

Organizational Buying Behavior for Combined Online and Offline ELearning-Services

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Helinä Niiranen
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**Aalto University
School of Economics**

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This research looked into organizational buying behavior and the way customer perceive value in eLearning materials and services. The main objective was to find out what kinds of things the teachers and principals take into account when buying learning material and service packages. One objective was also to find out whether the perceptions of the value conflict between teachers and principals. Based on the theory and empirical data certain service bundles are suggested.

This study's empirical data consisted of qualitative semi-structured interviews. This data was gathered first from two pre-interviews. These were done in order to gain more insight of eLearning as a phenomenon and also to refine the interview questions. The actual empirical data was gathered in three different schools. One principal and a few teachers were interviewed separately at each school.

The findings of the study reveal that when making decisions about buying learning materials, the teachers and head masters need to think three different factors. These are service platform, learning material and equipment for studying. Teachers usually make the buying decision themselves, together, and principal has only formal decision-making power. Regarding value drivers, clarity and topicality were found to be the most important for both, teachers and principals. These perceptions between teachers and head masters did not really conflict. Interesting finding was that the perceptions conflict actually between head masters from different schools. Different motivation levels of the head masters did have an effect on adopting new service packages. Motivation level of the teachers was also found to be an issue and proactive head masters and teachers are in key position to motivate others.

The following service packages can be suggested for the learning materials based on the theory and empirical data. First service bundle includes printed material and optional electronic material. After this the second bundle has printed material and compulsory material. And finally there is a possibility to move to only electronic learning materials.

KEY WORDS: business model, organizational buying behavior, value creation, service bundling, eLearning

Organisaation ostokäyttäytyminen yhdistetyissä verkollisissa ja verkottomissa e-oppimispalveluissa

Tämä tutkimus tarkastelee organisaation ostokäyttäytymistä ja sitä miten asiakas kokee saavansa arvoa e-oppimisen materiaaleista ja palveluista. Pää tavoitteena oli selvittää millaisia asioita opettajien ja rehtorien pitää ottaa huomioon ostaessaan oppimateriaali- ja palvelukokonaisuuksia. Yhtenä tavoitteena oli myös selvittää onko koettu arvo ristiriidassa verrattaessa opettajia ja rehtoreita. Tämä tutkimus ehdottaa muutamia palvelukimppuja e-oppimisen palvelujen tarjoamiseen teorian ja empiirisen aineiston pohjalta.

Tämän tutkimuksen empiirinen aineisto koostui laadullisista puolistrukturoiduista haastatteluista. Ensin kerättiin tietoa kahdesta esihaastattelusta. Tämä tehtiin, jotta saataisiin enemmän tietoa e-oppimisesta ilmiönä. Esihaastattelut auttoivat myös haastattelukysymysten tarkentamisessa. Varsinainen empiirinen aineisto kerättiin kolmessa eri koulussa. Jokaisessa koulussa haastateltiin erikseen rehtoria ja muutamaa opettajaa.

Tutkimustulokset osoittavat, että kun tehdään päätöksiä oppimateriaalien ostamisesta, opettajien ja rehtorien täytyy ajatella kolmea eri tekijää. Nämä ovat palvelualusta, oppimateriaali ja tarvittavat laitteet opiskeluun. Opettajat tekevät yleensä ostopäätöksen itse ja rehtorilla on vain muodollinen päätösvalta. Sekä rehtorit että opettajat pitivät selkeyttä ja ajankohtaisuutta tärkeimpinä arvoajureina ostopäätöksissä. Nämä käsitykset eivät olleet ristiriidassa opettajien ja rehtoreiden kesken. Mielenkiintoinen havainto oli, että käsitykset olivat suuressakin ristiriidassa rehtoreiden välillä. Rehtoreiden motivaatiotasolla oli vaikutusta uusien e-oppimisen palveluiden omaksumisessa. Opettajien motivaatiotason voitiin todeta olevan myös ongelma ja proaktiiviset rehtorit ja opettajat ovat avainasemassa muiden motivoimisessa.

Seuraavia oppimateriaalien palvelupaketteja voidaan ehdottaa teoriaan ja empiiriseen aineistoon perustuen. Ensimmäinen palvelupaketti sisältää painetun materiaalin ja vapaaehtoisen sähköisen materiaalin. Tämän jälkeen toinen palvelukimppu sisältää painetun materiaalin ja pakollisen elektronisen materiaalin. Lopuksi on mahdollista siirtyä ainoastaan sähköisen oppimateriaalin.

AVAINSANAT: liiketoimintamalli, organisaation ostokäyttäytyminen, arvonluominen, palveluiden niputtaminen, e-oppiminen

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1. INTRODUCTION

This Master's Thesis is done as part of a Next Media Research programme. This is an ongoing programme planned to run during years 2010–2013. The purpose of this research project is to find innovations in media experience and relating concepts and business models. The aim is to renew media sector business environment by changing its creation and services and researching this phenomenon. (Next Media 1) This research programme consists of around 30 big companies, about same amount of SME companies and eight research organizations including for example Aalto University School of Economics, Metropolia University of Applied Sciences and VTT Technical Research Centre of Finland (Next Media 2).

My Master's Thesis belongs to Multichannel Multimarket Media Services Project, later cited as MuMuMeSe. This project is part of this Next Media programme. The aim of this project is to develop know-how for internationalization of multichannel online media services and understanding of for example new multichannel media learning services. (Next Media 3) This research is done in collaboration with WSOY Pro whose goal is to explore new scenarios of how to maximize profits with new business and service concepts regarding electronic learning environments.

1.1 Background of the study

Growing number of electronic material and devices are coming to consumer markets. Lately for example tablets (e.g. Apple, Samsung) and eReading devices for electronic books are breaking the traditional ways of consuming; for example reading. It is important to research these topics, as these are relevant in the current growing eLearning world (Thompson & MacDonald 2005, 222).

Board of Education in Finland has ambitious goal: half of school material would be electronic by year 2015. (Turun Sanomat) The current situation in Finnish school world, however, may set some challenges. Some schools may have computers and smartboards in every classroom and in some schools even the teachers do not have a possibility to use computers in classes. Article in Suomen Kuvalehti cites Salla Vainio from WSOYPro, who tells that all of their learning materials include an electronic content but book is still the most used material at schools. Learning materials are, according to Vainio, in the middle of evolution and clear business logic hasn't been found yet. Publishers agree that teachers are in key position in the evolution as they decide how they want to teach their classrooms. (Suomen Kuvalehti 1)

The information technology (later cited as IT) skills of the teachers can also set some challenges and put the students to unequal situation. An article in information technology magazine describes a report done about IT skills of teachers. This report about these skills stated that even newly graduated teachers are lacking the needed IT skills. Retiring teachers are also threat as there may be motivational issues to learn to use electronic materials. Principals are often the key actors in the process of taking electronic materials to use as they can motivate the teachers to use the new electronic materials and devices. (It-viikko)

As teachers with different motivation and skill levels could put students to unequal position it is important to get the instructor's, in this study teachers, viewpoint about the eLearning and environment from early on. The teacher is the person who leads the students when they use the learning materials. There are advantages in eLearning materials but the challenge really lies in the ability to utilize the electronic media cost effectively and at the same time produce material with high quality. Users need to be thought in the development process, because they may be the ones showing what the future will bring to the industry.

Right now WSOYPro, as also its competitors, are mostly using printed media when providing learning materials to schools. But WSOYPro has also OPIT- electronic environment, which is supporting the printed media. This OPIT is learning environment, which provides different learning tools and user support. This environment requires only computer with Internet connection. (OPIT 2011) But currently quite small per cent of revenue comes from OPIT and that is why the company needs to know how to use all of OPIT's potential and how to proceed with the migration from printed media to finally only electronic media.

Book industry is changing and publication companies face new challenges. This has also an effect on the learning materials. Publication companies have traditionally sold printed book series to schools but now the new electronic solutions are offering the publishers a chance to provide electronic service platforms and electronic learning material. However, according to a general view, this opportunity is not yet fully utilized.

Electronic learning materials also set some challenges for the ones who create them; publication companies. For example, according to Holsapple and Lee-Post (2006, 80) information quality still needs some improvement in eLearning environments, especially concerning assignments and practice environments. Thus, learning material also needs properly working platform

where the actual material is used. Even great material cannot work if it is not usable enough in the environment where it is. The platform needs to be fairly easy to use. Service providers have also a new challenge of thinking how often the electronic learning materials should be edited. Electronic content for example enables quick updating, which makes the content more up to date compared to printed media (Wu & Hwang 2010, 312). Electronic content is also more flexible as it can be updated and integrated to other material, such as Internet pages. This makes the material less isolated from the surrounding content and media. Accordingly, there are also benefits compared to printed material and those benefits need to be utilized.

The challenge in marketing research related to education is also to think how to optimize the technology to maximize learning (Smart & Cappel 2006, 214) It can be assumed that it is different experience for the student and teacher to read text from some kind of reading device than from hard cover book. Methods of teaching may need to change as well to adapt to these new materials and devices. It can be argued that it needs to be studied how it can happen while giving best possible profit maximization. However it is hard to predict future: Hoppe & Breitner (2003, 13) argue that: “eLearning is growing very rapidly, and it presents challenges in regards of how to shape new kind of sustainable business models for complex eLearning services”.

In education industry users are not necessarily payers, and, according to Hoppe and Breitner (2003, 12), the costs are usually allocated per student. Thus currently yearly contracts are usually made and pricing is based on certain amount per student per year. This enables the usage of the electronic material for one year. These decisions are already made in schools and different publication companies are competing for the contracts. So the question is how to make the new service bundles of electronic materials inviting enough for the customer to choose certain company over the other.

In this study it is argued that the companies may need to develop new service bundles to enable the migration to finally only electronic material.

Future scenarios may be needed in order to see more clearly what is the way and pace of the potential migration. This also depends on the buyers, which in this case are the teachers and principals and on the upper level also municipal authorities. They are ultimately making the decision how to teach the students.

As stated earlier, there isn't yet clear business logic in electronic learning materials. The problem may be that there isn't consensus even about the concepts of the e-business models in general. (Pateli & Giaglis 2004, 312) There is also lack of effective techniques to analyze value in these surroundings (Gordijn & Akkermans 2001, 11) This research is looking into value creation and value drivers of the buyers in order to help to find business logic for this business. Value creation and value drivers are used interchangeably in this study and they "refer to any factor that enhances the total value created by a business" (Amit & Zott 2001, 494).

The government is not fully supporting this new business as for example the value added tax in electronic materials is 23 per cent as for printed books it is only nine per cent. The production process of electronic media and learning materials does not include stages such as printing paper, but still, making electronic material, is more expensive than printed books and these together may increase the prices. Sourcing of devices for students and copyright issues bring also challenges to the business (Suomen Kuvalehti 2) I am looking value creation for the customers. If it can be studied what brings value to teachers; their value drivers, it may give a possibility for the publishing companies to see for what the teachers would be ready to pay for.

Amit & Zott (2001, 516) suggest future research questions like what kind of competitive advantages online markets have compared to offline markets. This research helps to capture these kind of questions as it creates future scenarios for different combinations, service bundles of online and offline services and products. This thesis can help to understand what is happening in the current eLearning business and show the buyer and user point of view. The industry of this business is now under great change and any forecasts of possible future are valuable.

