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**ORGANIZATIONAL BUYING AS AN ANTECEDENT OF TASK-TECHNOLOGY
FIT BETWEEN PURCHASE PROCESS IN HOCKEY CLUBS AND E-BUSINESS**

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ABSTRACT

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Recent non-academic publications discuss that increasing number of consumers manage their relationships with enterprises without human interaction and estimate similar shift among the organizational buyers. Adoption of Internet technology and its influence on B2B buying also received attention from academics and represent relevant course for research. Literature review revealed that there is limited amount of works illustrating B2B buying and associated role of e-business tools for the specific industry context.

This study aims at investigation of organizational buying in order to identify what activities provide potential for support through e-business. The context for the study is apparel and equipment purchase by ice-hockey clubs. Buying organization represented the unit of analysis and multiple-case study was implemented among six Finnish ice-hockey clubs.

The results illustrated activities within different stages of the purchase, buying participants and their roles, discovered that supplier selection can be described as simple modified rebuy and buyer-seller exchange relationships can be conditionally characterized as routinized, which are amenable to automation. Findings revealed limited current utilization of technology tools for communication and transaction purposes during the purchase. Supported by the literature on e-business, the study identified potentials of electronic storefront providing access to buyer-specific catalogs of pre-contracted items, database of purchase history and functionality for order placement. These findings equip practitioners with insights for marketing and customer relationship management.

The study contributes to the literature by agreeing on inconsistency associated with viewing organizational buying as a sequential process, it also confirmed the dynamic nature of buying center and gave example of cases in which external organizations served as a buying participant. The study also commented on the attempt to utilize newly proposed framework of B2B buying modes for the description of buyer-seller relationships.

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For me this thesis is a result of a learning process about both the topic and myself, the greater portion of which remains beyond this paper.

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1. INTRODUCTION

1.1 Background

Digital technologies have been transforming marketing strategies in both consumer and business markets for several decades. Advancements in information and communication technology have brought new opportunities and have led organizations to adapt their business infrastructure to the new digital era (Bharadwaj et al. 2013, 472). The transformation driven by the digital economy is experienced by both internet actors and traditional companies; and the developments lie in the changes in the industry value chain, a growing importance of services, and evolvement of new business models focused on an extended value proposition and cooperation with customers (Delmond et al. 2017). Research areas relating to the adoption of digital and interactive technologies as well as its implications on the customer behavior and outcomes of business operations represent a relevant course for the academic exploration (Bolton & Saxena-Iyer 2009, 95-97; Varadarajan et al. 2010, 107; Kannan & Li 2017, 38). Indeed, the comprehension of intended users' acceptance and usage of technological innovations has significant managerial relevance in both consumer and business markets.

Gartner (2011) estimated that by 2020 customers will manage 85% of their relationship with the enterprise without interacting with a human. The similar shift of business buyers towards self-service is also predicted to be significant (Johnston 2017). Therefore, companies should be ready to respond to the expectations of millennials, digital natives who represented almost half of professional buyers already by 2014 according to Think with Google (2015). Researches and practitioners note the importance of understanding of how digital technologies influence relationships, networks and buying in B2B context (Ritter & Gemünden 2003, Wiersema 2013, Grewal et al. 2015).

This work relies on the propositions that different technologies support tasks with different characteristics (Gebauer & Scharl 1999, Gebauer et al. 2010) and that the nature of relationships and interactions between selling and buying organization is an important factor of inter-firm technology adoption (Osmonbekov 2010; Asare et al. 2010). The underlying

framework of this study is based on the theory which explains that the success of any information system depends on the extent to which it fits the user's task (Goodhue and Thompson, 1995). With buying organization representing the unit of analysis, the goal of the study is to explore the organizational buying in order to get insights into what e-business tools can support the purchase process. The industry context of the study is ice-hockey equipment and club apparel purchase by sport clubs.

1.2 Literature review

The literature review presented in this section is built on several streams of research: technology adoption in an organizational context and particularly in B2B transactions, organizational buying and technology role in the purchase process. It helped to compose a framework for this study and suggested questions for research.

Technology adoption in an organizational context

The theory of technology adoption in an organizational context suggested by Goodhue & Thompson (1995) emphasizes the significance of task characteristics. It utilizes a construct of *Task-Technology Fit* (TTF), the degree to which a technology assists an individual in performing his or her own portfolio of tasks. The antecedents of TTF are characteristics of task, technology and individual as well as interactions between them. The theory suggests that information systems have a positive impact on performance only when there is a correspondence between their functionality and task requirements of users. (Goodhue & Thompson 1995).

Compatibility is one of the characteristics of innovations, which is also noted in the theory of Diffusion of Innovations (Rogers 2003). It is one of the attributes of innovation which explains different rates of innovation adoption and is defined as a degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters (Rogers 2003, 15). The author delineates compatibility with sociocultural values and beliefs, previously introduced ideas and the client needs for innovation, where latter refers to the degree to which innovation meets a felt need. In order to determine such needs interpersonal probing and surveys are utilized. Notably, potential

adopter might not recognize the need for innovation until they become familiar with the idea or its consequences. When there is high degree to which an innovation is perceived as meeting the client needs a faster rate of adoption usually takes place. (Rogers 2003, 246).

In the support of the theories discussed above, review of information system literature showed that match of technology functionalities with the requirements of organizational tasks has received attention of academics also regarding the purchase process specifically (Gebauer et al. 2010, Gebauer & Scharl 1999, Kim & Shunk 2004, Cano et al. 2005, Subramaniam & Shaw 2002). Factors affecting technology adoption in business transactions is a concern which has been addressed by academic research (Osmonbekov et al. 2002; Osmonbekov 2010; Sila 2013, Al-Bakri & Katsiolouides, 2015, Asare et al. 2016). Among others, nature of relationships and interactions between selling and buying organization is identified as important factor of adoption (Osmonbekov 2010; Asare et al. 2010). In order to measure the extent to which e-business tools fit into the existing pattern of buyer-seller interactions Osmonbekov (2010) developed concept of relationship-technology fit defined as the extent to which the e-business tools are consistent with the current interactions between the organizations. The results suggested that a match between a relationship and technology may be an important consideration in the e-business adoption. This is also consistent with the notion of Grewal et al. (2015, 196-197) that various modes of B2B buying are amenable to routinization and automation to different degree.

