification and service delivery.

Even if management really does understand customers' expectation and set appropriate specification, the service performance gap is caused by employees who are unable or unwilling to perform the service at the desired level. There might be a large variability in employee performance, some of the reasons for this gap might be a role ambiguity, role conflict, poor employee job fit, poor technology job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

Gap 4: Between service delivery and external communications to customers about service delivery.

This is a gap that appears between what the firm promises about a service and what it actually delivers. Customers expectations are affected by media advertising and other forms of communication so accurate and appropriate company communication, advertising and public relations omits such kind of gaps. The reasons for such a gap to create are

- Inadequate horizontal communication among operations, marketing and human resources i.e. between advertising sales people and operations.
- Propensity for overpromising,

Gap 5: Between customers' expectation and perceived service.

The result of Gap four creates this one. When service provide by the company matches or exceeds customers satisfaction then it can be called as a good service quality. How costumers perceive the actual service

performance in context of what they expected always determines the quality of service.

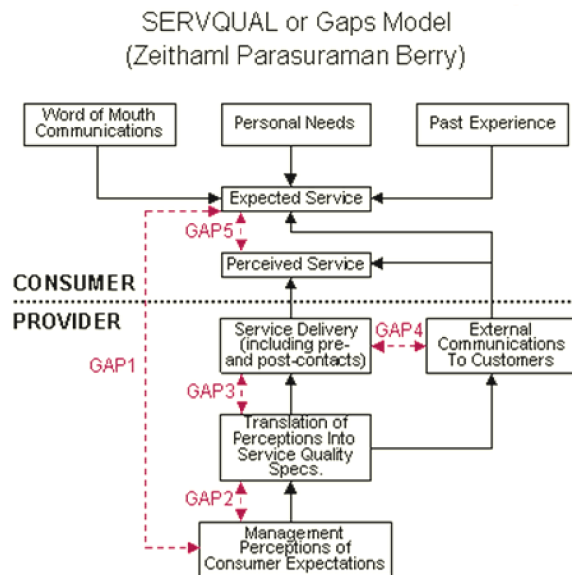


Figure 2-5 The Gap Model (Source : Zeithaml et al., 1990)

2.3 Electronic Invoicing

Reaching customers, building tighter relationships, fostering loyalty, and selling more to the customers are important market drivers in the B2C market. And by using electronic invoicing sellers may provide customers with convenience and value while they are getting closer to them. These capabilities of personalization, cross selling, and up-selling are very important in the B2C market. (Patel, 2000)

Basically, electronic invoicing means the use of softcopy of invoices rather than using hardcopies. Using internet, intranet as a medium, these softcopies of invoices can be transmitted to various electronic devices as of user choice. The conduction of invoice over the internet means quick, cheap and easy way of presentment and posting of invoices to desire location. The presentment of invoice can be understand as hosting of static statement invoice data. And as for the medium, it can be send through e-mail as a 'pdf' attachment or it can also be accessed by the customer separately if there exist a

web server hosted for its purpose. It also allows individual customer who are interested to built their own customized user interface in web.

However, according to Patel, most of the electronic invoices that has been in practice are seller-focused and hence does not allows any customization. These business organization either uses an in-house solution or outsources the solution of a billing site where multiple payers access their bill.

2.4 Driving Forces

In today's market customer, where techniques like Just in Time and Total Quality Management are in practice, higher level of responsiveness, efficiency and recognition is required and the old way of doing business seems useless. Lawrence et al explains that these higher level of demands can only be meet effectively with the use of computer to computer system. Fredholm added that almost all the paper processes are replaced with electronic form, it doesn't not only shortens a duration of correspondence but also provide other different relevant information at the same time. Also, Lawrence and Wenninger talked about the efficiency of electronic invoice system positively. According to them the transportation of paper documents from one location to another location takes a big deal of time while going through different billing and payment cycles and by simply maintaining all the information from paper document to electronic form, the whole lead time collapsed like nothing.

Moreover, another disadvantage of using paper invoice is the risk of losing or misplacing the invoices. Great deal of time, money and effort might be needed to track it down. While there is no risk of losing electronically stored invoices and can be tracked down from any geographical location making it easy to deal with customers who are seeking for it without any delay. Fredholm states that the customers are the ones who gain the most because there is no delay in receiving information as well as they can also receive payment reminders immediately and automatically. Other benefits of using electronic invoicing are decreased invoice handling cost, reduced printing cost, postage costs, faster dispute decision, lower overall cost of payment and is some cases accelerate the cash flows.

2.5 DNA OY

As per (dna.fi 2014) DNA is a Finnish telecommunications company providing high-quality voice, data and TV services for communication, entertainment and working. DNA's 3G network already reaches five million Finns and is expanding further and 4G network is being made available specially in urban areas. DNA has divided its business in to consumer based and corporate based business. In 2013 DNA recorded a turnover of EUR 766.4 million and operating profit of EUR 43. 7 million. DNA has more than 3 million mobile communication and fixed network customers. DNA and WELHO are registered trademarks of DNA ltd.

DNA was established in 1999 from three mobile communication co-operative companies whose task was to support and expand the business operation of the Finnet Group's telephone companies. These companies gradually transformed into the group's mobile communication operations company, DNA Finland ltd.

According to DNA billing page DNA Welho bill can receive email, as e-invoices or paper mail but as per new rules paper version bills need extra 1.90 euro unit price. In e-invoice you can use your own bank. And it is also mentioned that in future customers will receive e-invoices directly to the bank.