This research looks into the perceived value of the customers and decision makers, which in this study are teachers and headmasters. This study also attempts to find out what kind of value they perceive in the service packages and how these perceptions may conflict. In this study I am writing about theoretical discussion and then gathering data from the buyer and user perspective. It can be assumed that it helps to understand how to proceed when developing new business concepts and service bundles in the changing e-business. Hence, the aim of this study is to provide scenarios of how the eLearning business and environment could be changing, and in particular how the users are responding to these changes. The objective is to provide tools and better understanding on this matter, and ultimately help the players in this field to understand why and how the business models are changing in the market. Understanding user experience and value perceptions is the main purpose of this study, as I argue that it can help to find out the challenges and advantages of these new electronic possibilities.

In order to study organizational buying behavior, empirical data is gathered at schools where teachers and principals are working. This empirical part is gathered at three different schools where headmasters are interviewed. Teachers of these same schools are also interviewed separately. Especially the decision-making between teachers and principals is under closer attention.

1.2 Research problem and objectives of the study

Consumers are a vital part in marketing research, as it is important to know how people use and experience products and services. According to Jensen (2001, 307) “value creation to customers can really create a sustainable competitive advantage to a company in the long run”.

Value creation and value drivers can help to understand why customers are buying. By value drivers I mean the attributes that consumers consider to be important in a product or service. If certain product brings value for example in a form of joy, joy can be considered as value driver for that consumer. But it is also important to know what happens in an organization in a buying situation. Researchers have called for the need for testing the organizational buying behavior in empirical settings (Scott & Webster 1991, Lewin & Johnston 1996, Priem 2007).

According to Reid & Plank (2000, 55) value is defining why of the buying decision. Thus I am looking to find out how the perceived value differs between teachers and headmasters and how that may affect decision-making. These values may have a strong effect how the service packages are estimated when making the purchase decision. I think it is important to research what these values are as they can define why consumers and in this case teachers are buying the learning materials. It can be fruitful for the service providers to know what kind of services the buyers value.

This research looks into the perceived value of the customers who purchase and use the service packages.

The main research problem of the study is

- What kinds of things the teachers and principals take into account when buying learning material and service packages?

In order to answer the main research question the following sub-research questions are

- How is the value of the service packages perceived by the teachers?
- How is the value of the service packages perceived by the principals?
- Do these perceptions conflict?
- What are the implications for the service provider?

1.3 Limitations of the research

This research is done from the point of view of teachers and head masters. To gain more understanding of this phenomenon it would be good to interview also the students of the schools. This research has also focused on the high schools and one secondary school. It would be interesting to do research also in elementary schools because the children are younger and their learning experience could be different. This is a qualitative research and only few schools were part of the interviews. Quantitative research could capture and understanding of a bigger population.

1.4 Key concepts

This section describes the main concepts used in this research. The chosen descriptions have been chosen from various descriptions from the academic literature and these suit best the purposes of this study.

Organizational buying process is multi-phased where multiple persons are involved (Robinson *et al.*, 1967; Webster and Wind, 1972, Sheth 1973).

Customer value is "...customer's perceived preference for and evaluation of those product attributes, attribute performances and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations." (Woodruff 1997, 142)

Buying Center is formed by the communication of the individuals and the relationships within the buying center. It is a central concept of organizational buying behavior. (Johnston & Bohoma 1981, 146)

Business model is defined as "conceptual and architectural implementation of a business strategy and as the foundation for the implementation of business processes". (Osterwalder & Pigneur 2002, 2)

Price bundling is defined as "the sale of two or more separate products in a package at a discount without any integration of the products". Stremersch & Tellis (2002, 56–57)

Product bundling means that two or more services or products are integrated and sold at any price. Product bundling is optimal in products and services as it can be a differentiation strategy and creates added value for the customers. Stremersch & Tellis (2002, 56–57)

1.5 Structure of the research

The aim of this study is to look into the new phenomenon in the publication business and eLearning world and create a theoretical framework, which enables, with the help of empirical part, the creation of future scenarios. The aim of this research is also to explore new business models and service concepts in the eLearning-environment.

The literature part starts from discussion about business models and service concepts in e-business. Business logic triangle by Osterwalder & Pigneur (2002) is presented. Next, theory about business models and service concepts more specifically in eLearning environments are discussed. After this, bundling of products and services are more specifically presented in the light of earlier research, this is related to pricing as well.

Next theory discussion is about organizational buying behavior and it is very buying center focused. Moreover also participation and influence in buying center decision-making is covered.

Value creation is the next part of the discussion where context is examined. Value drivers in e-business are also presented and these are later compared with the empirical material.

After this theoretical framework is formed based on the literature review.

The chapter after that describes the methodology of this research. More specifically it describes first the data collection of this research. Delphi method is also introduced. Data analysis is following with the description of reliability and validity of the research.

After this the empirical material is discussed. Pre-interview results are presented first. After that the interview data from teachers and head masters is discussed. Empirical analysis is done in line with the theoretical

framework. The interview followed theoretical themes and the analysis follows these themes. First one is value creation and value drivers. Next theme analyzed is organizational buying behavior and participation and influence in the buying process. Further, the service bundling is analyzed with the empirical material.

Different future scenarios are created for adoption of the electronic learning material. Three service concept bundles are created based on the existing literature before the interviews. The new service bundles take into consideration the migration from printed media to totally electronic eLearning-materials.

First of the bundles would include traditional printed media and optional electronic media. Second bundle would include printed media with compulsory electronic content. The third bundle would only include the electronic media. These service bundles are kept in mind when interviewing in real school world environment in upper secondary and high schools. The experts in this research are the decision makers, i.e. teachers and the headmasters. Organizational business behavior and perceived value is researched within the school environment when interviewing the head masters and teachers.

After this the material is analyzed, service bundles are refined based on the interviews. The advantages and disadvantages of the each bundle are also discussed based on the results of the empirical research analysis.

New electronic learning materials might change also the buying of the learning materials and this organizational buying behavior has to be taken into account. Teachers and principals are making the decisions about learning materials. It is important to discover what kind of factors may set challenges and even conflicts when making the decisions.

2. THEORETICAL BACKGROUND

Technology is used more and more in school education and thus one new and growing business is eLearning. The new electronic material is challenging printed media and creating new opportunities in education business. Actions like updating, editing and interaction are easier to implement to electronic environment than to printed book. Hence, business models for providing education products and services must be revised in a new and innovative way. (Davis and Wong 2007, 97, 119)

This section reviews academic literature on e-business models and their foundations. Moreover, literature on eLearning business models is examined. Pricing and bundling of products and services is reviewed in the light of previous literature. After this the next section will view the academic literature regarding organizational buying behavior and more precisely buying center as a concept. Decision-making process and power and influence within the buying center are looked more in-depth. Value creation is also presented in the light of earlier studies; e.g. Customer value Hierarchy Model is described. After that, context of value creation and value drivers creating the value in e-business are examined.

2.1 Business models and service concepts in e-business

This part of the study examines the business models and service concepts especially in e-business based on the academic literature. Moreover business models and service concepts in eLearning environments specifically are discussed.

Business model as a term has been used a lot but there is no widely agreed definition for it in the literature (Methlie & Pedersen 1999, 70–71)

Pateli & Giaglis (2004, 312) have done a literature review consisting of 29 key research studies about business models in e-environment. The review showed that the researcher community still needs to find a common language and conceptualization regarding e-business models. Thus according to the authors this area is important to study, as it still needs some further research,

Osterwalder & Pigneur (2002, 10) also emphasize the importance of research regarding e-business models. The concepts defining the e-business models are rare and the academic world is lacking a consensus about what it actually means. Osterwalder & Pigneur (2002, 2) define business model as “conceptual and architectural implementation of a business strategy and as the foundation for the implementation of business processes”. This means that strategy is placed on the planning level, giving the foundation to the model. The implementation is executed within business processes. Business model is needed to give these the architecture to work on. Thus business model operates as work instructions and the business processes are implemented according to these work instructions. Moreover it is something that brings value to the customers if it is planned well.

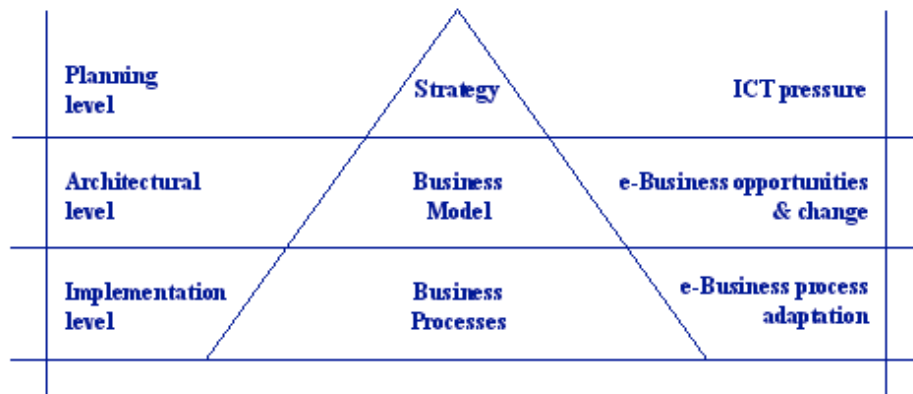


Figure 1. Business logic triangle (Osterwalder & Pigneur 2002)

According to Osterwalder & Pigneur (2002, 2) the e-business model ontology is based on four factors, product innovation, infrastructure management, customer relationship and financial aspects.

Product innovation is related with the products and services. It defines the value proposition that the company has for the target customer segments. This can be related to the value drivers of the customers. It also defines the capabilities of the company to deliver product or service that the customer is willing to buy. E-business can provide new possibilities for value proposition as for example customizing for each customer is easier. E-business gives also possibilities to offer additional services that are connected to the core product.

Infrastructure management means that the value system is configured. This is needed so that the company can offer the value proposition. For this the company needs to configure what kind of activities it is going to create for that value proposition; this means activity configuration. Assets and resources are also part of this infrastructure management. Partner network defines which activities are taken inside the company and which activities the partner companies take care of. E-business gives new kind of possibilities to partner networks.

Customer relationship in this aspect means, taking care of the relationship to the customer. In e-business good information strategy is needed. Through Internet it is also possible to use many different channels to get to customer e.g. social media. Trust and loyalty are also increasingly important elements especially in the e-business world where there are no face-to-face meetings.

The financial aspect is the fourth one of the pillars in e-business model ontology. All the other factors have an impact on it. Cost structure and revenue model of the company represent the financial aspect. The revenue model explains the ability of the firm to turn the value offered to customers to money. Cost structure explains the costs incurred when creating the value. The difference between the revenue model and cost structure is the profit model. According to Osterwalder & Pigneur (2002) this is the bottom line of the e-business model ontology.

A company needs to choose a business model regarding how that affects the service offering. This way a firm is able to maximize the offering of customer value.

Methlie & Pedersen (1999, 71–72) define a business model to constitute of three dimensions; service strategy, governance form and revenue model. The service strategy consists of value proposition and market focus. Governance form means the way information, goods and resource flows are controlled by the business network. This network then creates value. Revenue model is about revenue valuation and sharing. According to Methlie & Pedersen (2007, 81) service providers take into consideration network effects when they are designing business models. This can be seen as they classify services in categories where they compare whether customer value comes from intrinsic or extrinsic sources. Methlie & Pedersen (2007, 72) classify that “intrinsic attributes are attributes of the service itself and extrinsic come from networks that use and provide networks”.

They argue that further research is needed for finding out how business model decisions affect services attributes, meaning what the services are like. Collection of customer data on service attributes is suggested.