Organizational buying

Organizational buying behavior is characterized with certain specifics compared to consumer buying. Organizational buying entails satisfying derived demand, buying decision is rarely made independently of the influence of other stakeholders, purchase process often takes substantial time and go through different phases, and that the offering itself can be complex and encompass service constituent (Webster & Wind, 1972; Grewal et al. 2015). Robinson et al. (1967) suggested so-called Buygrid framework which depicts buying process as a comprehensive series of eight decision-making stages in a view of a particular buying situation (new task, modified rebuy, straight rebuy). This model has been widely referred to and utilized in the academic literature (Webster & Wind, 1972; Hutt & Speh 1992; Tullous & Utecht 1994; Cano et al. 2005).

Valuable insight into the nature of buying situations gives taxonomy of buying decision approaches developed by Bunn (1993). The author utilizes purchasing concepts that are recurring across a wide variety of buying situations: search for information, use of analysis techniques, focus on proactive issues, and reliance on control mechanisms as categories of buying activities. The study identifies and describe six distinctive buying approaches characterized with specific combination of degree to which each buying activity is involved in the decision process, and the circumstances under which buyers rely on a mix of activities. This taxonomy significantly supplements the conceptual schemes concerning the vendor and product choice, thereby extending the Buygrid framework and also gives practitioners a basis for comprehension of buying decisions made within a firm as well as ground for segmentation of their customer base.

In a view of modern B2B buying, a relevance of the revision of Buygrid framework has also been discussed by Grewal et al. (2015). The authors propose a possible alternative in a form of framework of three B2B buying modes reflecting the nature of the buying relationships: Routinized exchange relationships, Transactional buying operations and Organic buying relationships. The modes differ in the interorganizational relationships, the locus and nature of the buying decision, their implementation and other purchase-related factors. Interestingly, that the outlined types of relationships are amenable to routinization and automation to different extent. The modes of B2B buying represent a very recent conceptualization of inter-firm relationships and authors themselves rise a question of when and where these modes can be found (Grewal et al. 2015, 198). However, no other studies utilizing this framework were found in the extant literature.

Technology in B2B transactions

Technology influence on the nature of the organizational buying has been acknowledged decades ago (Webster & Wind, 1972, 17) and remains relevant area for exploration (Grewal et al. 2015). Grewal et al. (2015) summarizes that evolution of digital technologies has significant impact on B2B buying as novel technologies enable new ways of information sharing, collaboration, data access, storage and manipulating, therefore, on how the buying process is carried out. Osmonbekov (2010, 217), implying e-business tools, notes that information exchange between organizations may be becoming more sophisticated than e-

mail and less expensive than traditional Electronic Data Interchange systems. Effective information communication is also emphasized by researchers as a key determinant of relationship outcomes and customers' positive experiences in B2B context (Agnihotri et al. 2016, 172; Murphy & Sashi 2018, 2). The literature supports the use of technology tools enhancing the information communication process in sales (Agnihotri et al. 2016, 173). Buyer satisfaction with technology-mediated communication from suppliers has been found to significantly positively affect future purchase intentions and impact trust and commitment (MacDonald & Smith, 2004, 113). In order to gain an understanding of the activities that provide strong potential for support through digital and network technologies, it is suggested to examine the information being exchanged at each B2B transaction stage (Nissen 1997 cited in Gebauer & Scharl 1999).

It is relevant to note that the model of Goodhue & Thompson (1995, 216) also includes individual characteristics as a third antecedent of TTF. Similarly, models, developed specifically for the explanation of inter-firm technology adoption, encompass organizational characteristics as factors affecting the acceptance of such technologies (Grover 1993; Premkumar & Ramamurthy 1995; Russell & Hoag 2004). Asare et al. (2015) synthesized the factors of inter-organizational technology adoption and emphasized such organizational characteristics as management support, centralization, organizational size and IT readiness.

Management support (formal and informal) is positively associated with an intention to adopt B2B technologies (Grover 1993, Premkumar & Ramamurthy 1995, Asare et al. 2015). Centralization refers to the degree to which control over the decision-making is held by a few powerful members of the organization (Russell & Hoag 2004, 107). Academic research demonstrates that innovative technologies are more likely to be adopted within decentralized structures where lower-level managers, who possesses greater knowledge about business processes, are empowered to make important decisions (Asare et al. 2015, 6). Even though it is recognized that large organizations are less flexible and their ability to adapt quickly is limited, numerous investigations supported the positive relationship between size and organizational innovativeness. (Asare et al. 2015, 6). Last, but not least, organizational IT readiness is a factor influencing inter-firm technology adoption. It is characterized by the level of sophistication of organizational IT management, information systems infrastructure

and expertise (Asare et al. 2015, 6). To sum up, organizational environment, its culture and structure can either limit or motivate such B2B technology adoption.

1.3 Research questions

The reviewed theories of technology adoption suggest that match of technology characteristics with the tasks and needs of potential adopters positively affected that rate of adoption (Goodhue & Thompson 1995, Rogers 2003). Empirical research also supports the connection between inter-firm relationships and the nature of established interactions between organizations and adoption of technology tools regarding the purchase process (Osmonbekov 2010; Asare et al. 2010; Grewal et al. 2015).

Review of extant literature showed that organizational buying in B2B context has received fair attention in the academic literature. Researchers has been developing, refining and revising frameworks guiding the analysis of the organizational buying (Robinson 1967; Webster & Wind 1972; Bunn 1993; Grewal 2015). Nevertheless, B2B buying as well as technology adoption in B2B context still represent fruitful area for further investigations, especially under circumstances of rapid technology development (Wiersema 2013, Grewal et al 2015).