3 RESEARCH METHODOLOGY

Since, there were not any previous research conducted in this subject DNA Oy, the secondary data were not available. Thus, primary data was used in this thesis. The necessary primary data were collected through questionnaires and analyzed through quantitative methods.

3.1 Quantitative methods

Quantitative methods emphasize on objective measurements and numerical analysis of data collected through polls, questionnaires or surveys. Quantitative research focuses on gathering numerical data and generalizing it across groups of people. (Babbie, Earl R 2010). The statistical analysis of the data is illustrated with the help of charts, graphs and diagrams.

According to Thomas, 2003 Quantitative methods focus on measurements and amounts like more and less, larger and smaller, often and seldom etc of the characteristics displayed by the people and events that the researcher studies.

Glesne and Peshkin, 1992 mentioned that in quantitative research, the researcher role is to observe and measure, and care is taken to keep the researchers from “contaminating” the data through personal involvement with the research subject. Thus researches are objective.

3.1.2 Questionnaires

Among other methods of collecting primary data, a questionnaire was used to collect the required data for this survey. Questionnaires are one of the most commonly used survey data collection method. It is defined as a techniques used for surveys where the person answering the question actually records their own answers (Kervin,1999, p280).It was also defined as a method used to include both interviews that are administered either face to face or by telephone (Bell 1999, p280). And again it is also a method of collection data which include all techniques of data collection in which each person is asked to respond to the same set of question in a predetermined order

(deVaus, 2002, p280). Therefore, this method basically includes both structural interviews and telephone questionnaires similarly it also includes those responses which are answered without the direct present of an interviewer.

3.2 Sample

Since the topic of thesis is related with changed of invoicing system of DNA OY, the population pool of this research are all DNA users. The population pool is scattered all around Finland. There was not enough resources available to reach whole population so the sample was selected from few place inside Helsinki Region. It was more convenient to collect data from people who belong to certain group or area rather than collecting from individual sample. As questionnaire was designed through web page surveymonkey.com, which is online survey method, it was important that sample population are regular users of internet. Hence, author decided to choose certain groups who could be easily reached through social network. Students group are regular users of internet and they are in general more positive and responsive towards these kind of research, sample was collected from 2 different student housing (HOAS). Thus tenants of HOAS Pekankatu and HOAS Jokaneimi were chosen as population sample.

3.3 Data collection

Questionnaire was prepared with the help of web page surveymonkey.com, which is free online survey software which can be used to create, design and customize questionnaire as desired by user. There were total 13 close end questions. Among them few were related to occupation, age and gender. Remaining questions were directly related to research topic, invoicing and customer satisfaction.

Total of 300 questionnaire were distributed. Among them 127 questionnaire were distributed to tenants of HOAS Pekankatu in summer 2014 and 173 questionnaire to tenants of HOAS Jokaneimi in fall 2014. Only 53 filled questionnaire were collected and analyzed in this thesis.

Filled questionnaires were then converted into numbers and analyzed and presented through different charts and figures.

4 DATA PRESENTATION AND ANALYSIS

In this section data collected through questionnaires from respondents have been presented and discussed through different figures.

4.1 Occupation

The first question on the questionnaire was regarding the occupation of the respondents.

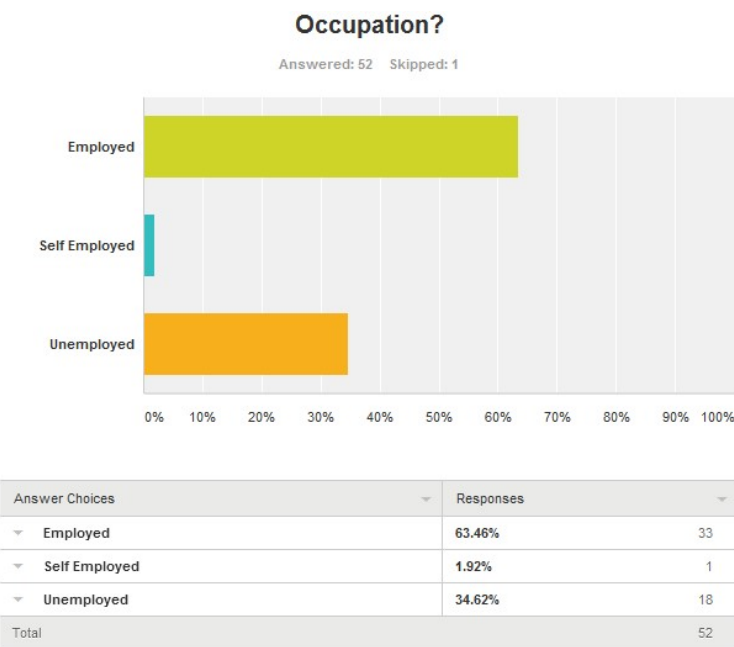


Figure 4-1 Respondents according of occupation

In the figure below, statistical data recovered during survey states that out of 53 total respondents, the total number of employed candidates was 33 which was 63.46% of the total. On the contrary, the number of unemployed respondents was 18 which was 34.62% of the total. And finally, there was 1 person from the self employed side as well.

4.2 Age

As mentioned above, this survey was held around two different student tenant committee thus most of the respondents who had replied to this questionnaire were student.