Grandon & Pearson (2004, 210) have found an important relationship between the perceived strategic value of e-commerce variables and the factors that have influence on adoption of e-commerce. The variables of perceived strategic value are organizational support, managerial productivity and strategic decision aids. Organizational support can be defined as how e-commerce can reduce costs, improve the services provided to customers, increase operational excellence and increase the ability to compete. Managerial productivity describes how e-commerce can enhance decision-making and communication and productivity of the managers. Strategic decision aids tell how e-commerce can enhance strategic decisions by managers and provide information to those decisions.

According to Grandon and Pearson (2004, 202, 209) the factors that have influence on the adoption of e-commerce, are organizational readiness, external pressure, perceived ease of use, perceived usefulness and compatibility. Organizational readiness consists for example of technological and financial resources. Company values, culture and work habits also have an effect on the organizational readiness. External pressure depends on competition, government, and industry in general. Compatibility in adoption of e-commerce is defined by the connectedness to e-commerce by the company. Moreover it is the correlation between the e-business and company values and work practices. (Grandon & Pearson 2004, 202, 209)

2.1.1 Business models and service concepts in eLearning environments

This subsection tells about business models and service concepts especially in eLearning environment. This is important as this study is focusing on buying behavior on eLearning. ELearning is a quite new term as the definitions and articles start only from the year 1999. (Seufert 2002, 111) According to Seufert (2002, 110) “eLearning is taking over schools and businesses. It removes the barriers of time and location. The industry is tremendously changing, regarding ways to teach and learn. New strategies for eLearning are needed to react to the big changes on the learning market globally”.

The term eLearning is used interchangeably with the terms online learning and distance education. It is different from computer-based learning as eLearning emphasizes communication and interaction. It is also changing the roles of customer and suppliers in the business models. Companies and educational institutions become each other’s suppliers and customers. (Seufert 2002, 111–112) This could mean that educational institutions could give new ideas to the publication companies in the production process of materials. This way the publication companies could be the customers of educational institutions. Other way around the publication companies would provide learning materials to educational institutions and be the suppliers.

2.2 Bundling of products and services

This subsection is describing bundling as this study is interested in how to combine different products and services online and offline. This can be helpful when answering the research question about the implications for the service provider. Thus, it can help the service providers to provide the kind of services the customers value.

Bundled pricing means that two or more services or products are sold for a single price (Naylor & Frank 2011, 270). This kind of pricing is increasing in the product and service industries. Naylor & Frank (2011, 272–274) have examined how price bundling can have effect on the perceptions of value. They argue that there may be two potential predictors of value: money inclusiveness of price bundling and potential delight or disappointment of this priced bundling. The monetary inclusiveness presents the percentage of the total costs of the bundle. This means that there may be additional costs that come when deciding to buy a product or service package. Delight or disappointment of the bundled pricing represents the perceived inclusiveness of the package price.

If money, time or effort is invested, a customer is more likely to consume than in a situation where this investment is not made. This phenomenon is called sunk cost effect (Arkes & Blumer 1985, 124) This means that for example if a customer has paid tickets to a concert, one is more likely to go even during bad traffic compared to a situation where the tickets were given free of charge. According to Soman & Gourville (2001, 42) one-to-one transactions where benefits and costs are closely coupled results in strong sunk cost pressure to consume the benefit. However, customer may ask less compensation for a benefit and even forgo consumption if the purchase is done as part of a bundle. This is an evidence of transaction decoupling where the price bundling makes it harder for the customer to associate the product's costs and benefits.

According to Johnson et al. (1999, 140) mental accounting principles suggest that regarding price information consumers integrate losses to a bundled price but separate benefits and gains to debundled discounts with discount information.

Stremersch & Tellis (2002, 56–57) argue that literature has used terms price bundling and product bundling interchangeably. They suggest however that these two different strategies should be distinguished. They define price bundling as “the sale of two or more separate products in a package at a discount without any integration of the products”. As the products are not integrated, the bundle does not create added value and thus discounts have to be made in order to motivate the customers to buy. An example of this kind of bundle could be combo meal. Product bundling means that two or more services or products are integrated and sold at any price. According to Stremersch & Tellis (2002, 56–57) this kind of value can offer some added value to customers in a form of for example convenience or reduced risk. It is also suggested that product bundling is better for long-term differentiation strategy.

Furthermore Stremersch & Tellis (2002, 57) classify bundling form. The form can be unbundled, pure or mixed. Unbundled is a common strategy where products are sold separately. Pure bundle means that products are not sold separately at all; only in bundles. In mixed bundling the products of the bundle are sold both as part of a bundle and separately.

Stremersch & Tellis (2002, 70) suggest price bundling for existing products as it may decrease price sensitivity and increase the willingness to buy. Price bundling can give bigger profits the larger the economies of scope and scale are. For example high-tech products and services with a lot of investment can benefit more from price bundling. Product bundling is also optimal in current products as it can be a differentiation strategy and creates

added value for the customers. Bundling strategies should be designed well as they can bring long-term success and revenues to the firm.

Stremersch & Tellis (2002, 70) suggest mixed bundling to be better than pure bundling only in highly competitive markets. However according to Stremersch & Tellis (2002), with new products pure bundling is better than mixed bundling. This is because with pure bundling customers get acquainted with the new product and are more likely to try it.

2.3 Organizational buying behavior

This study examines buying behavior at educational institutions. Thus, this chapter examines organizational buying behavior literature. Literature about participation and influence in buying center is also presented. This is done from the perspective of decision-making.

Organizational buying is a multi-phased process, and it involves multiple persons (Robinson *et al.*, 1967; Webster and Wind, 1972, Sheth 1973). Buying center is a key concept in organizational buying behavior. The buying center does not necessarily operate like a formal organization. It is formed by the communication of the individuals and the relationships within the buying center. Communication structure is important factor to look into in the organizational buying behavior. (Johnston & Bohoma 1981, 146). In fact, the buying center structure, influence and communication change, all, over time (Ghingold & Wilson 1998, 98) Key concepts of buying center are the number of the hierarchical levels (vertical involvement), number of individuals in the buying process (extensivity) and the number of the departments involved (lateral involvement). Connectedness and centrality of the purchasing manager in the buying center are also important (Johnston & Bohoma 1981, 146–147)

Individuals participate in different places of the decision process where they exercise their influence and authority. Different places can be at the beginning of the decision process where suggestions are made from different options to buy. Some persons can be at the end of the process where they make the final decision about buying. This can be one person or multiple persons who make the decision together. The perceptions of these individuals about different issues with buying vary as well. (Ghingold & Wilson 1998, 96) For example, people may have different opinions about the features they want to have in the service or product. Or different persons may have dissenting opinions about the price they are willing to pay.

Webster & Wind (1972, 13) define organizational buying behavior to be a complex process; it always includes an individual, other people and the organization itself. When thinking the buying behavior in education institutions, these could relate to teacher or principal, other teachers and the school as an organization. According to Webster & Wind (1972, 13) there are also four determinants in this purchasing process: individual, social, organizational and environmental. Moreover each of these also contains task and non-task variables, former describing directly the buying problem and the latter issues beyond the actual problem.

This describes how no buying decision is usually done in isolation of the surrounding world. When for example making a decision about buying materials, individuals have their own goals. They discuss it with other people, who give a social determinant to the process. It could mean that the buying can become a social event where people communicate with each other about their buying decisions. Organization sets its own boundaries with regulations for example regarding money. Environmental determinant would be also part of the buying process as for example nationwide laws and regulations are setting certain conditions and boundaries regarding buying decisions. The non-task variables can relate to these kinds of determinants behind the actual buying process and decision. These should be carefully considered when researching about organizational buying

behavior.

2.3.1 Participation and influence in buying center decision-making

Decision-making process has been a popular area to research in organizational buying behavior literature. Power, conflict and influence as concepts have been used extensively to understand group dynamics within the buying center. (Sheth 1996, 8) These concepts could have a great impact on the buying decision and the process itself. Conflict is not necessary only a negative issue in the buying process. Relating to problems, according to Webster & Wind (1972, 14) complex interaction of organizational and personal goals can be also motivating and rewarding. It may give new viewpoints and resolutions and help to come to even better solutions. It can be suggested that power and influence could be factors that could change the group dynamics. Some persons may have more influence than others and thus they may change the buying center structure.

Garrido-Samaniego & Gutiérrez-Cillán (2004, 320–322), have developed a theoretical model concerning participation and influence in the buying center. The model describes the determinants of influence and participation in the buying center. These determinants are conditions of the buying situation, individual characteristics of the persons and the structural characteristics of the organization. The conditions of the buying situation describe the environment where the decisions are made. These describe the risk and time pressures for example. Individual characteristics tell about the experience of the persons for example, which may have an effect on the decision-making. Structural characteristics describe the characteristics and form of the organization.

According to Garrido-Samaniego & Gutiérrez-Cillán (2004, 320–322) novelty belongs to the conditions of the buying decision. It describes the experience of the buyers in the organization. The level of experience varies and more novel buyers need more information to gain more influence and participation in the buying center. Gaining these may be complicated by complexity of the purchase situation or product. The buying importance, perceived effect on the productivity, is also a factor to be considered in the buying process. This factor is based on individual goals. The perceived risk in the process increases the participation and influence of the buyers where as time pressure is decreasing those.

Individual characteristics have an effect on the buyer's influence and participation levels as well. Personal stake and experience are increasing these levels in the buying center. Specialization and formalization have a positive impact on participation and influence. Formalization however is reducing participation as new electronic tools are taken to use. Formalization can make the decision-making too rigid. Size of the organization has an effect on the buying center structure. This means that in a bigger organization the buying center is bigger and thus involves more people. In a small firm the buying center may consists of just a few people. Thus people in a smaller firm may have bigger influence and participation level. And thus influence and participation depend on organization size. There hasn't however been a proven relationship between organization configuration, meaning different positions in the organization, and influence and participation. (Garrido-Samaniego & Gutiérrez-Cillán 2004, 322–324)

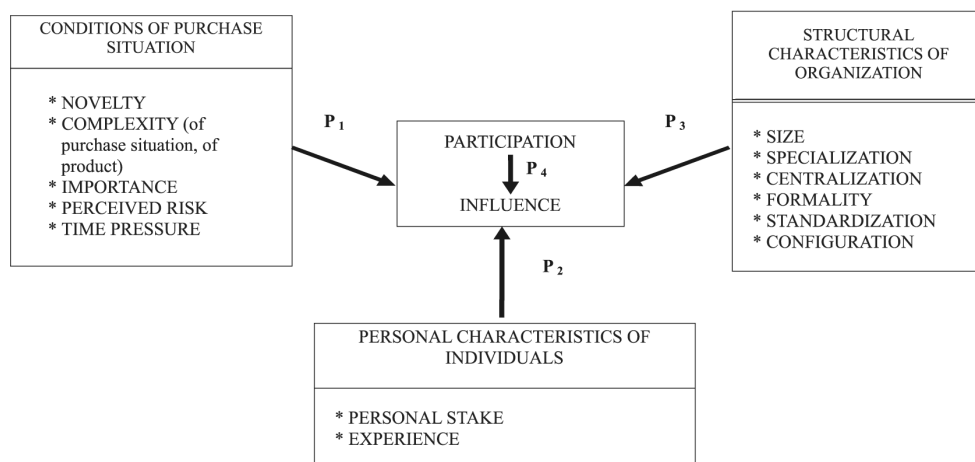


Figure 2. Model of participation and influence in the buying center (Garrido-Samaniego & Gutiérrez-Cillán, 2004)

According to Barr & Dreeben (2008, 75) teachers and principals can face challenges as they are making decisions about the learning materials at schools. They need to meet organizational and personal goals at the same time and this may lead to conflicts. Principals usually engage in activities such as final decisions about learning materials. Unfortunately individual interests of teachers do not usually serve all classrooms. Individual interests may cause disputes among teachers. This means that a teacher may want to have specific books but the colleagues do not agree. In this case the teachers need to operate according to organizational goals in order to find a solution. If principal is the decision maker, it may cause conflicts as well as individual and organizational needs clash. User-payer relationship also gives an interesting viewpoint in this study, as the actual users, high school students, are not making the decision of what to buy.