Literature review also showed that there is limited amount of empirical research illustrating B2B buying process and buying participants for the specific buying situation in a particular industry case. Some notable exceptions are works of Verville & Halington (2003), Mottaghian (2004), Makhitha (2015) and Garrido-Samaniego et al. (2010). An amount of papers discussing current role of e-business tools in the purchase process in the specific industry context is scant and no works connect to its potential role in the view of the settled nature of buyer-seller relationships.

The research questions and conceptual framework of this work is based on the notion that the nature of relationships between organizations influences the degree to which buying operations can be automated (Grewal et al. 2015, 197-198). It also affects adoption of e-business tools in B2B buying since they should be consistent with the current interactions between the organizations (Osmonbekov 2010, 218).

The goal of this research is to explore the organizational buying process with the purpose to get insight into what activities provide potential for support through suppliers' e-business tools. The industry case for the study is the purchase of equipment and apparel by ice-hockey clubs.

RQ: How the organizational buying can be supported by the supplier's e-business tools?

The context: ice-hockey apparel and equipment purchase by sport clubs.

RQ1: How the process of buying is carried out?

RQ2: What are participants of the purchase process?

RQ3: How the buying decision is approached?

RQ4: What is the nature of buyer-supplier relationships?

RQ5: What information technology is currently utilized in the process of buying?

The work will contribute to the literature on the organizational buying by applying a combination of the general models to comprehensively describe buying process in a specific industry. It will add to the existing empirical studies describing the buying center and illustrating its dynamics throughout the purchase process. It will also apply recently proposed framework (Grewal et al. 2015) which application has not been found in extant literature.

The work will represent a particular interest for managers of selling organizations in the chosen field. The study will provide knowledge about customers' buying behavior and will suggest directions for marketing initiatives aiming at customers' acquisition and increase in their loyalty. Additionally, the work will provide insights into the rivalry in the ice-hockey equipment and apparel market. Finally, supported by the literature on e-business the study will identify what tools are suitable to the existing nature of buyer-seller interactions and will provide starting point for further design and integration of intra-organizational technology.

1.4 Conceptual framework and key definitions

The conceptual framework of the study is presented on the Figure 1. It depicts the constituents which guide the present research in the chosen context. The framework is developed based on such research streams as organizational buying and technology adoption in B2B context.

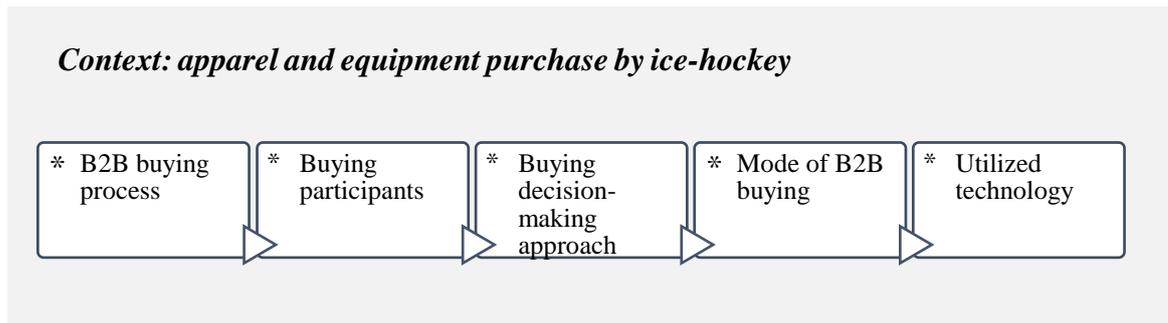


Figure 1. Conceptual framework of the study

The *organizational buying process* is a form of problem-solving and a decision-making process carried out by individuals, in interaction with other people in the context of formal organization. A concept of *buying center* refers to a subset of organizational actors who are involved in that process, they are motivated by a complex interaction of individual and organizational goals. (Webster & Wind 1972, 13-14). Special emphasis in the work is made on the understanding of how organizational buying is carried out. For this purpose, the process and participants are explored.

In this study *buying decision approach* is defined as a pattern of buying decision-making with which buying organization carries out a supplier's selection. Based on the taxonomy of Bunn (1993) this study aims to identify the buying decision approach to the supplier choice.

The concept of *mode of B2B buying*, coined by Grewal et al. (2015), is a characteristic reflecting the nature of the buyer-seller relationships that vary in the locus and nature of the buying decision and their implementation. This study makes an attempt to apply the novel framework of three B2B buying modes proposed by Grewal et al. (2015) and examines to what extent the chosen industry case can be viewed as one of the suggested modes.

Finally, the study discovers what is the current state of technology utilization in the buying process and, supported by the theory of TTF (Goodhue & Thompson 1995) and related literature from the area of information systems, discusses what technology can provide match with the purchase task taking into consideration of buying characteristics discovered at the earlier stages.

Due to the continual stream of academic and non-academic literature on such topics as e-commerce, e-business, digital technologies, there is no clarity and consensus regarding the definitions and authors usually define technology-related concepts for the purpose of specific study (Osmonbekov et al. 2002, Wu et al. 2003, Kim & Shunk 2004). Suggested by Wu et al. (2003, 425), in this work *e-business* is defined as the use of Internet technologies to link customers, suppliers, business partners, and employees. Following the logic of Osmonbekov et al. (2002), this study delineates informative and transactional nature of e-business and narrows the examination of the literature as follows:

- informative tools (facilitate communication, allows access and share of purchase-relevant information): web-based information (product information, catalogs, reviews, online transactions database) and electronic document/message exchange systems.
- transactional e-business tools (supporting the immediate actions to acquire and receive goods): e-commerce websites that offer sale transactions.