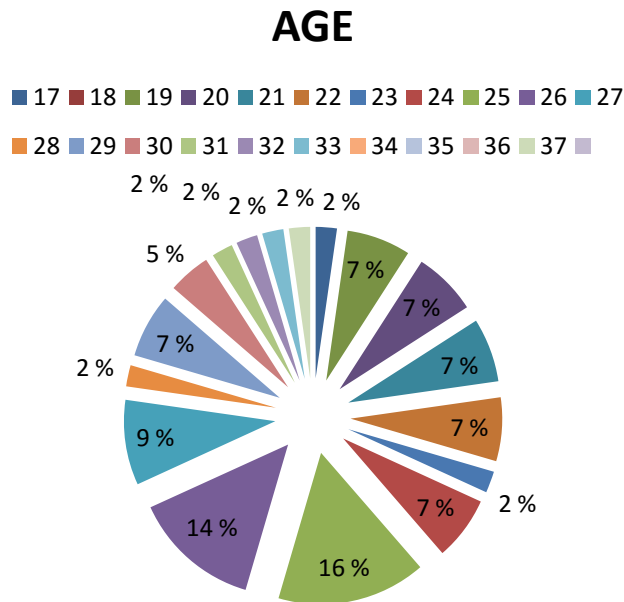


Figure 4-2Respondent according to Age

The youngest respondent was found to be 17 years old whereas the oldest was 37. Figure below shows a pie-diagram of number of respondents with their respective age group.

4.3 Gender

Large variation of gender among respondents was noticed during the survey. The number of female respondents was found to be rather low as compare to the male respondents. The total number of female who took participate in this survey by filling up the questionnaire were observed to be 13 which covers 28% of total. On the other hand, male respondents were observed with majority of 72% and total no of 33. Whereas there were few respondents who do not want to disclose their gender identity so they didn't reply to question regarding gender.

Gender

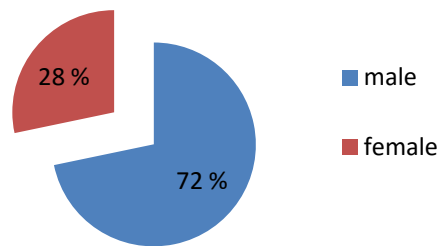


Figure 4-3 Respondents on the basis of Gender

4.4 Service Length

In order to distinguish whether the respondents were new customer of DNA Oy or are they old customer of the company the above question was present the questionnaire. It is important to know since customer expectation and the level of satisfaction from old and new customer's point of view would be relatively very different.

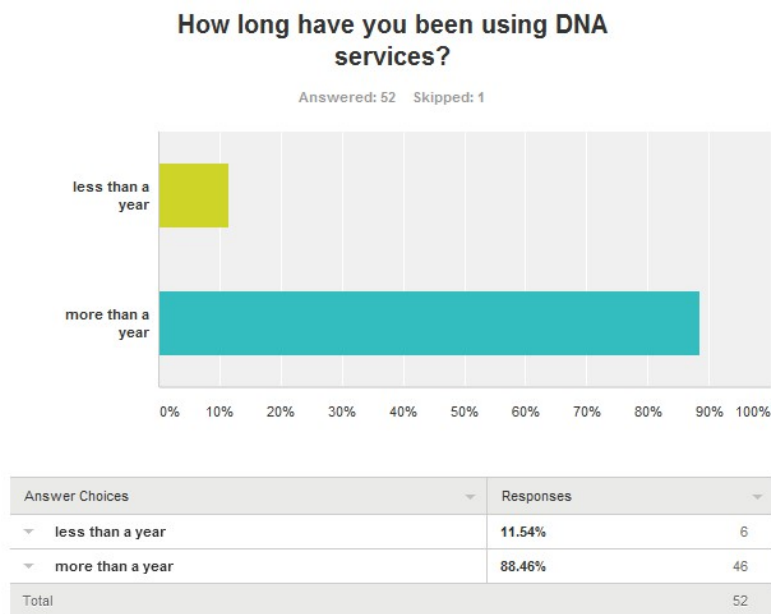


Figure 4-4 Length of using DNA service

From the above figure it can be seen that about 89% of respondents were old customer of the company.

4.5 Type of Service

DNA Oy. offers different variety of services to their customers that includes broadband for home use, mobile broadband, TV and entertainment services and phones and subscriptions as per their client request. It is known fact that the quality of service determines the satisfaction level, but number of services and types of services one use might intervene with the invoice they get. Since, the entire invoice doesn't come as a single invoice, the use more variety of services will leads to more invoices hence to understand the circumstance of the client this question was inevitable.