According to Lewin and Johnston (1996) in Reid and Plank (2000, 51) risks are in a central role in organizational buying behavior decisions. When the buyer's perceived risk increases, conflict within the buying firm increases and so does role stress. (Reid & Plank 2000, 51) Buyer has to always take

into account several things when making decisions. Uncertainty could be a factor that creates a risk in the buying process. If the outcome is not known and several factors are unclear, it makes the decision riskier. In worst cases this may cause even decision not to buy at all.

Pricing is also a part of the decision making process and can have an effect on perception of risk. In their study, Lii & Sy (2009, 775) have found that consumers for example experience price fairness when shopping in Internet. The experience of fairness or unfairness evokes feelings and then affects the buying decision.

This is especially important to understand when creating new business models and service bundles. These things should be considered also when studying the buying behavior of teachers and principals who are making the decisions about the learning materials. It may be that if the pricing is not considered as fair, other publisher may be chosen instead. Pricing will be later connected to value creation as the attitudes to pricing may be connected to the perceived value.

It is also important to acknowledge what defines eLearning success. Services and information have strong interdependence (Orman 2008, 60). ELearning service packages including texts, exercises, sounds and pictures in electronic environment can contain and provide huge amount of information and learning material to a student.

Instructors can have great social influence on the learner's eLearning behavior (Davis and Wong 2007, 119). The teacher in Finland has autonomy in the class. However this autonomy also depends on the extent that others recognize the teacher's expertise. (Laitila 1999, 45) This means that in practice teacher has the responsibility to decide how much electronic content is used in the lectures.

2.4 Value creation

This subsection of the study examines literature about value creation from the customer point of view. More over context of value creation is examined and specifically value drivers in e-business are covered.

Porter (1985, 38) in Amit & Zott (2001, 496) defines value as the amount that customers are paying for the offering that the firm is providing. For a firm the value is in a form of total revenue. Profits are accumulated if the value exceeds the accrued costs when creating the product.

Value creation is extremely important in Internet business and also in eLearning business. Value needs to be created for the customer so the customer feels that the education materials are worth of buying. According to Priem (2007, 220) “we can learn much about successful strategy through a long-ignored consumer lens”. Consumer-centric approach needs to be taken already in the production process of services and products, in order to create value for the customer who is using the product or service. (Ankar & D’Incau 2002, 48,57).

Woodruff (1997, 142) defines customer value as “...customer’s perceived preference for and evaluation of those product attributes, attribute performances and consequences arising from use that facilitate (or block) achieving the customer’s goals and purposes in use situations.” Woodall (2003, 1) defines a similar concept, Value for the Customer VC, which means the derived value from supplier to customer. However conceptual knowledge of customer value is still quite fragmented in the academic literature (Woodruff 1997, 142).

According to Woodruff (1997, 141): customers are the ones who determine and perceive value rather than the seller determining what it is. Customer value is a trade-off between what customer receives (e.g. quality) and what the customer gives up (e.g. time or money) Moreover according to

Woodruff (1997, 141) value is perceived differently depending on whether the decision is taken before buying, during usage or after the consumption. Before making the purchase decision, the consumer evaluates the attributes of the product or service to be bought. After the purchase when the customer is using the product, value is perceived as a function of consequences.

The customer value hierarchy model by Woodruff (1997, 142) can be considered in a means-end way. The model works from down to top and from top to down. Starting from the bottom, customers first think and evaluate the product as attribute and performance bundles. Preference attributes are developed based on their ability to facilitate desired consequence experiences during use. These consequences then help the customers reach their goals. However model can also work in a way that desired goals are known and based on those, certain consequences are wanted. These consequences then lead to desired product attributes.

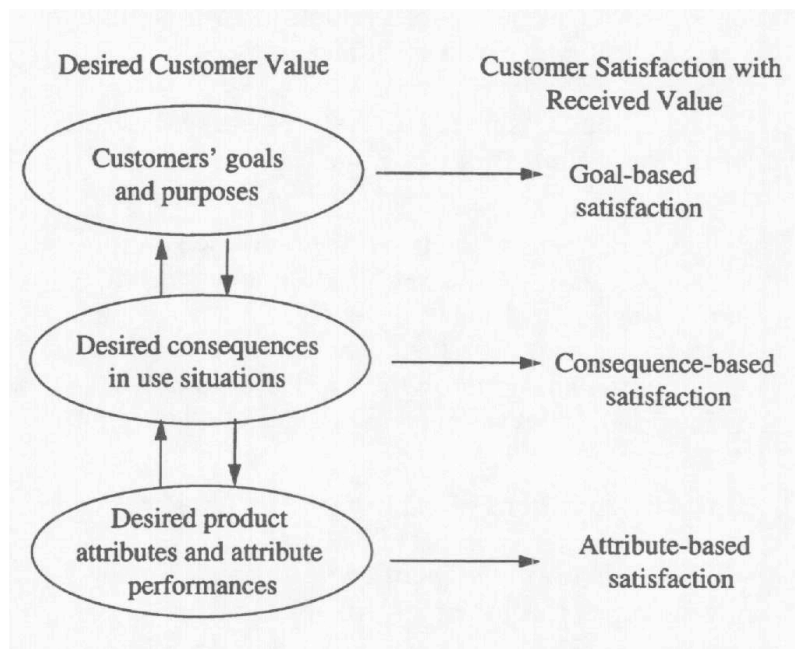


Figure 3. Customer value hierarchy model (Woodruff 1997)

Woodruff (1997) describes that disconfirmation paradigm means that the desired value and after-purchase received value can be compared before buying. Parasuraman (1997, 157) states that disconfirmation paradigm has an impact on how customers assess value when buying and he presents how it may affect this Woodruff model.

Parasuraman (1997, 157) however argues that these values may not be completely comparable as different measurement criteria is usually used on attribute and consequence level. This makes it harder to observe if the received value actually confirms or disconfirms the desired value. Parasuraman (1997, 157,159–160) suggests researching these cognitive processes, what people use as measurement criteria before and after the purchase, to gain more understanding of customer value assessment. But he also provides an alternative within-stage value assessment. This means that customer assesses a give versus get trade-off. Before the purchase the customer assesses if the expected benefits outweigh the costs. If so, the customer decides to buy. After the purchase the customer assesses the actual costs and realized benefits. If the benefits outweigh the costs, it is more likely that the customer decides to buy again. In this kind of assessment the evaluative criteria on different stages is not comparable. The comparison must be done at the same stage of buying. He suggests that there is also a possibility of combination of disconfirmation paradigm and within-stage assessment. He asks for more research on which of these value assessments are actually used in reality.

Woodall (2003, 10) is in line with these propositions as he uses the term Value for the Customer VC. VC can be evaluated in different temporal forms. Ex-ante zone is before the purchase when the customer evaluates the value. Transaction VC is during the consumption of the product or service and Ex-poste VC is after the purchase. Moreover he uses also the term Disposition VC, which means after use or after experience. Customer may

have different attributes that one values in these different stages of buying.

2.4.1 Context in value creation

As Parasuraman (1997, 160) stated in his research, contextual factors are important to look into when researching customer value assessment. Context can be considered as the environment; surroundings that may have an effect on the buying situation. Context is also a big factor to be considered with e-business value. Zhu, Kraemer, Xu and Dedrick (2004, 26–29) suggest that e-business value has to be thought in technological, organizational and environmental context. Technological aspect takes into consideration company or institution readiness to turn technologies to capabilities in e-business. Organizational environment focuses on company features such as size, financial resources and global scope. Environmental context means regulatory factors such as government that can have an effect on the business and competition in the industry. These different factors can affect the e-business value. These can also explain the intention of new innovation adoption in the organization (Zhu et al. 2004, 20)

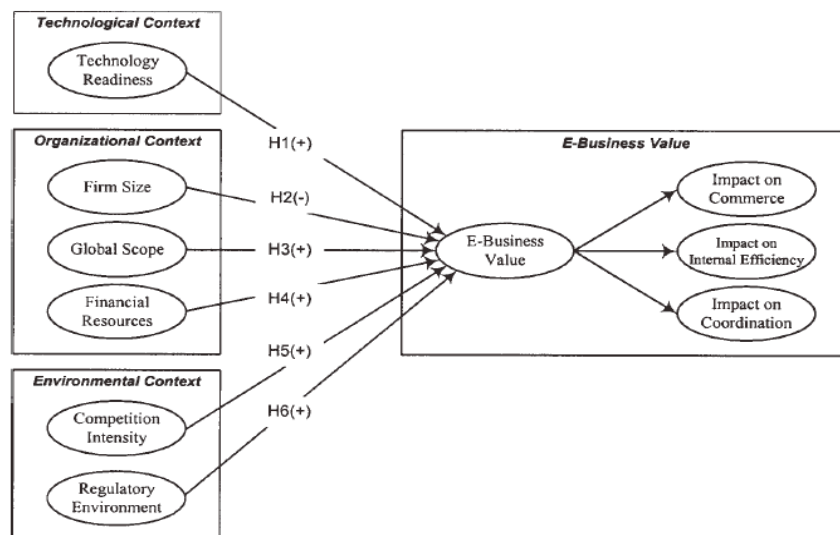


Figure 4. Model of participation and influence in the buying center (Zhu, Kraemer, Xu & Dedrick, 2004)

2.4.2. Value drivers in e-business

Value drivers have been identified and discussed in literature (Porter 1985, Shapiro & Varian 1999, Amit & Schoemaker, 1993) but it is important to find out which sources of value are especially important in e-business (Amit & Zott 2001, 500). Amit & Zott (2001, 503–509) have defined four important value drivers in e-business. These value drivers are efficiency, novelty, lock-in and complementarities. These are sources of value creation either for a firm or for a customer in e-business.

Regarding efficiency as a value driver, greater transaction efficiency enables lower costs and thus better value. Reducing information asymmetry is one way of increasing e-business efficiency. This could reflect in the clarity of the electronic platform and materials. Complementarities means that bundle of goods or services provides more value than the goods sold separately. In e-business this would mean that bundle of products and services could bring more revenue and also value for customer. After-sales services connected to the purchased product could be an example of these kinds of complementarities.