1.5 Delimitations

Empirical part of this study is the investigation of organizational buying. The discussion of how e-business tools can potentially fit the established buyer-seller interactions is supported by the extant literature on information systems, e-commerce and associated topics. Possible empirical investigations of the technological solutions are beyond the scope of this study. It should also be noted, that there is a great variety of technology tools supporting the purchase processes within organizations (Kim & Shunk 2004). In order to streamline this study, the examination is limited to the e-business tools mentioned in previous section, as they are likely to be currently under development by sellers in the chosen industry context (Intersport 2019, Stadium 2019).

The unit of analysis in this work is buying organization. In order to make desired inferences about organizational buying, the study explores the process from the viewpoint of an organizational buyer. The scope of this study does not encompass experiences of a selling organization.

Informants for the research are one person from each case organization, who is closely involved in the purchase process and decision-making. Due to the limitation of the resources for this research, it did not include triangulation among complementary data collection methods. The organizational buying usually involves several participants whose involvement and role vary, thus higher validity would have been achieved by interviewing several participants and observation. Thus, the research validity is limited to experiences, perceptions and knowledge of one person in coordinative position.

The primary focus of the discussion concerning the utilization of e-business tools is the enhancement of the communication and transactions under the existing pattern of the purchase process. The discussion of the fit between buying and e-business tools will omit potential redesign of the purchase process and changes in the buying participants.

1.6 Research Methodology

This work adopts an inductive research approach with focus on rather small sample and production of qualitative data. Inductive approach was chosen also since the emphasis of the research is on the new context where extant literature is scant. The goal of the present study is to create in-depth illustration of B2B buying, explore the current use of e-business tools in the purchase process and, based on the existing literature on technology utilization in B2B transactions, suggest what e-business tools are appropriate for the chosen real-life context. Therefore, it is appropriate to generate data, analyze and reflect the themes that data is suggesting. Inductive approach also permits more flexible structure and allows changes of research emphasis in the course of the work, what is important under limited access to data and a lack of previous knowledge of the subject (Saunders et al. 2009, 126-127).

Multiple case study was chosen as a research strategy. The qualitative case study is a strong strategy for research investigating phenomenon in depth within its real-world context. Case

study is appropriate for the research questions taking form of “how” and “why”, requires no control of a researcher over the relevant behaviors and focuses on contemporary events. It also takes advantage of the prior theoretical propositions which assist data collection and analysis (Yin 2014, 9-17). This work relies on multiple case strategy rather than a single case since the research questions imply the need to check up if the findings of one case correspond to other cases and generalize them.

The unit of analysis is buying organization (ice-hockey sport club). This work is based on the investigation of multiple cases of acquisition of ice-hockey apparel and equipment by sport-clubs. Key informant are individual participants involved in and possessing knowledge about the purchase process within the ice hockey club (one for each case).

1.7 Structure of the study

Structure of the study is summarized on the Table 1. Chapter 1 represents a foundation for the study, it encompasses context and preliminary literature review, which suggests questions for the research, and assists in the composition of conceptual framework for the study. It also introduces key concepts, delimitations and discusses the chosen research methodology. Theoretical part (Chapters 2-3) reviews the characteristics of task and technology as antecedents of technology adoption in an organizational context (Goodhue & Thompson 1995). It includes extended review of the extant literature on organizational buying and overview of e-business technology in B2B buying. This part provides theoretical orientation which guided the case study implementation and analysis. Empirical part (Chapters 4-7) present research design, implementation, its findings and is concluded with the inferences, answers to the research questions, connection to the theory, managerial implications and directions for further research.

Background	Preliminary literature review	Framework of the study	Task characteristics	Technology characteristics	Research methodology	Results	Discussion and Conclusions
Background overview: Technology in B2B buying	Technology adoption → Organizational buying → Technology in B2B → transactions	Research questions ↓ Conceptual framework ↓ ➤ Key concepts ➤ Delimitations ➤ Research methodology selection	Organizational buying	E-business in B2B buying	Multiple case study design and implementation	Empirical findings, synthesis of collected data	Interpretation of findings and linking to the theory Output of the work: Managerial and theoretical contributions, further research
Introduction Chapter 1			Theory Chapter 2-3		Empirical part Chapter 4-7		

Table 1. Structure of the study

2 ORGANIZATIONAL BUYING

Goodhue & Thompson (1995, 216) broadly define tasks as actions carried out by individuals in turning inputs into outputs. Li & Belkin (2009, 275) defined work task as an activity people perform to fulfill their responsibility for their work. Academics utilize various classification schemes in order to conceptualize tasks for the research purposes in the area of organizational management, social psychology, and information science (Li & Belkin 2008). Since characteristics of tasks have implications for the technology adoption (Goodhue & Thompson 1995), this work characterizes organizational buying in the chosen context according to such common dimensions as interdependence and non-routineness (Goodhue & Thompson 1995; Li & Belkin 2008; Gebauer et al. 2010).

This section reviews the stage models for analyzing organizational buying process, discusses the concept of buying center and buying decision approaches which reflect the extent of interdependence and non-routineness of the buying task respectively. This section also presents the modes of B2B buying, proposed by Grewal et al. (2015), in that way provides an extended framework for the empirical investigation within this study.

2.1 Buying process

Organizational buying behavior differs from consumer buying due to several factors. Organizational buying occurs in the context of formal organization, it usually involves many people, multiple goals, sometimes conflicting decision criteria, purchase process often takes substantial time and go through different phases (Webster & Wind, 1972; Grewal et al. 2015). According to Webster & Wind (1972, 13-14) organizational buying starts when someone in the organization perceives a problem that can be solved through some buying action and represents a problem-solving and a decision-making process.