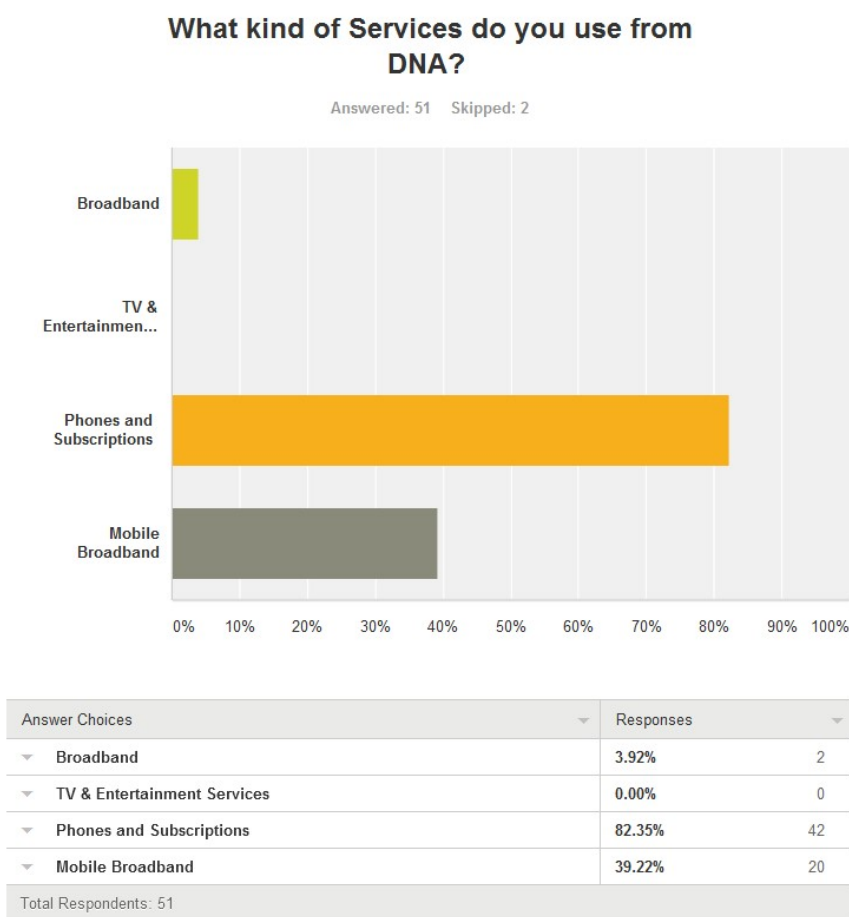


Figure 4-5 Types of services used

From above figure it can be seen that approximately 82% of respondents uses phone and subscription and 39% of them uses mobile broadband where as 4% use broadband internet. In compare to the mobile broadband and phone subscription other service users are relatively low.

4.6 Accuracy of Invoices

No one likes to pay for the services they haven't used or to pay a bill more that what one has used up. This might be a big threat for company as it causes dissatisfaction for the customers. Company can lost customers trust and even may lost customers. It affects goodwill of the company as well. As reference, suggestion are very effective in terms of marketing, it might Effects Company for long term.

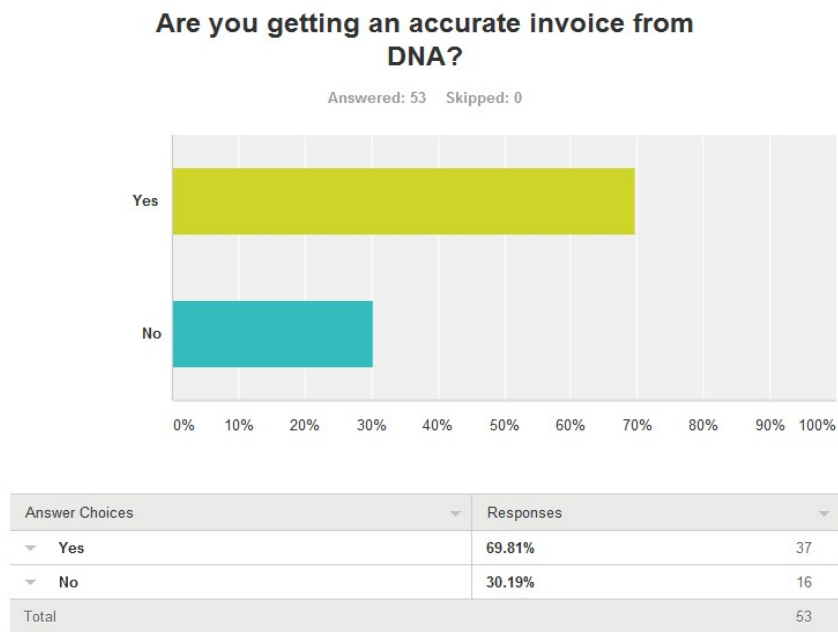


Figure 4-6 Accuracy of DNA invoices

The statistical data form survey shows that majority of respondents i.e., 70 percent were paying exactly for what they are using but still large number of respondents with about 30 percent of total are not getting an accurate invoice.

4.7 Preference for type of invoicing

The main focus of this survey is sudden change of invoicing system from paper to electronic base. So the data acquired from this question is very crucial. It is important that companies specially service oriented one, need to go along with customers choice. But at the same time it is also very important to keep updated with new technology in order to stand its ground in challenging market. It was a very crucial step DNA Oy took in order to survive in a market among other rival companies.

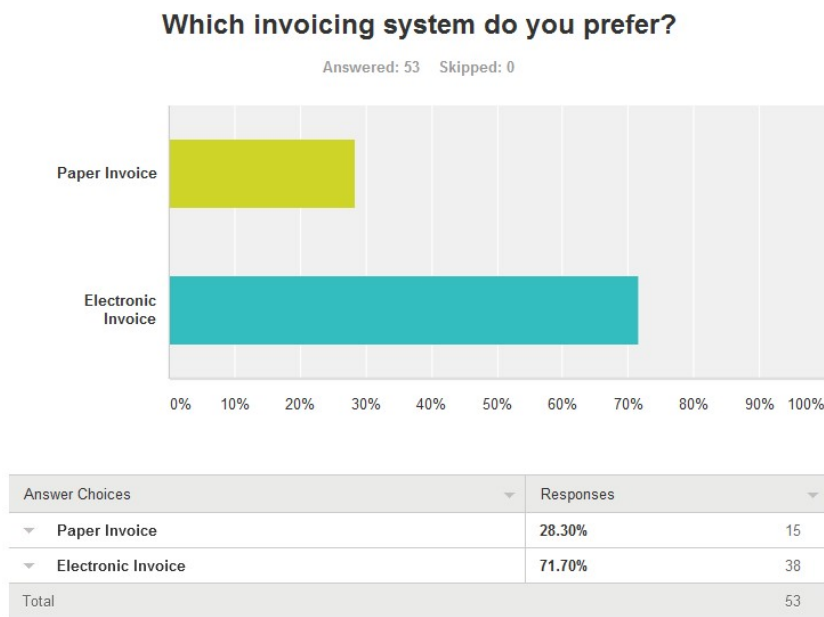


Figure 4-7 Preference on type of invoicing

From the above figure it can be seen that even though electronic invoicing system was adopted recently by DNA, approximately about 71 percent of total respondents prefer new e-invoicing system rather than old paper base invoicing system. A simple conclusion can be drawn from this data. People like electronic invoices over paper invoice, it might be because of its advantages or might also be just because it is a new technology and is interesting.