One value driver in e-business is lock-in and it means keeping the customers and not losing them to competitors. According to Amit & Zott (2001, 505–506) lock-in means that “customers are motivated to engage in repeat transactions and that lock-in helps to prevent the migration of customers to competitors”. Trust and known brand name helps in lock-in but also standardized processes in the firm and loyalty programs are a way of keeping the customers. Novelty in e-business means re-structuring transactions. As e-business is not tied to specific site, it gives numerous possibilities for organizing business. Complementary products and also third-parties can be implemented to the offering to increase traffic on the web sites. These four elements are also connected with each other to create value in the e-business. (Amit & Zott 2001, 503–509)

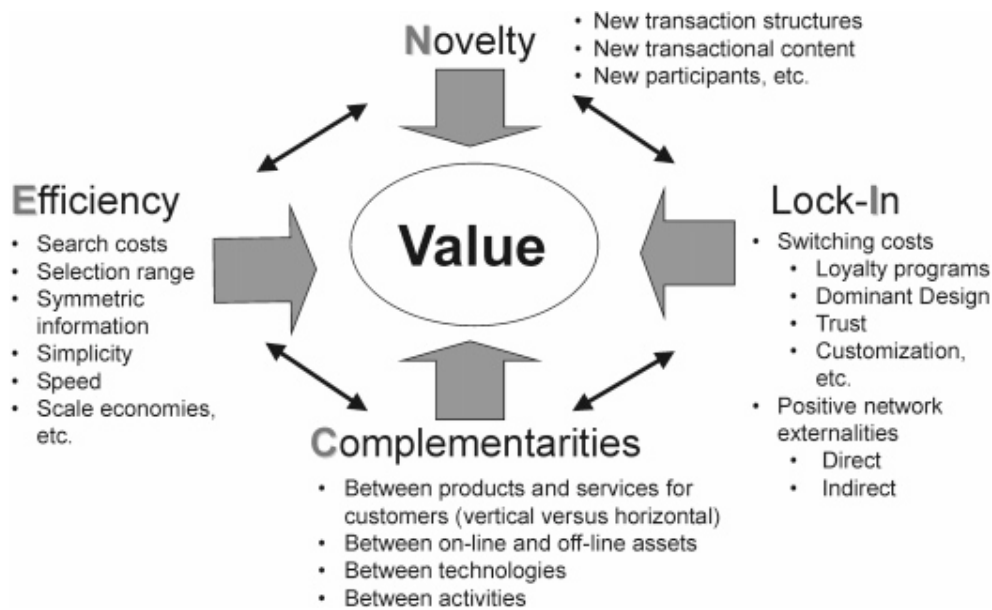


Figure 5. Sources of value creation in e-business (Amit & Zott 2001)

2.5 Theoretical framework of the study

Based on the reviewed literature and pre-interviews done for the purpose of this study this subsection presents the theoretical framework for this study.

Based on the theory it can be seen that there are three main decisions to make when teaching. These are things that teachers and principals need to take into account when making decisions about learning materials. First decision is to think what kind of platform to use. This can be for example OPIT learning environment or another kind from a competing publication company. Municipal authorities currently make the decision about what platform the schools use. The whole municipality is thus using the same platform. Second thing to decide is the book series to use. Nowadays the electronic books and contents are already part of this question alongside with the printed books. Third thing to consider is the equipment to use in the classrooms starting from for example smart board investment decisions and finally coming to decision about student learning devices. These three areas form a body of learning in the class and also the main building blocks of my

theoretical framework.

In this theoretical framework organizational buying behavior is based on the concept of buying center. The elements of buying center; vertical involvement, extensivity and lateral involvement are part of research. (Johnston & Bohoma 1984, 146–147) Participation and influence within the buying center are also part of the framework. These all are considered to be important in order to understand the circumstances of buying in an organization.

Pricing is very important part of business model and bundling can be closely related to the formation of e-business model. The usage of bundling can help the publication companies to get the most revenues out of this picture. New electronic resolutions enable the bundling of products and services to packages that bring more value together than separately. Decisions about price and product bundling and the form of bundling have to be made.

Value drivers are extremely important to understand in order to understand why the consumers are consuming in a certain way. Value actually defines the why of the buying decision (Reid & Plank (2000, 55). This study looks at products and services that can be provided electronically. Thus value drivers for this business needs to be recognized. Amit & Zott (2001, 503–509) have defined four important value drivers in e-business. These value drivers are efficiency, novelty, lock-in and complementarities. In an environment such as school, participation and influence can be key indicators of buying behavior in an organization. To be able bring value to the customers, the producers of the materials need to carefully design their e-business model and that is probably the most difficult task.



Figure 6. Theoretical framework of the study

5. METHODOLOGY

This chapter tells about the methodology of this study. Data collection methods and data analysis in this thesis are described. After that reliability and validity of the study are explained.

“Qualitative research is about making sense and interpreting the world and phenomena through meanings that people attach to them. Things are studied in their natural settings. Interview is one of the many empirical materials that a qualitative researcher uses in one’s studies”. (Denzin & Lincoln 1994, 4–5)

In order to answer the research question: “What kind of things the teachers and principals take into account when buying learning material and service packages?” qualitative research method is taken. Qualitative research method is more appropriate than quantitative method as this study is answering ”how” –questions about people’s perceptions. This is an exploratory study as there is not much prior information of this phenomenon. (Järvinen 2004, 66)

5.1 Data collection

Modified Delphi method is used in the empirical part of the research. Delphi method was developed already in the 1950s in the United States when research was done about long-range trends during time. The method has originally been designed to examine uncertain and complex topics. (Sparrow 2009, 29) Delphi method is an iterative process where experts are interviewed with series of questionnaires. With this method, pre-interviews can be done to gain understanding for formulating the research questions. (Skulmowski, Hartman & Kahn 2007, 2)

In this study Pre-interviews are done to a teacher and an author of school textbooks. These interviews are made in order to gain understanding on the school and learning environment, business and the new eLearning phenomenon. The interviews are done also to test the interview frame and questions. Both of these interviews are semi-structured and the interview follows a thematic structure. The pre-interviews also help to refine the interview questions.

With Delphi method it is possible to find certain patterns that occur in the perceptions of the experts. Expert knowledge is combined in a group and the goal is to come to a group consensus (Donohoe and Needham 2009, 416) The patterns can be used when creating and predicting future scenarios regarding the migration from the printed to electronic materials. The goal is also to form objective perspective about the research settings so that no subjective viewpoint is taken. (Skulmowski, Hartman & Kahn 2007, 1) It could mean that in this study the writer is not taking publisher or teacher's viewpoint but observes as an objective researcher.

These interviews can help to form suggestions of new service bundles in a way that relevant issues and targets can be understood. This also helps when preparing for the real semi-structured interviews in the empirical section.

Delphi method is about asking questions from experts. These questions are usually about opportunities or for example about forecasts of future. (Skulmowski, Hartman & Kahn 2007, 1) The literature review and pre-interviews give a preliminary theoretical and practical understanding of the topic. Research questions can be refined at this stage as well.

Semi-structured interviews are used in the empirical part of this study; these are also called thematic interviews. It is the most used method for gathering data in qualitative business and social studies. Benefits of thematic interviews are that researcher is not completely controlling the situation but

just directing the conversation to right direction. This gives the respondent freedom to tell “stories”, which may give new insight of the topic. The researcher does an interview frame where themes are guiding the questions. These questions are not usually recommended to go exactly according to the theory as it may lead to unclear questions to the respondents. The theory should be modified so that the respondents understand the questions. The answers from the interviews should bring data that can be interpreted with theory later. Advantage of thematic interviews is that it helps to gather interpretations and meanings that people give to the world. This is possible when there aren't strict subjects and the respondent gets freedom to discuss also topics that are not necessarily in the interview frame. (Koskinen, Alasuutari, Peltonen 2005, 104–109)

According to Silverman (1997, 100) qualitative interviews can help to understand and document respondents' understanding as these interviews provide their point of view in cultural reality. Based on the theoretical review and pre-interviews, relevant semi-structured questions are created for the expert interviews. In these focused interviews, interest areas and themes regarding eLearning are guiding the interview. The experts are from three different upper secondary or high schools. From each school, the headmaster and a couple of teachers are interviewed, separately. Reason for this is that other people may have an effect on the way the interviewee talks and tells things. The respondents may superficially answer the way they think it is expected and this way avoiding the possible conflicts in the group (Alasuutari 2007, 153). Headmaster and one teacher are interviewed in the first school. In the second school one headmaster and four teachers are interviewed and one headmaster and two teachers are interviewed in the last school.

The interview consists of three themes. First is organizational buying behavior and buying center is central concept in this entity. Reid & Plank (2000,43) cite Bonoma & Zaltman (1978) who have defined this concept

already in seventies. Research on buying center has found intra-organizational issues such as structure, nature, organizational climate and influence patterns of the buying center. This study is interested in these factors that are used in the decision making process. It is especially interesting if these decision factors are different between teachers and the headmasters. Linked to the buying decision, this research also looks into the pricing from the customer point of view. I am asking how the respondents perceive the electronic learning materials should be priced.

Second theme is value creation. According to Reid & Plank (2000, 55) value defines the “why” question of buying situation. This theme can help to understand the reasons why the organizational buying behavior is certain kind. Questions in this area are about user experience and perceived value of customer. I am asking what is working well in learning materials and what is challenging. This study also looks what attributes the buyers and users regard as important in the learning materials. This way it can be found out what are the valuable attributes that the respondents find in these services. It is especially important to look if these values are different between teachers and headmasters.

Third theme is future scenarios and I am looking how these users hope to see the learning materials to evolve in the future. It is important to see how the users would predict the area to change because that may have effect on the way the publishers should proceed in this changing industry.

The themes are guiding the interviews but the respondents are allowed to talk freely as there are no strict question patters. This can help to find new interesting topics relating to the research themes. In this study the experts are mostly teachers, who are users of the materials and also headmasters who are also making the decisions about the learning materials. The answers and perceptions are going to ultimately help to create future scenarios for different service bundles.

5.2 Data analysis

The interviews are transcribed and read to find thematic structures, arguments and categories. In the analyzing stage, the data is structured according the research questions (Malhotra & Birks 2007). The themes follow these questions and thus this research is thematically analyzed. The first theme in the data analysis is value creation and value drivers of the teachers and head masters. The second theme deals with the organizational buying behavior at the schools. Participation and influence in the buying center are also analyzed. The third theme covers analysis about the service bundling and pricing of the eLearning services.

Interpretative framework is discussing with the theory. Theory and the interview data have a dialogue, which is called hermeneutic circle. Moreover this means that in order to understand parts of the interview, one has to understand the bigger whole of the theory. The theory and data can help each other in a way of finding new ideas and interpretations (Moisander & Valtonen 2006, 111).

5.3 Reliability and validity

Interviews are recorded and transcribed afterwards. According to Silverman (1997: 203) tape recording and transcripts can provide good and detailed presentations of social interaction. Key aspects of reliability are selection of recorded material, technical quality of recorded material and adequacy of transcripts (Silverman 1997, 206). In this study the selection of recorded material is guided by the research question. The aim is to find out what kind of things teachers and headmasters take into account when buying learning materials and how do they perceive value. Three schools are selected, as this is enough to find out what is needed in this research. This is an explorative

qualitative study and thus this research doesn't need as big database as quantitative research. This is because meanings and assumptions of people can be found from smaller set of answers. Three schools also give a possibility to compare headmasters and teachers from different schools.

Having two recording devices in each interview ensures technical quality of the recorded material. This is to make sure that the interview is captured well and the other device is always for back up for the other. The interviews were recorded with the permission of the interviewees. Permission was also asked to ask later questions by e-mail in case it is needed. All the interviews were conducted in the school premises of the interviewees.

Adequacy of transcripts is ensured by transcription of the whole interview; no words are left out. Transcripts will help to analyze the interviews at later stage.

In quantitative as well as in qualitative research central dimension of validity is correspondence between theoretical paradigm and observations of researcher (Silverman 1997, 212). In this research the theoretical paradigm is formed first and it is guiding the empirical part of the research. The interview themes and relating questions are based on the theoretical background and the pre-interviews. This should make sure that there is a correspondence between the theoretical paradigm and the observations that I am as a researcher doing. In the data analysis there is a conversation between the theoretical background and the data analyzed.