2.1.1 Classic Buygrid framework

Academic literature widely utilizes the eight-stage model describing the organizational buying process suggested by Robinson et al. (1967) (Hutt & Speh 1992; Tullous & Utecht

1994; Cano et al. 2005). Based on field research, Robinson et al. (1967) divided the purchase process into eight sequential, distinct and interrelated phases:

1. Anticipation or recognition of a problem (need) and a general solution
2. Determination of the product type needed
3. Description of characteristics and quantity of needed item
4. Search for qualified suppliers
5. Acquisition and analysis of proposals
6. Evaluation of proposals and selection of suppliers
7. Selection of an order routine
8. Performance feedback and evaluation

These stages represent a classic view on the organizational buying. Although a general pattern exists, the stream of the delineated stages may not progress sequentially, decision makers iterate among the stages, the steps may vary with the complexity of the buying situation, not necessary every phase is carried out during the decision process. Moreover, the same product may evoke different buying patterns in organizations with diverse levels of experience and information. (Hutt & Speh 1992, 71; Bunn 1993, 42; Osmonbekov et al. 2002, 152).

In order to concentrate attention on different complexity levels of organization buying, the complete model of Robinson et al. (1967) (Figure 2) encompasses several classes of buying situations (buyclass) and details well the complexities of buying decision processes. The classification of buying situations will be discussed in more details in chapter 2.3.

Buying stages	Buying situation		
	New task	Modified Rebuy	Straight Rebuy
Anticipation or recognition of a problem (need) and a general solution			
Determination of the product type needed			
Description of characteristics and quantity of needed item			
Search for qualified suppliers			
Acquisition and analysis of proposals			
Evaluation of proposals and selection of suppliers			
Selection of an order routine			
Performance feedback and evaluation			

Figure 2. The Buygrid Framework for Industrial Buying Situations

Recently there have been rapid increase in production of customized products, from capital goods like equipment and information systems acquired by organizational buyers to consumer goods like golf clubs, architectural services and sneakers (Terwiesch & Loch, 2004; Moser and Piller, 2006). In the context of procurement of customized products, organizational buying process has certain specifics. Usually, the time and resources required for the purchase are significantly higher than those of standard products due to extended efforts in supplier selection, development of specifications, and price negotiation (Bajari et al. 2009 cited in Chen & Tseng 2010). Product customization necessitates considerable interactions between seller and buyer aiming at matching the seller's technologies capabilities with the buyer's needs (Athaide & Stump, 1999). Design activity, which is usually included in the production of customized goods, requires collaboration in the form of need information and solution information exchange (Chen & Tseng 2010, 204). In cases when customer is not able to accurately specify product requirements, the process includes efforts in elicitation of customer needs (Zipkin 2001, 82). Organizational buying of customized products may involve such specific sub-stages as new product development, initial design work and collaborating prototyping (Stump et al. 2002, Terwiesch & Loch 2004).

2.1.2 Buying process in various contexts

Review of the extant literature shows that few works investigated organizational purchase process in the context of a particular product type or industry. Several notable exceptions are works of Verville & Halington (2003), Mottaghian (2004) and Makhitha (2015).

The study of Verville & Halington (2003) identifies six distinctive, yet interrelated processes in the acquisition of the Enterprise Resource Planning (ERP) software and proposed a corresponding model consisting of planning, information search, selection, evaluation, choice, and negotiations. The model emphasizes that the process is nonlinear, some processes are done concurrently, some of the processes are embedded, most of processes are iterative and recursive, and each process is causal and results in deliverables used by another process.

Mottaghian (2004) describes the buying process of professional industrial services in four organizations by using the combination of models of industrial buying process for services proposed by Grönroos (1979) and Stock & Zinszer (1987). The models resemble the framework of Robinson et al. (1967), however their initial phase contains such components as “Make or buy decision” and “Identification of possible consultant”, which evidences about the specifics of the service purchase. The investigation of four cases by Mottaghian (2004) showed that the stages, specified in the theory, do not necessary progress sequentially and some stages are bypassed.

The buying behavior of craft retailers in South Africa is investigated by Makhitha (2015). The author compares different stage models of organizational buying and create a comprehensive framework of retailers’ buying. The study discovers that the majority of craft retailers go through an extended buying process which contains such industry-specific phases as derived demand estimation for a particular item, estimation of reasonable stock size and trial orders.

2.1.3 Buying processes model of this study

Considering buyer-seller interaction in the context of computer-mediated environment, it is appropriate to view the organizational buying as a course of business transaction involving information processing and communication. Business transactions are processes to exchange goods and services for some form of compensation which consists of a number of sub-processes Gebauer & Scharl (1999). In order to look at how B2B buying can be supported by Internet-based information systems, academics have utilized a four-phase model of business transaction presented on the Figure 3; which can be well-suited to describe the transaction processes between the buyers and suppliers of e-marketplaces (Kim & Shunk 2004; Gebauer & Scharl 1999).



Figure 3. Transaction process model (Gebauer & Scharl 1999).

The *information phase* is characterized with the knowledge creation when buyer is not yet focused on the specific transaction partner. Information is the dominant object of exchange between buyer and seller. Sources of information are detected, offerings from prospective suppliers are obtained and additional transaction-specific information is acquired. At the *negotiation phase* the prospective buyers and sellers work out the terms of a deal, identify possible solutions aiming at the reaching a mutually satisfactory agreement. Negotiation phase is relatively unstructured and may vary from being non-existent or basic to complicated arrangements. Interaction is a core of this phase and the primary object of exchange is influence. At the *settlement phase* the objects of the transaction are exchanged according to the agreed conditions, normally represents a structured process and includes certain form of mutual performance control. Settlement phase finished when items are received, and payment initiated. *After-sales phase* refers to the storage of the transaction data for the purpose of the support provision, supplier performance assessment or internal buying pattern analysis. In addition to the purchase data, product-related documentation is also significant in case of unexpected irregularities. The exchange between buyer and seller

consist of information and the focus is on capturing, storing and managing data. (Gebauer & Scharl 1999).