4.8 Single or Multiple invoices

It will be easier for user to pay bills if there is a single invoice for all the services. It is rather annoying if one has to pay the bills more than once for using different services through a same company.

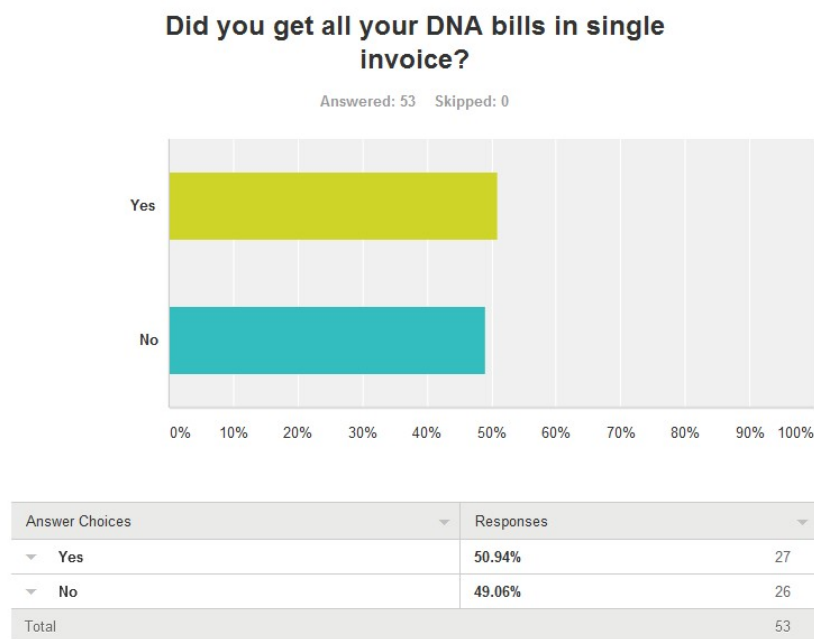


Figure 4-8 Single or multiple invoices from DNA

The survey results with almost fifty-fifty votes from the respondents. Although, the number of respondent receiving single invoice and multiple invoice are same, it is assumed that most probability maximum number among single invoice receiver are single service users. But by looking at people getting multiple invoices we can be concluded that users do not get a single invoice from DNA, instead they get multiple invoices for different services.

4.9 Number of Invoices in a month

The more invoices one get, the more it is difficult to sort and manage, while less is easier. In terms of satisfaction, we can assume that more invoices means lots of efforts and less satisfaction, similarly, less invoice means less effort and increase in user expectation and satisfaction.

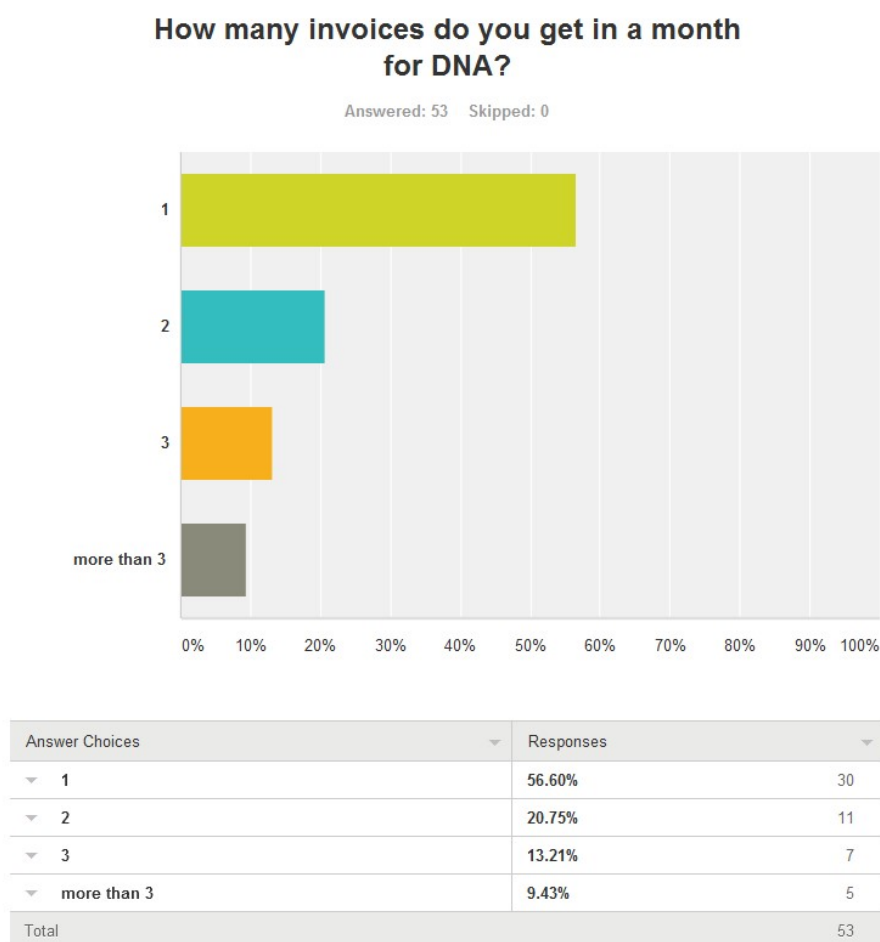


Figure 4-9 Number of invoices from DNA in a month

The survey result shows about 56 percent of respondent get single invoices. 20 percent gets 2 invoices, 13 percent gets 3 invoices and around 10 percent gets more than 3 invoices in a month from DNA.