6. RESULTS AND ANALYSIS

This chapter describes the results from the empirical data. First, the major findings from pre-interviews are described. Next subsection of this chapter tells about the empirical findings based on the teacher and head master interviews. These findings are categorized thematically in line with the theoretical literature. First part is a discussion about the value creation and value drivers. Second part is an analysis about the organizational buying behavior. One aspect of this entity is participation and influence. Next part of the empirical analysis is service bundling and pricing.

6.1 Pre-interviews

Two persons were interviewed in pre-interviews and the results are described in this section. First part covers results from the interview of book author and the second interviewee is elementary school teacher.

6.1.1 Book author

The interview of the book author gave more understanding on the business. Her view was that teachers are excited about the new electronic materials. According to this author, teachers will be leading more and more the learning process and choose which electronic contents to use. The motivation of the teacher has also an impact on how much the electronic content is used. The equipment that is used in teaching situations is also a big issue to be noted. Right now these electronic contents are just additional material with books. But according to the respondent, the publishers seem to wait for the renewal of new national curriculums because those will have an effect what will be bought to and what will be taught at schools.

According to the respondent, the electronic content can make the teaching easier as the teacher can rely to the materials. At the same time it can be also inflexible. The interaction between students and teachers is very important also with electronic materials. The electronic content raises a concern about overruling the natural interaction in the classes even if it increases the interaction in the Web. The electronic materials should bring value by being motivating but also pedagogically reasonable and working. Interesting point of the respondent was that the books on parallel classes could be different if the teachers decide to choose different books. This reflects the autonomy of the teacher when choosing what and how to teach.

According to the respondent the pricing is mostly structured in a way that the books are charged but the other materials come for free. Most of the money comes from printed material. The electronic materials are not very expensive yet and the price is a lump sum per year per student, class or even whole school.

The respondent is concerned how the electronic materials could be mobilized and used without the needed equipment for the students. It is also a question how the content providers will deal with the issue of Internet. How to charge of electronic materials as so much information can be gained from the Internet for free.

According to the respondent's view, right now there is no great interaction with the teachers and publication companies for example on the fairs. The author suggested that the publication companies could be more proactive and contact teachers.

6.1.2 Elementary school teacher

The other pre-interviewee was a young teacher in elementary school. The teacher is using traditional books but also OPIT-web environment for exercises. She tells that municipal authorities usually decide what platform is used. Then the teachers can choose what kind of learning materials are bought to schools. Additional materials are also used, as there is no money for exercise books in every subject. The books are recycled to the next classes for cost reduction reasons. Parallel classes can have different books if that is necessary. Thus, this came up in both of the pre-interviews. The electronic services and materials have not been so widely presented to the teachers yet and printed books are still the most used method in teaching.

The exercises in OPIT learning environment are following the themes of the textbooks. However, it seems that these exercises are still kind of extra material and the teacher is not so much controlling how the students are doing the exercises in the electronic environment. The students can work on the electronic environment quite freely without strict supervision. The interaction functions are not used in the class either. The usage is maybe not so convenient as the students use this electronic environment currently only in computer classes. They are not using it at regular classes, as there is no equipment.

The teacher emphasizes the importance of clarity with the learning materials. So this teacher thinks that clarity could be one value driver. She thinks that all subjects excluding art subjects could work on electronic environments. Some kind of projects could also be executed in the environment, not just separate exercises.

The teacher mentions the smart board with interactive features like sounds. These kinds of boards are used at almost every school. This kind of learning equipment could motivate the students to study and learn more and increase the interaction within the classroom. The Parents Association financed the

purchase of smart board of the particular class and other classes at school as there were no resources otherwise to buy those. This example shows how unorganized these new ways of teaching and use of devices are. In this school, there was no support from government, municipality or publication companies so the Parents Association had to finance the smart board equipment.

The respondent can see future with electronic materials but sees a challenge with equipment. As the students are using devices, there is no certainty that they are actually studying. The electronic content might also increase the workload of the teacher if preparations of those materials take more time than preparation with printed material.

The teacher mentions that there is not so much education of these electronic devices and contents on the education programme of the teachers. That should be taken into consideration when educating new teachers. Moreover the publishers don't give education of how to use the electronic materials. However, municipalities are offering some education for the teachers.

Based on these pre-interviews it seems that the electronic materials are not yet so widely used. The basic pillars of eLearning at schools seem to be the learning platform, learning materials and the equipment. These factors should definitely be taken into account later in this thesis. Some value drivers such as clarity could be found from the pre-interview data.

6.2 Value creation and value drivers

Certain value drivers definitely rose from the interview data. Most important thing seemed to be the clarity of the learning material. Almost every respondent mentioned this as the factor they consider when making the decision about buying learning materials. It was also the most common answer for the value drivers in electronic materials. This was thus value

driver for both; principals and teachers. One headmaster and a teacher mentioned the problem that the books right now are too full of material and there is no time to go through everything. This also makes the teaching harder. They emphasized the importance of clarity and controllability of the material. The possibility to edit the material, malleability came up in many of the answers. It is important for the teachers to know that they can use the given material but that they have also the possibility to edit it their own way. This clarity relates to the concept of efficiency, which is one of the value drivers defined by Amit & Zott (2001). Clarity of the material is needed in order to teach efficiently while using the material. There should be a right amount of material as too much may lead to a frustration and feeling of not being efficient enough.

Another value driver for electronic material is the possibility to get current information for teaching. For example social studies is a kind of subject that really needs timely information as circumstances in the society are changing.

Social studies teacher describes this in the following way

“...upgradability. And that it is always up to date and one could always trust that... it is always up to date and reliable...”

Thus novelty is a value driver for many of the teachers. The material needs to be up to date to give added value to the teaching. Ease of use for the teacher and for the students was also one factor. This came up in many of the answers but in different ways. Some teachers emphasized that it is important to get material that doesn't need necessarily any editing or preparation for the class from the teacher. This can mean for example finished Power Point slides as it makes the teaching easier. This can also decrease the time that the teacher has to invest for preparing the lessons. Namely, according to the teachers the preparation of the classes can take a

lot of time. Basically one can use all of the free time to prepare for the classes. This way the finished material in a way makes the preparation easier and less time consuming. This can be related again to the efficiency as a value driver.

The most interesting point of this issue came up in one of the principal interviews. This principal said that the publishers have actually made the teachers lazy, as they don't have to do or prepare the material at all themselves if they don't want to. So this is criticism against many of the teacher answers, as many teachers wanted the teaching to be easy. . This principal also suggested that teachers should actually be co-authors of the materials and combine different information and knowledge from different sources. This theme can relate to the importance of teachers in the learning environments and in the adoption of new electronic materials.

Motivation of the teachers to use electronic learning materials came up in many of the answers either directly or indirectly. The teachers used the electronic materials on very various amounts and ways. Some of the teachers did not really use any electronic materials and some prepared basically all the lectures with the electronic materials and used those also during lectures.

The teachers gave different reasons why they had not started to use the new materials. One of the most common was that they did not think it is so suitable for their subject. It was interesting however that in one case same subject teachers gave very different kind of answers. One teacher said that their subject is very good for electronic materials and other said that it is not very suitable. Another reason for not using electronic materials was that the teachers thought they have to use their own time to learn how to use the new equipment and prepare the lessons with them.

Motivation of teachers clearly is one of the big issues of adopting these new ways of teaching. This was acknowledged among the teachers and the principals.

Here is a quote of one of the principals

“...teachers are here the bottleneck...there is also the attitude problem... but it is the supervisor’s challenge that you won’t let anyone fall behind...”

The respondents admitted that there are big differences in the skill levels of teachers in Information and Communication Technologies. One of the principals said that motivation is the biggest issue right now. Based on the interviews I found three different types of teachers. According to this principal the teachers could be classified to three different classes according to their activity level. Pilot teachers use the electronic materials a lot and are familiar with the needed equipment. One pilot teacher at one of the schools even tried some new methods. They were given the needed equipment and materials and they tried how this way of learning could work. Some of the pilot teachers even got money for teaching other teachers in things they were good at.

Then there is next activity class of mediocre users. This means that the teacher is using some of the electronic environment and material and prepares some new things for the classes. The last class of teachers is the ones who don’t really use any new electronic ways of teaching. With these teachers the limit is telling students a good website they can go to or using some kind of lecture material that is made by the publisher. It came up in the answers that the older retiring teachers are especially challenging because they do not want to start learning these new techniques in the end of their career. This of course can put students to unequal situation, as they will have a lot of eLearning on some classes and in some classes not at all.

Equipment was one big concern for the respondents. All the respondents had worries about what happens if the book will disappear. This would mean that the students should have some kind of devices (e.g. laptops, tablets, smart phones) that they could use for the classes and learning. Many of the respondents were doubtful about where the money for those would come. One school had already an idea that every student could bring their own laptop to school and use it there. This may be unfair for those kinds of students that don't have the possibility to do that. Another concern regarding the equipment was the connection and electricity problems. They had worries that suddenly the programs or devices would not work and the class would miss the materials they needed.

Also infrastructural things such as the Internet connections and power supplies to the laptops were things that were worrying the teachers and principals. These concerns can relate to the complementarities and in a way also to lock-in value drivers. The publication companies should carefully consider how to tie their materials to platforms and equipment with potential partners to provide product and service bundles. Collaboration partner could help to provide the services to the schools where the equipment issues are clearly worrying the teachers and principals.

The teachers were not sure how to deal with copyright issues currently and especially when the electronic materials would be used more. They were not sure how, for example pictures, should be used and how to show references on the classes. This can also lead to discussion about how the publishers will take care of the copyright issues in case there are materials, which have links to the Internet websites.

6.3 Organizational buying behavior, participation and influence

Organizational buying behavior decisions were two-fold. In all of the schools the learning platform decisions were made in the municipal administration. Thus with platform the number of hierarchical levels is very small as the decision is basically made in the municipality. The schools themselves are not so much involved vertically in the platform decisions. However learning material decisions were made in schools. The learning platforms were mostly used, as communication channels where information is shared. Even the parents of the students could log in and notify for example about an absence of a student. Some teachers used these platforms also as data banks where they could upload the class materials and some exercises. It was also a tool for checking the attendance in classes.

The decisions about books and other learning materials were made mostly among teachers. Here is a quote from one of the principals

“... my role is very small after all... actually I do not think that I have the competence to intervene in it...”

The principal however has usually the final say but only one of the principals actually said that he has the power to decide. Here is a quote how he feels the buying process proceeds

“...when thinking text books, book materials, I decide. But I don't decide like a dictator of course. The teachers first present their hopes and needs...”

The extensivity level is usually fairly high as there are several teachers making a decision together about the learning materials to use. The other headmasters emphasized that they only have the formal decision but basically they don't participate in the decision-making. Mostly these

principals said that they participate if there are changes in the book series in the middle of the year or if there are other peculiar decisions. The teachers basically have the freedom to decide themselves about the learning materials. The teachers of the same subjects get together and discuss about the new learning materials.

Only one of the teachers said that they have had some disagreements among the teachers. In this case a retiring teacher did not want to change the book series just before the retirement. It is interesting that one of the principals said that there is no requirement for the older teachers to start to use the electronic materials. On the contrary another principal said that no teacher should be left behind, that it is the principal's responsibility to keep everyone "on board".

None of respondents had found conflicts between teachers and principals when making the buying decisions. One principal just said that sometimes there is a need to look again if the budget is exceeded. So actually the lateral involvement level is not very high; the decisions are made mostly on one level (teachers) and the headmaster has just a formal power to accept the decisions. Budget issues is an exception, headmaster may prevent the buying decision in case the budget is exceeded.