For the purpose of this study, stages of the Buygrid model of organizational buying (Robinson et al. 1967) and B2B transaction model (Gebauer & Scharl, 1999) are grouped, aligned and broadly combined in three phases as depicted in Table 2. The phases from need recognition to the supplier selection correspond to the information and negotiation stage of a B2B transaction. They are combined and named as *pre-trade*, implying that activities during this phase are focused on the information gathering and exchange necessary for the decision on the supplier selection. Stage of *ordering and settlement* conforms to selection of an order routine/settlement, however, implies that ordering activity may include further purchase-specific information exchange between seller and buyer when supplier is selected. *Post-trade* phase of a buying process in this study refers to performance evaluation as well as storage of purchase data.

<i>Eight-stage model of an organizational buying process (Robinson et al. 1967)</i>	<i>B2B transaction process (Gebauer & Scharl, 1999)</i>	<i>Buying process model applied in this study</i>
Need recognition	Information	Pre-trade
Product type determination		
Establishing specifications		
Search for alternatives		
Acquisition and analysis of proposals	Negotiation	
Evaluation of proposals and selection of suppliers		
Selection of an order routine	Settlement	Ordering and Settlement
Performance feedback and evaluation	After-sales	Post-trade

Table 2. Stage model of a buying process in this study

The delineated pre-trade, ordering and settlement, and post-trade stages provide a framework for the empirical research within this study.

2.2 Buying participants

Gebauer et al. (2010, 262) relate *task interdependence* to the degree to which a task is related to other tasks and organizational units, and, thus, requires coordination. Tushman (1978)

(cited in Li & Belkin 2008) defines interdependence as “the extent to which the project’s task requires working with other areas” suggesting that interdependence implies the necessity of coordination, joint decision making, and problem solving in order to complete the project tasks. Under conditions of no interdependence, a task can be executed entirely by one person, for example, telemarketing, whereas highly interdependent task, such as development of an advertising campaign requires extensive interaction among group members to generate the collective output (Wageman & Gordon 2005, 687).

2.2.1 Concept of buying center

Buying center is an important concept within an organizational buying which reflects its interdependency. It includes all members of the organization who are involved in that process and motivated by a complex interaction of individual and organizational goals (Webster & Wind 1972, 14). Buying center represents an informal decision unit the objective of which is the acquisition, acknowledgement, and processing of relevant purchase-related information (Spekman & Stern, 1979, 56). Hutt & Speh (1992, 66) also discuss that members of the buying center share the goals and risks arising from the buying decision. Webster & Wind (1972, 17) describe five roles in the buying center:

- users – members of the organization who use the purchased products and services
- buyers – members with formal responsibility and authority for contracting with suppliers
- influencers - member who directly or indirectly influencing the decision process through information or evaluating criteria
- deciders – members who has the authority to choose among alternative buying actions
- gatekeepers – members controlling the flow of information into the buying center

Like the phases in the organizational buying model, the above described roles represent a general pattern. The needs of a particular buying situation determine the structure of the buying center and its composition may vary (Hutt & Speh 1992, 66). The degree to which the members are actively involved can vary from a routine situation where one individual takes into consideration the preferences of the other members to complex situations in which the final purchase is truly a group decision (Spekman & Stern, 1979, 54). A buying group

can undergo modifications during the organizational buying process in response to the information requirements and different individuals are important to the process at its different stages (Lilien & Wong, 1984, 2).

Referring to the buying center concept, Grewal et al. (2015, 195) note that identification of the constellation of *buying participants* beyond the buyer's personnel may give valuable insights. The authors explain that the buying process may involve individuals and organizations external to the buyer (for example, current and prospective suppliers, regulators); and the parties who confirm the purchase decision and define parameters for buying arrangements often differ from those who implement the buying activities.

2.2.2 Buying center in various contexts

Researches do not define what degree of involvement is necessary for inclusion in the buying center and its boundaries remain ambiguous. However, there have been an attempt to identify the positions most centrally involved in buying center activities. The research indicated that respondents (usually purchasing agents) are able to accurately identify who is involved in buying decisions, nevertheless, are less able to indicate the difference in the influence within the buying group. Such, organizational functions of purchasing, production, and engineering are often represented in the buying center. (McWilliams et al. 1992, 44). The review of most recent empirical studies shows that the composition of a buying center varies and usually represent case-specific characteristic, several examples are discussed next.

Empirical research among producers of high-technology products, technical instruments, computer-related products, and other advanced electronics showed that both purchase situation and purchase phases relate to the buying center size (McWilliams et al. 1992). A minor evidence indicated that more individuals participate in the buying center in a new-buy situation. According to the results, the buying group included less participants during the supplier selection, compared to need identification, and were relatively larger during the establishment of specifications, identification and evaluation of alternatives.

Lau et al. (1999) explore the structure of the buying center specific to Southeast Asia and draw conclusions which have significant implications for the communications between

marketers and buyers, accessibility to management, organizational controls, and personnel composition of the buying center. First, the study identified that the buying center becomes more complex with either increasing purchase importance or time pressure. Second, for making novel purchases a less formalized buying center structure (concerning fewer rules, regulations, and procedures) is needed. Third, under increased time pressure there are fewer members making purchasing decisions. These members rely on a centralized instructions and directions.

Lewin & Donthu (2005) performed a meta-analysis of organizational buying behavior research, which provides a support for buyclass as a predictor of buying center size. However, the authors emphasize that buyclass alone is not sufficient for understanding varieties in buying center structure and note that purchase importance, and to a lesser extent purchase uncertainty and complexity, represent equally compelling explanatory variables.

In the study of the buying process for Enterprise Resource Planning software Verville & Halington (2003, 591-592) describe the acquisition team formation as a phase within the planning process. The acquisition team included project leader and cross-functional team members, whose roles were identified and defined at that stage. The roles included functional or advisory tasks based on the abilities and experiences of each team member. Team members were drawn from the various departments that were to be impacted by the software and included, for example, users, IT staff, representative from the purchasing department. The consideration was given to the long-term availability of individuals and their “crossover” involvement. It was also assessed if external experts or consultants were needed to supplement the acquisition team, what is consistent with the stage model of Stock & Zinszer (1987) concerning identification of possible consultant. The role of each individual team member in the processes within the purchase are not explicitly discussed in this work, however, the authors indicate that final choice of were authorized by a steering committee or board of directors, a group external to the acquisition team, which were presented with a final recommendations.