4.10 Problem of sorting paid and unpaid invoices for DNA's paper invoices.

Earlier Paper invoice was the previous popular means of Presentment and Payment. People had been using it for many years. DNA had been using it since it was formed. It had been a very important aspect of financial communication between customer and company for very long time.

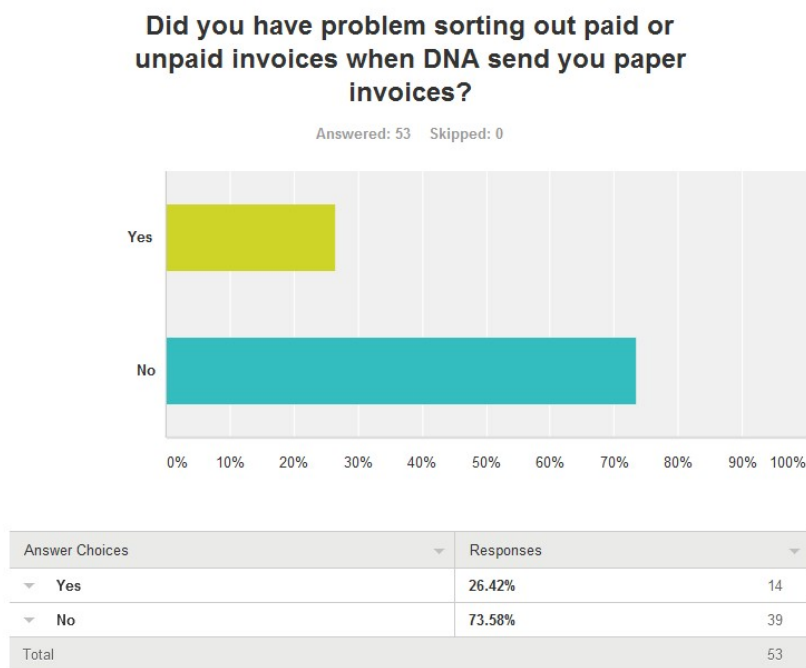


Figure 4-10 Problems of shorting paid and unpaid paper invoices of DNA.

The statistics from the survey explains that there was not much problem on the customer side dealing and taking care of the paper invoices. About 74 percent respondents says they didn't have any problems in sorting DNA's paper invoices where as 26 percent respondents states they had some problems.

4.11 Problem of sorting out paid or unpaid invoices after implementation of EBPP.

Even though it hasn't been very long since DNA implemented electronic invoicing system, people does not seems to have much problem dealing with it which indicates that it has been precisely able to accomplish a task which was previously performed by paper invoicing. Viewing the result from the survey we see that about 73 percent respondents says electronic invoicing system didn't create any problem in sorting of paid and unpaid invoices. Whereas 27 percent says they have some problems in sorting out invoices because of EBPP.

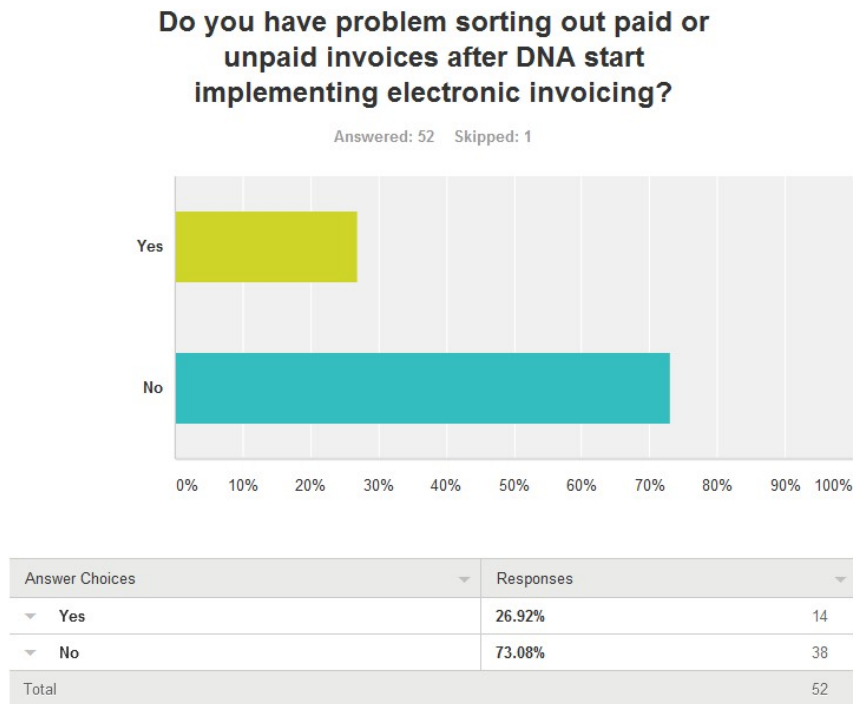


Figure 4-11 Problem of sorting out paid or unpaid invoices after implementation of EBPP

4.12 Penalty fee because of late payment and cause of late payment.

Most companies in Finland implement late fees for paying after due date. There can be certain reason for customers to pay their invoices late. Altogether there was 46 response to this questions. 50 percent of respondent states that they do not pay their bills late.. 10 percent customers think that invoices doesn't come in time. Also 17 percent things it is difficult to sort paid and unpaid invoices for more than one DNA invoices coming every month. About 24 percent says reason of late payment was not having enough money. Only s negligible number of customers mentioned that late payment was due to difficulty in using electronic invoicing or anything related with it.