One principal also expressed concern about the vagueness when making the buying decision about electronic materials. This school had had bad experience about some electronic materials that sounded good before buying. But it was noted later that it did not meet their expectations and needs. Now the school has to pay a yearly fee and it is hard to retreat from this contract. These principals and also other respondents emphasized that there should be a possibility to test these learning materials thoroughly before making the decision to buy.

Participation and influence came up in many of the answers. The teachers have a quite big influence when making the decisions. The situation depends on the structural and personal characteristics, as the teachers have to make the decisions together. Decision may be very different if there are two teachers versus six teachers making the decisions. Regarding personal characteristics more outspoken persons may get the decision they want. Personal motivations to proceed to electronic materials have also big effect on the buying behavior. The mentioned risks of retiring teachers with low motivation to move to electronic materials, is one example of this.

6.4 Service bundling and pricing

The respondents felt that it is hard to think about the pricing of the learning materials. The first reaction for most was confusion and that it is a hard question to answer. Finally the answers varied quite a lot. First of all, some of the respondents did not believe that the books would disappear any time soon. Thus these respondents thought that the books should be paid and the other materials should be free. Many teachers also voted for the option that the teacher's materials should always be free.

It was interesting to see that the first reaction usually was that the electronic materials should be cheaper than the printed material. However after some thinking most of the respondents came to a conclusion that the electronic books, for example, could cost the same as the printed books or even more if there are possibilities to connect the materials to Internet and there is possibility to update the material. So clearly there is a niche for the bundling of these materials. Printed books need to stay in the market first, alongside with the electronic material.

The pricing of electronic materials is not really clear right now. This can be seen from the answers of the respondents. The difficulty of saying how these materials should be priced describes that the teachers and principals have

not gained enough knowledge about these materials. According to Naylor & Frank (2011, 272–274) price bundling can have an effect on perceptions of value. The teachers and principals most likely want to know what the eLearning package will include or will it contain also some extra costs, this way describing money inclusiveness. They may also feel disappointment or delight regarding the service package. For example, most of the respondents thought that the electronic materials should be free if they are side to side with printed books. If the electronic materials would cost something, it would in this case lead to a disappointment and this way their perception of added value may not be very high.

When two or more services or products are integrated and sold at any price, it means product bundling. In learning materials this could mean printed material, electronic material and teacher's material (printed or electronic) This kind of bundling can offer added value to customers in a form of convenience for example. It could be for example convenient to have books for reading but have all the exercises in the electronic form. Also the teacher's material could be in electronic form. According to Stremersch & Tellis (2002, 56–57) product bundling is more long-term differentiation strategy. Thus the publishers should use product bundling and in fact in this kind of transition phase it is very necessary. According to Stremersch & Tellis (2002, 57) pure bundling means that the products can only be bought in a bundle and not separately. They also describe how pure bundling is good for new products and services. This is because with pure bundling customers have to get familiarized with the new product and they are more likely to try it.

Now when looking the learning materials, if they are purely bundled, it means that the teachers and principals would not be able to make the decision to buy only printed books. They would have to buy the bundle, which could still include the book but it would also include the electronic

materials. This kind of bundle will be needed in the transition stage, as there is not yet enough equipment for only electronic materials.

The teachers see a huge challenge with the needed equipment; here is an example of this kind of concern.

“who gives the resources, I would be ready to shift to a situation where everyone has laptops... it would still need quite a lot of developments”

The teachers acknowledge the need of investments but they still see that the transition is possible as it can be seen from the next quotation of a teacher.

“...then it would mean that everyone would have the laptops... and in some countries this is already happening. But I really mean that a big investment has to be made to technology. But why not. I think we are all the time going to the direction of eLearning....”

Sunk cost effect means that the customer is more likely to consume if time, cost or effort have been invested (Arkes & Blumer 1985, 124). This actually came up in one of the interviews. One teacher described the need to use the material as it had been bought:

“...and then I have experienced a little bad conscience you know, that I make them buy this kind of 30 euro book and then if it is not used enough, so I have taken some essay themes from there like almost forcibly...”

This is of course indirect; as the teacher has not bought the book as in Finnish high schools the students buy the books. However the teacher has spent time to make the decision about what kind of material the students use. This can be related to the problem of not knowing what to buy until one actually uses it. This example was about printed book but the following is

about electronic material. The principal of the school describes how it can become a problem of not knowing exactly what to buy:

“... in language teaching you can get more eLearning however, it is pretty expensive, and yet it has now been found that it's not practical then, and a little difficult to use. And it is pretty much to pay for the license per year. And if it goes to this that the programs are expensive and you are not really able to know how they work...Or, there must be a certainty, that if you buy something expensive, you should know that it certainly works...”

So the problem here is that the teachers and principals decide on the learning materials just based on the descriptions of the publishers. It would be important that there is a possibility for the teachers and maybe even for the students to try out the electronic materials for a while before making the buying decision.

The principals in the interviews were quite different when comparing them with each other. One of the principals was very excited about the possibilities of electronic contents and materials. In fact this principal was seeking new ways to teach and learn with the new platforms and materials. This school was even actively presenting their own ideas to the Board of Education and trying to take the learning experience forward. Then again one other principal did not really seem to be overly excited about the electronic materials. This principal did not really even know how much these materials are used in the school.

Based on the interviews there are certain themes that need to be analyzed more thoroughly. First is the service bundling and pricing from the point of view of the customers and users. There will be discussion between the theory and the interview data. Second theme will be the motivation of the teachers connected to the value creation and value drivers literature. Third theme will be the organizational buying behavior and decision making.

6.5 Future scenarios for the service bundles

This part of the thesis is lining future scenarios for the service packages based on the theoretical framework and empirical material from the teachers and head masters. Basically it discusses the advantages and disadvantages of the three suggested service bundles.

Assumption about the service bundles in this study was that first bundle would include traditional printed media and optional electronic material. Second bundle was assumed to have printed material with compulsory electronic material and finally the third only electronic material. Based on the empirical material these assumptions seem to be true. Very important point from the teachers was that the books couldn't disappear instantly.

The first bundle can be supported as the respondents stated that the books should be available and those could be paid for. The respondents said also that the electronic material should be free first. It could be assumed that in this stage the electronic material is not considered as the main material for teaching. Disadvantage of this kind of bundle is that it doesn't support greatly moving to the electronic content. It could create a feeling of resisting the new electronic environments and sticking to the traditional books as it is still possible.

The second bundle consisting of printed material and compulsory electronic material could be true as well. The teachers and headmasters saw the possibility to move to electronic material, if the equipment is up to date. Gradual migration is easier as it gives time to the teachers and students to get used to the new way of teaching and learning. The electronic material usage can gradually increase at the same time with decreasing printed media usage. For this however, some kind of generic guidelines for teachers should be created so that the migration would be similar in different schools

in Finland. Disadvantage of this kind of bundle is the resistance to change, as some contents would be compulsory to use in electronic form. However the first bundle gives a softer approach for the teachers. Option to use the electronic materials can help to get used to them.

Third bundle including only electronic material could be possible in the future according to the empirical material. This again requires time, as factors such as investments to devices need to be considered carefully. Maybe the biggest finding of the empirical material was the concern about the investments concerning this new electronic equipment such as the devices and Internet connections at schools. Consequently the disadvantage is the investment to the devices, which will be used for the electronic service packages. Who will be ready to make those investments?

The suggested product and service bundles are described below.

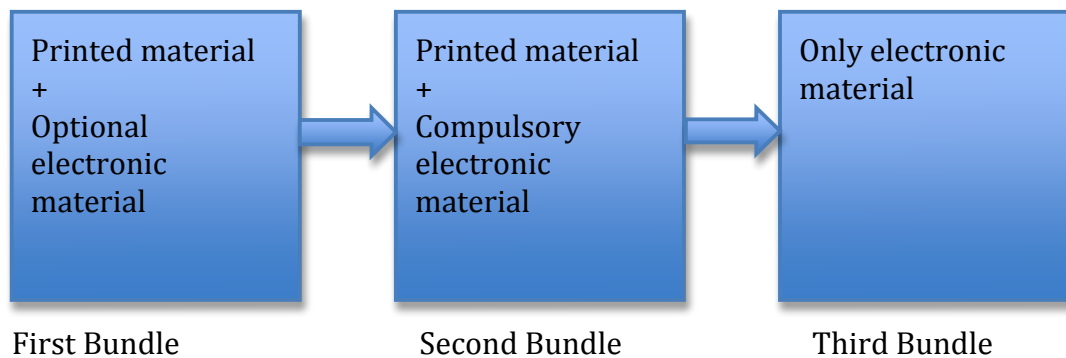


Figure 7. Product and service bundles

6.6 Timetable scenarios for the service bundles

This subsection of the study describes the timetable scenarios for the product and service bundles. These scenarios are suggested based on the theoretical framework and empirical data.

Based on the findings on this Master's Thesis it can be suggested that the first bundle can be offered to customers and in this case to schools instantly and in a way this is happening already. Teachers have some electronic materials, which they can use. The students also have access to electronic environments where they can for example do exercises and return homework. In this first bundle book is still the main learning material, which teachers and students use.

It is possible that schools can start using the learning materials according to the second bundle quite soon. However, the students and teachers would need the equipment, like for example laptops, to be able to use the electronic materials effectively. Options are that the students bring their own laptops to schools as one of the head masters suggested. Other option is that the devices are provided for the students. Financing of this equipment however needs to be figured out. Because of the financial factors the second phase may need 1 to 2 years time to happen. This is because it needs to be decided who is the party financing the equipment for the students. At this time one scenario could be that this would happen in 2012 or 2013. This second bundle can gradually grow the usage of electronic materials so that the 2015 could be the year when half of the material would be in electronic form.

Third bundle consisting only of electronic content could be possible in the future. However seems that the equipment and connections at schools need to be planned at schools first to enable the usage of pure electronic materials.

The transition is wise to start from the high school level where I also made most of the interviews. The students at this level are old enough to learn new ways quickly. Publication companies have stated that upper levels can also bring higher revenues. This can be based on the assumption that on the upper levels the students are buying the materials themselves every year. (Opetushallitus 1) This means that the materials are not so often reused. In the elementary schools the books are bought to schools where the books are then recycled to new classes. The learning materials are free for the students. (Opetushallitus 2) So it is more fruitful to start the transition from the upper levels.

7. DISCUSSION

In this chapter the main findings of this research are described based on the literature and the empirical data and findings.

The main research question is “What kinds of things the teachers and principals take into account when buying learning material and service packages?” In order to answer this question value creation theory and organizational buying behavior theory were chosen to serve as the theoretical foundations of the study. According to Reid & Plank (2000, 55) value defines the “why” question of the buying decision. Thus value creation and value driver literature can explain why the teachers and head masters are buying certain way. Service bundling and pricing were found to be very important in e-business model creation according to the literature.

This study covers also literature about business models and service concepts in e-business in order to understand how to actually do business in electronic environment. These are covered also to understand what are the implications for the service provider based on the value drivers of the respondents.

The theoretical framework builds on the concepts of platform, materials and equipment. All the other concepts and analysis wrap around these. This is because these are the kinds of things that teachers and principals need to take into account when buying learning material and service packages. Publication companies need to think carefully the platform where the materials can be used. Equipment in form of devices came up in the pre-interviews several times and these devices are needed for efficient use of electronic materials. The new material cannot be used efficiently if the students and teachers do not have the needed equipment for use.