Examining the purchase process of professional industrial services, Mottaghian (2004) indicates the changes in the buying center structure throughout the buying stages. The cases within that study indicate that among others such personnel as vice president, factory

manager, purchasing manager and secretary, technical manager, engineer, manager of external costs might be involved in the buying group, however, their participation varies among cases. Relating to the technology, Mottaghian (2004, 81) proposes that the role of different actors in the buying center is influenced by the Internet. Author explains that the role of the gatekeeper and influencer might become less important since the access and gathering of the information is simplified.

The impact on buying center of e-commerce technology utilization in organization's purchasing of capital goods procurement were assessed by Garrido-Samaniego et al. (2010). The work focused on the usage of such tools as intranet, extranet, website visits, e-mails, forums and videoconferences as they proved to be the most widely used among purchasing managers. Applying five-stage model (consisting of need recognition, determination of specifications, search for suppliers, assessment of alternatives and purchase), the researchers discovered that the number and qualitative nature of functional areas involved in the e-procurement process does not remain constant throughout the phases of the process. The results showed that during the need recognition, determination of specifications and assessment of alternatives are characterized with relatively high involvement, whereas lowest involvement is during the purchase phase. Authors discuss that lower involvement during the search for suppliers and purchase entails activities which are straightforward and less open to discussion and, by contrast, other stages are multifunctional in nature. It was revealed that the involvement of marketing is extremely low, and it does not vary significantly during the e-procurement process. Regarding other functional areas, engineering is involved at all stages except the purchase, production is present and important during need recognition, determination of specifications and assessment of alternatives, whereas purchasing department plays an active role throughout the whole process, except need recognition where it drops slightly. Finally, the participation of management remains constant, except the supplier search. The authors also concluded that the use of Internet at each phase of the purchasing process leads to an increase in the number of functional areas involved in the purchase and explain that this might reflect the possibilities for coordination afforded by the Internet, which previously were unavailable in more conventional means. (Garrido-Samaniego et al. 2010).

The academic literature emphasizes the importance of understanding of the buying center structure and dynamics by selling firm for developing marketing strategies (McWilliams et al. 1992, Lau et al. 1999, Hutt & Speh 2008, 50). From the viewpoint of the relationship marketing, it is suggested that there is certain interdependence between the approach to the relationships and buying center size. Transactional approach relates to smaller buying center. A transactional approach implies that industrial sellers and buyers focus primarily on completing a transaction. Otherwise, a relationship approach implies that parties are concerned with long-term cooperation for mutual benefit to both firms and this case implies larger buying center size and development of a wide range of interorganizational linkages. (McWilliams et al. 1992, 49).

2.3 Buying decision approach

Non-routineness reflects variety and difficulty of the task and can be broadly viewed as a level of structuredness, analyzability, difficulty, and predictability of a task. Academic literature indicates that the degree of routineness is evident in repetitiveness, novelty, the ease with which the decision-making can be programmed or requires adaptive, problem-oriented action. Procurement of standard items and strategic planning are examples of tasks of low and high non-routineness respectively. (Gebauer et al. 2010, 260-261). Variety of buying situations reflects the degree of non-routineness of organizational buying and is discussed in this chapter.

2.3.1 Classic view on buying situations

The described earlier eight-stage model represents a classic view on the organizational buying. Although a general pattern exists, different buying patterns in organizations with diverse levels of experience and information has been noted by researchers (Hutt & Speh 1992, 71; Bunn 1993, 42; Osmonbekov et al. 2002, 152). In order to concentrate attention on different complexity levels of organizational buying, academics utilize various classifications of buying situations.

Buygrid framework view delineates three basic types of so-called, buyclasses: new task, straight rebuy and modified rebuy (Robinson et al. 1967). The following overview of the

types of the buying situation is drawn from the discussion presented by Hutt & Speh (1992, 71-74):

- *new task* – a situation when a need is perceived as highly different from previous experiences, significant amount of information is required to investigate alternative solutions. In this case no well-defined criteria and ways for problem-solving exist for the buying influential and they lack strong predispositions toward a particular solution;
- *straight rebuy* – is concerned with a continuing or recurring requirement, a situation when buyers have substantial experience in dealing with the need, little or no new information is required, and evaluation of new alternatives is unnecessary and unlikely to result in appreciable improvements. Usually, organizational buyers have well-defined choice criteria and pre-dispositions towards one or few screened suppliers which guide the purchase process;
- *modified rebuy* – a buying situation when decision-makers have experience in satisfying the continuing or recurring requirement, however they seek for additional information and consider alternative solutions, for example, with the purpose to achieve quality improvement or cost reductions. This situation is likely to take place when there is dissatisfaction with the performance of the present supplier.

Robinson et al. (1967) explain that each buying situation requires a unique business marketing effort. Lewin & Donthu (2005) showed that buyclass, along with the purchase importance, uncertainty and complexity represents a compelling explanatory variable for buying center size. Interestingly that the literature indicates that clear distinction between straight and modified rebuy is challenging to find in practice (Moon & Tikoo 2002, 297).

Such classification presented above provides a basic understanding of different buying situations arising within organizations and when related to the eight-stage model it details well the complexities of buying decision processes. It is also utilized in empirical studies on organizational buying (McWilliams et al. 1992). However, the buyclasses are characterized with the conceptual approach and gave impetus to the development and extension of the classification (Bunn 1993, 39).