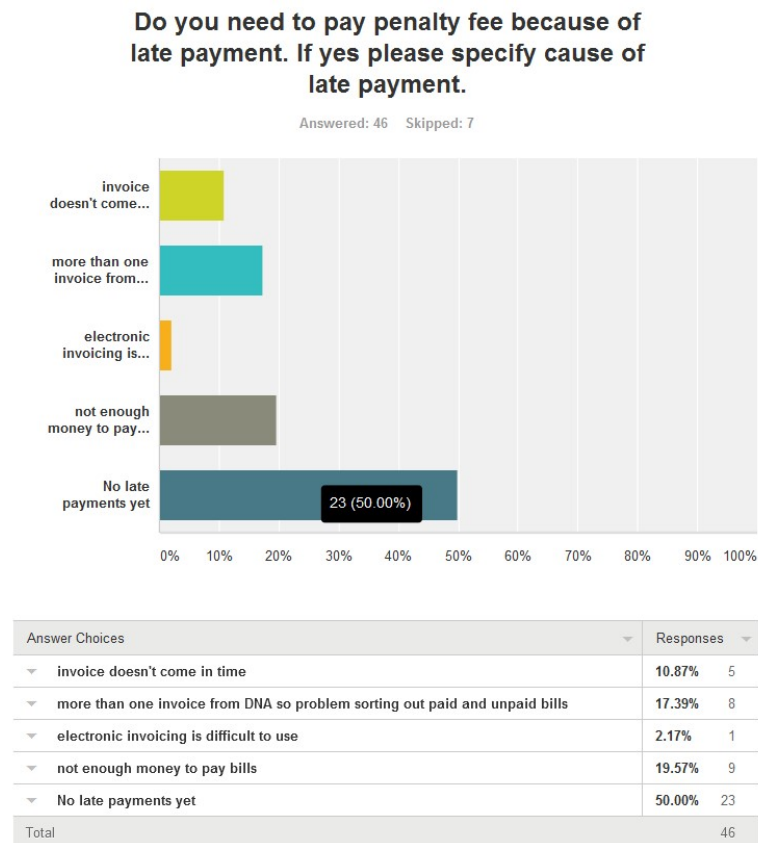


Figure 4-12 Penalty fee paid by customers and cause for late payments.

5 FINDINGS OF THE STUDY

The survey results with 53 responses. Out of total respondents, 33 were employed, 18 unemployed and 1 self-employed. the respondents were aged between 17 and 37. Sample population were filled with 72% male and 28% female respondents whereas few didn't disclose their gender. Majority of respondents were old customer of DNA who had been using its services more than a year already whereas around 11% of them were new customer of DNA Oy.

DNA offers different services and among them the majority of respondent uses phone subscription whereas mobile broadband comes second. The question regarding accuracy of invoice has around 70% of positive responses and 30% of negative responses. Even though, responses on the negative side is low compare to positive responses, but still 30% of negative response for the accuracy of invoice is pretty high because invoice are

supposed to be accurate. It could bring higher negative perception among users. However, it cannot be exactly mentioned that this is the result of implementation of electronic invoicing. There is no doubt that electronic invoices lack accuracy but on the other hand, it is also beneficial as it shortens the process of delivering invoices and cuts the postal delivery expenses.

According to the survey, around 72% of the total respondents prefer to choose electronic invoice over paper invoice. As most of the respondents are of young age who use internet regularly, it might have affected the result to some extent. However, 28% of total respondents still prefer paper based invoices. Even though it seems less, these customers are equally crucial to DNA for long run. There are chances that these unhappy customers might change their subscription to other service providers which DNA should think carefully.

Going further 27 respondents mentioned they receive a single bill from DNA whereas remaining receive more than one bill a month. But there are chances that those who get single bill has only single service in action. In figures, there were 11 respondents with two invoices a month as well as there were 7 respondents with three invoices a month and 5 with more than three invoices too.

Regarding the question about a problem in sorting out paper invoices paid or unpaid, the result discovered that 14 out of 53 respondents have issues in sorting them out whereas 39 respondents don't have any problems. The same question was also asked for electronic invoicing and the result was almost same. The total of 52 respondents answered this question and 1 respondent skipped, resulting 14 respondents with problem in sorting out electronic invoicing and on the other hand 38 respondents without any problems.

Usually in Finland, there is system of fine or penalty for late payment of bills issued by any firms or companies. Considering this, a question was places whether the DNA users had to paid any fines for late payments, subsequently asking the reasons for it. The total responses obtained for this question was 46 , 7 respondents did not answer at all. Out of 29 respondents, 23 respondents indicated that they have not made any late payments till now. Remaining respondents who have paid penalties had variety of reasons. 5 respondents out of 46 states that they did not receive invoices on time. Other 8 respondents said that they receive more than one invoice from DNA a month so they are

having problem sorting out those invoices. And 9 respondents had to pay a penalty because they did not have enough money to pay bills on time. 1 respondents say late payments are due to difficulty in using electronic billing system or it is because of the change in invoicing system.