Value creation and value drivers are essential to understand when creating new business models. Based on the empirical material the teachers and headmasters value clarity in the material the most. There shouldn't be too much information, as the teacher needs to feel that the lecture and classroom can be controlled. Thus efficiency is something to focus on when creating the new electronic materials. Novelty is also an asset that is desired. The material needs to be up to date and also editable so that the teacher has an opportunity to edit the material to be suitable for the class.

The empirical data answers the research sub questions about "How is the value of service packages perceived by the teachers or principals". These perceptions between teachers and head masters did not really conflict, as stated earlier. Interesting is that the perceptions conflict actually between head masters from different schools. This was not expected and it would be fruitful to do further research between different head masters and compare them in adopting new learning systems to schools. This study already showed that different schools are in different phases regarding proactiveness and motivation towards these electronic materials and platforms. Schools with proactive head masters are already pioneering in some things. Where as in other schools the usage is on the shoulders of few active teachers. These teachers may not have the authority to decide what actually happens in the schools regarding the learning materials and especially the equipment to use. Based on the interviews I also found that teachers could be divided to three different activity classes. The high users are the proactive teachers that are even ready to test new ways of teaching. The next activity class is mediocre users who use the electronic contents a little but not as a main learning method. The last activity class are teachers who do not want necessarily use the new electronic learning materials at all.

Based on this research organizational buying behavior happens on different levels. Right now the decisions about platforms are made in municipalities.

So the marketing for platforms needs to be done on those levels. Thus there is quite big vertical involvement but those hierarchical levels are not at schools but in the municipal authorities. Of course the learning materials need to support these platforms and here teachers mostly make the decisions. Lateral involvement meaning the number of the departments involved can be large if many departments in the municipalities take part in the decision-making. Extensivity depends on the number of the people working in the different departments.

Learning material decisions are made at schools and the extensivity varies according to the subject. Usually decisions are made among the teachers teaching the same subjects so the extensivity can be from small to rather large. Lateral involvement with learning materials is quite small as the decisions are mostly done in the same department.

Organizational buying behavior depends also on the factors of participation and influence. Based on this research there are three factors that have impact on these. Those are conditions of purchase situation, structural characteristics and personal characteristics. These kinds of things can be hard for an outsider to see. Structural characteristics are possible to understand with little on-site research and a few questions. The routines for teachers when making the decisions, together, have been described. More described structural characteristics in municipalities would need more empirical research on the site. Conditions of purchase situation would also need more empirical investigations. But it can be stated that financial aspect is one factor to think about with also the curriculums set for the schools. Municipalities and schools then think together what value drivers set them to make decisions.

Personal characteristics depend on the persons making the decisions. It is possible that the more powerful and outspoken people can have one's will. More motivated people are also more eager to lead the change in school

world and can be valuable for the publishers that want to provide new ways to learn. Personal characteristics are good to acknowledge as a part of organizational buying behavior. However it is not really possible to know what kind of personalities are making the decisions so that kind of segmentation is not really possible. However based on the empirical material it could be seen that some teachers are in a way pioneers with the electronic materials and those people could be useful in new kinds of product launches to promote the materials to their own schools and also to give valuable user experience. To find these people is again the key issue. It requires big investments to find them in each school. It could be possible to try to motivate these “pioneers” some way so that they could contact the publishers themselves.

As stated before, the head masters can be great motivation builders. Proactive head masters can put pressure on the teachers to accept the new ways of teaching. Thus, publication companies could organize some educational occasions where the headmasters from different schools could come together to discuss about the current changes. This way the headmasters could get support from each other and the more active headmasters could motivate others to change. One of the interviewed headmasters was a good example how much things can progress if people have visions and urge to implement some changes.

Resistance to change cannot be avoided, which could be seen from the empirical data. However with the help of the pioneer teachers and proactive headmasters it can be diminished. The teachers and headmasters just need to see that new technology and equipment may be in fact, better than the old ways of teaching.

Some implications can be stated for the service providers. The design of e-business model requires decisions about complementarities, which are also sources of value creation. The publication company needs to think what

products and services are self-provided and what third party such as device providers or municipality could provide. The transition to electronic materials cannot happen instantly firstly because there is resistance to change.

To make the formation of e-business model and service bundles even more complicated the pricing has to change from traditional business model. Based on the theoretical literature and the interviews, bundling of products and services is very good option. As there is still resistance to go entirely to electronic materials, it can be suggested that the publication companies still provide the printed books but offer some materials only in electronic form. This is also a good way to “lock” the schools to use some electronic materials and this way get used to it. Thus it can help the teachers to get used to the new way of teaching. After that the books can be offered also in electronic form. However at this stage the equipment issue needs to be solved. It is not clear yet who is making the decisions about the equipment that the students use. One headmaster in the interviews suggested that in high school the students could bring their own laptops and thus it doesn't require investments from the government. One future scenario is also that the government will sponsor the learning devices for the students.

Actually these elements of value drivers can help to create the suitable e-business model as these are all connected. This is a fruitful chance to provide product and service innovations as new kind of offerings are made to schools. Based on the empirical material, better electronic environment was requested. These environments need to be credible and user-friendly. Right now the feedback about learning platforms were that those are old-fashioned and inflexible. Infrastructure management is a key issue when developing these environments. The company needs to think, what is it going to do. Partner networks need to be configured. Third parties can be valuable when providing big service and product packages.

Board of Education in Finland has suggested that by 2015 half of the school material is electronic. (Turun Sanomat) It is not exactly clear what is meant by this goal. But I suggest that it means that certain sets of materials are books and certain compulsory to use as electronic materials. This could mean that certain subjects would be using more electronic materials than others. But it could also mean that for example text books would be in electronic form and exercises still as printed books and notebooks. Equipment investments need to be made at the same time, already together with the first bundle. Government, municipalities, publication companies and schools need to think together how these investments are feasible.

No one can really know right now what will happen in the future or what the actual timetable is. This industry has multiple different factors that in their own way can have impact on the way the future shapes itself.

Publication companies have a huge responsibility and pressures to respond to the changes. Business should bring revenue in the middle of changes. The government needs to start thinking what investments need to be made to schools. Decisions about the equipment to be used need to be made. What are the budgets for the equipment? New tablets for each student for example, just may be too much. The taxation of the electronic materials in Finland (23 percent) compared to printed books, 9 per cent is not really supporting the change either. Maybe this is also something to think about. Has the society been prepared to these kinds of changes? The change cannot happen itself; it needs also support from government and some changes in the society.

Municipalities need to be active as well as they are currently mostly deciding what kind of learning platforms the schools are using. Usually the same municipality is using the same platform in every school. In order to have the platform and the material working together, the teacher should

basically choose the material from the same publication company. This can generate controversy as the teachers may think that the material from certain publication company is not the best. Yet still they are required to use certain materials as the platform from certain company has already been chosen.

Teachers and headmasters are also responsible to envision how the classroom will look in the future. They are the people who can bring changes to schools regarding learning materials. They need to be the ones motivating the students to use the new equipment and material and adopt new ways to learn. It may be possible that many students are already more familiar with electronic equipment and Internet world than some of the teachers. Maybe active students could be also potential pioneers to promote this learning to their fellow students.

This thesis helps to understand that publication companies cannot make the decisions on a change of learning materials in isolation of their environment. The value drivers of teachers and principals need to be recognized. Government and municipal authorities need to support the electronic materials and platforms. Municipal authorities have to be in close cooperation with the teachers and headmasters so that the platform and the material are chosen together.

Decisions need to be made about the length of the contracts. In empirical data, one headmaster was worried as the chosen electronic material did not meet their expectations and they were stuck with the contract. Schools probably need some flexibility with the platforms and materials. Long contract would be beneficial in terms of profits to the publication companies. But it should be noted that these could frustrate the teachers.

7.1 Managerial implications

This study generates some implications for the corporate world and these are described in the following subsection.

Clear contradictions could not be found between the teachers and headmasters regarding value drivers. However the differences between the headmasters stood out. Even though teachers are mostly doing the buying decisions, the head masters are deciding the direction where the school is going. The headmasters have the power to create a common atmosphere regarding attitudes towards these new ways of teaching. If the headmaster is not following the current changes, and especially if those changes are not responded to, it is possible that the schools of these head masters will fall behind other schools. Proactive headmasters can put some pressure to low-motivated teachers and help them to get used to new ways. If there is no support for this from their supervisor, it is hard to see for them why these new ways are better than the old.

As the clear value drivers for the teachers seem to be clarity and novelty, these need to be thought when developing service platforms and learning materials. Internet gives endless opportunities for the service provider but it also sets a challenge. It needs to be thought what contents are updated and how often. Are links for example included in the electronic books? Clarity needs to be emphasized in this as well. The learning material must not be full of different sources of information because that erases the clarity of the material. The clarity factor should be considered also when designing the service platform and the materials as it makes the usage easier. This can help to motivate the teachers to use these new ways of teaching and also reduce reluctance to accept electronic material. Gradually proceeding helps the teachers and students to adapt.

Pure bundling of the printed media with the electronic media can be definitely recommended as this can prevent the teachers and headmasters

from buying only printed media. This supports the transition from printed to electronic materials. There is however a threat that the printed media is purely used until there is no possibility to use that anymore. That is why I suggest that the transition is not too long.

7.2 Suggestions for future research

This study provides the following propositions for further research.

First, as the learning industry is currently changing, it would be fruitful to do a longitudinal study that would follow what kinds of changes occur. User experience about the learning platforms and device use could be done in this kind of research.

Secondly, national research could look at the changes along certain timeline and investigate how different schools are adopting these kinds of changes. Thus quantitative research could be done in order to acquire knowledge about the whole country.

Thirdly, organizational buying behavior could be researched among municipal authorities. The relationship between value drivers of municipal authorities and their organizational buying behavior is still unclear. It could be also interesting to look for reasons why the learning platform decisions are currently made in the municipality level and not on the user level at schools.

Fourth, it would be fruitful to do research between head masters from different schools. Thus, it could be followed how the adoption of new learning systems may differ depending on the head masters' motivation and attitudes.

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Appendix 1. Interview Framework

Kerro itsestäsi ja taustastasi.

- Mitä ainetta opetat? Kauan olet ollut täällä töissä?
- Millaisia oppimateriaaleja käytät? Miksi?
- Mikä niissä on hyvää/huonoa?

Organizational buying behavior

Ostamiseen liittyvät seikat:

- Mikä on oma roolisi päätöksenteossa?
- Kuinka usein hankintoja tehdään?
- Mitä asioita otat huomioon päätöksenteossa (tärkeät asiat)/ mikä kannustaa päätöksen tekoon?
- Miten mielestäsi sähköinen oppimateriaali tulisi hinnoitella (mitä valmis maksamaan)?

Value creation for customer (WHY to buy) Käyttökokemus ja asiakkaan kokema arvo

Käyttökokemukseen liittyvät kysymykset,

- Mikä on toimivaa ja mikä toisaalta haastavaa erilaisten oppimateriaalien käytössä (oppilaan, opettajan, rehtorin kannalta)? Miksi, esimerkkejä
- Mitä asioita pidät tärkeänä oppimateriaaleissa/miten arvioit niitä? (toiminnallisuus, sosiaalisuus, uutuus)
- Päivittäisestä työstä esiin nousevat seikat -oletko käynyt tieto –ja viestintätekniikan koulutuksissa?

Future trends

Tulevaisuuden näkemyksiin liittyvät kysymykset:

- Miten uskot/toivot oppimateriaalien kehittyvän tulevaisuudessa

Miten näet siirtymän sähköiseen materiaaliin (mahdollisuudet, aikataulu)?