From above analysis we can see that implementation of EBPP from DNA has more of positive effects on customer's satisfactions. Overall customers from sample population are happy with this new system. However, problems being faced by DNA customers like lack in accuracy of billing and sorting out multiple bills in a month for using different services of DNA where special attentions are required. Since the result does not indicate electronic invoicing as a key to current problem, it can be said that our sample population are satisfied with Electronic Invoicing system adopted by DNA.

6 CONCLUSION & RECOMMENDATIONS

Invoicing had been a way of communication between a buyer and a seller. It itemized a transaction between them. Paper invoices has been in used as only means for the purpose of presenting invoices for quite long. The changes of technologies are bringing changes in everyday practices both for companies and customers. People are using more internet based services and advanced gadgets. Companies are also changing their rules, infrastructure, services, products according to needs and demands of the customers.

Implementation of e-invoicing by the companies is one of above mentioned changes. There appears to have lots of advantages of using e-invoicing over paper invoicing. The fast delivery of invoice regardless of geographical factor whether its B2B or B2C, using electronic medium, business transactions have been more efficient. It not only eliminates overall delivery time but also send a precise and accurate data which enhance the business process benefiting both buyer and seller. Meanwhile, it is more eco-friendly too by avoiding use of papers and printouts.

DNA start implementing e-invoicing very recently. Any change in services or products affects the expectation of the end consumer and customer satisfaction. The effect can be both positive and negative. This thesis tried to focus on effect on customer satisfaction due to electronic billing system introduced by DNA.

Since, it is a new subject and secondary data from previous studies were not available thus, required data were collected through questionnaire. The majority of respondent were student and employed, the oldest respondent was 37. Most of the respondents were using phone subscription and mobile broadband for more than a year.

According to the analysis of a data that have been collected from our sample population it has been found that customers in general are happy with electronic billing system. There has not been any disturbances on customer satisfaction due to the adoption of EBPP. Most of them preferred electronic billing rather than paper billing. There has been some dissatisfaction regarding accuracy and sorting out monthly multiple bills for using different services of DNA. But those topics are not covered by this thesis however it is recommended that DNA should take a quick action regarding those problems.

Even though, it has been found that majority of customers are satisfied with the introduction of electronic billing system. But those few customers who still are having hard time dealing with new system cannot be ignored. There can be some areas of improvement regarding DNA services which can increase the positive impact of any new systems.

- Further study on this subject is recommended in this topic with wider sample. The sample population for this thesis are aged between 17 to 37. It is believed that younger generations are more adaptive to change and they are maximum users of computer and internet. Entirely different result would have been received if research was done among elderly population. Thus more study needs to be done including all the ages.
- Each customers counts and there is chances that unsatisfied customers will look for other options like going to competitors for services. It is recommended that if viable DNA should give option to its customers regarding choosing between paper billing or e-billing system, considering those customers who still prefers paper bills. There should at least be some measures to change views of those customers. For example by making people aware that using electronic invoices can be more eco friendly, time consuming etc.
- DNA is integrating with customers banks to make easier payment through banks the option of single invoicing for entire services should also be considered.

Whether for paper billing or e-invoicing this seem to simplify payment to customers.

- No initiative from DNA has been found regarding measurement of customer's satisfaction from EBPP systems. DNA should seriously consider collecting feedbacks from its customers specifically for this.
- It has been found that further research is needed in field of finding reasons for late payment and it should be make sure that customers does not have to pay fine due to fault of company system.
- Even though this research was not subjected to find the accuracy of invoices but Large number of respondent found who were not getting accurate invoices. 30% negative responses for accuracy of invoice is rather high amount and needed to be considered seriously. So, whether or not it is due to electronic billing, reason behind that should be researched and DNA should come up with solution as soon as possible.

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APPENDIX

Appendix 1: Questionnaire

Gender : ☐ Male ☐ Female

Age:

1. Occupation:

☐ a. Employed ☐ b. Self-employed ☐ c. Unemployed

2. How long have you been using DNA services?

☐ a. less than a year ☐ b. more than 1 year

3. What kind of services are you using from DNA? Check the services you are using.

- ☐ Broadband
- ☐ TV and Entertainment Services
- ☐ Phones and Subscriptions
- ☐ Mobile broadband
- ☐ Other, what?

4. Are you getting an accurate invoice from DNA?

☐ a. Yes ☐ b. No

5. Which invoicing system do you prefer?

☐ a. Paper Invoice ☐ b. Electronic invoice

6. Do you get all your DNA bills in single invoice?

☐ a. Yes ☐ b. No

7. How many invoices do you get in a month from DNA?

☐ a. 1 ☐ b. 2 ☐ c. 3 ☐ d. more

8. ***Did you have problem sorting out paid or unpaid invoices before when it was still paper invoice?***

☐ a. Yes

☐ b. No

9. ***Do you have problem sorting out paid or unpaid invoices after implementing electronic invoicing?***

☐ a. Yes

☐ b. No

10. ***Did you have to pay penalty fee for late payment?***

☐ a. Yes

☐ b. No

11. ***Cause of late payment (Check if there are more than one)***

☐ No late payment yet

☐ the invoice doesn't come in time

☐ there are more than one invoice from DNA so problem sorting out paid and unpaid bills

☐ the electronic invoicing system is not suitable for me

☐ Didn't have enough money to pay

☐ Other than above