2.3.2 Extended taxonomy of buying decisions

An empirical taxonomy of buying decision approaches, developed by Bunn (1993) is based on the purchasing concepts and techniques which are recurring across buying situations. Bunn (1993, 38) defines buying decision approach as a pattern of decision making, problem-solving shortcut associated with a buying situation. The study identified four buying activities and four situational characteristics, a mix of which characterizes six different buying decision approaches. The taxonomy delineates such buying approaches as casual, routine low priority, simple modified rebuy, judgmental new task, complex modified rebuy, and strategic new task. Search for information, use of analysis techniques, focus on proactive issues, and reliance on control mechanisms are utilized as categories of buying activities, and purchase importance, task uncertainty, extensiveness of choice set and buyer power represent a mix of internal and external characteristics under which a mix of buying activities took place.

It should be noted that even it seems that buying activities have some ordering, the author of the taxonomy revealed significant variations and proposed that no ordering should be implied, and activities should be seen as distinct (Bunn 1993, 43). Table 3 and 4 present the description of the variables and the identified approaches respectively.

Variable	Description
Buying activities	
Search for information	The buyer's effort at scanning the internal and external business environment to identify and monitor information sources relevant to the focal buying decision
Use of analysis techniques	The extent to which the buyer makes use of formal and/or quantitative tools to objectively evaluate aspects of the buying decision
Proactive focusing	The extent to which decision making related to the focal purchase is prospective and thus considers the strategic objectives and long-range needs of the firm
Procedural control	The extent to which the evaluation of a buying decision is guided by established policies, procedures, or transaction precedents
Situational characteristics	
Purchase Importance	The buyer's perception of the significance of the buying decision in terms of the size of the purchase and/or potential impact of the purchase on the functioning of the firm
Task Uncertainty	The buyer's perceived lack of information relevant to a decision situation
Extensiveness of choice set	The buyer's perception of the breadth of alternatives available as choices in the context of a particular decision situation
Buyer power	The buyer's perception of the firm's negotiating strength in a particular buying decision situation

Table 3. Explanation of buying activities and situational characteristics (Bunn 1993).

Variables	Casual	Routine Low Priority	Simple Modified Rebuy	Judgmental New Task	Complex Modified Rebuy	Strategic New Task
Situational Characteristics						
Purchase Importance	Of minor importance	Somewhat important		Quite important	Quite important	Extremely important
Task Uncertainty	Little uncertainty	Moderately uncertain	Little uncertainty	Great amount of uncertainty	Little uncertainty	Moderately uncertain
Extensiveness of choice set	Much choice	Much choice	Narrow set of choices	Narrow set of choices	Much choice	Narrow set of choices
Buyer power	Little or no power	Moderate power	Moderate power	Moderate power	Strong power position	Strong power position
Buying Activities						
Search for information	No search made	Little effort at searching	Moderate amount of search	Moderate amount of search	High level of search	High level of search
Use of analysis techniques	No analysis performed	Moderate level of analysis	Moderate level of analysis	Moderate level of analysis	Great deal of analysis	Great deal of analysis
Proactive focus	No attention to proactive issues	Superficial consideration of proactive focus	High level of proactive focus	Moderate proactive focus	High level of proactive focus	Proactive issues dominate purchase
Procedural control	Simply transmit the order	Follow standard procedures	Follow standard procedures	Little reliance on established procedures	Follow standard procedures	Little reliance on established procedures

Table 4. Taxonomy of buying decision approaches (Bunn 1993).

In order to illustrate the findings, Bunn (1993) presents example situations of each type. Such, *Casual Purchase* is an order of several desks from a previous vendor by a real estate development firm. *Routine Low Priority* often characterizes purchase of production supply items, raw materials, or components; repeat situation when look at other sources is made to make sure there are no technological advancements and, even if competitive bidding were organized, the purchase was generally from the previous vendor. Examples are janitorial services for a local government and cable used as a component in computer manufacturing. *Simple Modified Rebuy* can be illustrated by the purchase of underground cable where electrical utility company considered market availability, and the long-term relationships with the vendor. An example of a *Judgmental New Task* is purchase of a technically complex piece of a water treatment equipment which causes much uncertainty to a firm. High volume of computer stock paper purchased by a publisher is an example of *Complex Modified Rebuy*, the decision necessitated extensive quantitative analysis of inventory control, price and cost analysis, market trends and reliability of suppliers. Finally, *Strategic New Task* is illustrated by the infrequent high-volume purchase of workstations furniture by a health insurance company which involved several departments over six-month period.

The taxonomy of Bunn (1993) significantly extends and enriches the knowledge of diversity of buying situations and underlying factors through the empirical investigation. In the revised edition of their book Hutt & Speh (2008, 37) include updated classification of buying situations based on the work of Bunn. For managerial use, it is suggested that taxonomy can serve as a tool to comprehend the diverse set of a firm's buying decisions within a firm, guideline to train new buyers and a framework for market segmentation for managers (Bunn 1993, 52).

Moon & Tikoo (2002) investigated buying decision approach of purchasing managers and doctors at 150 general hospitals in Korea and discovered that the four buying activities in Bunn's taxonomic framework are useful criteria for classifying the buying decision approaches of both users and buyers. Interestingly, that results suggested that a classification scheme of three buying decision approaches might be more robust than a finer grouping of six approaches. The research emphasizes that the underlying buying activities of buyers and users are similar and that for similar buying decisions, buyers tend to search for more

information, use of analysis techniques to greater extent, and exercise greater procedural control than users. (Moon & Tikoo 2002).

2.4 Modes of B2B buying

Grewal et al. (2015) question the relevance of the Buygrid framework and the representation of an organizational buying as a sequential model. The authors suggest that modern B2B buying encompasses four ongoing processes: implementation, evaluation, reassessment and confirmation.

Implementation refers to actions undertaken to acquire goods and services directly within the parameters of the current buying decision.

Evaluation involves examining the coherence, effectiveness, and efficiency of all buying activities undertaken within the parameters of the deal.

Reassessment is analysis of the foundations on which present buying decision is based. It might involve results of evaluation of current buying activities, changes to the buyer's needs and capabilities, emerging opportunities, alternative offers.

Strategic reassessment leads to *confirmation* of the buyer's decision in a form of a renewal or minor modification of the existing buying decision or specification of a new one.

Grewal et al. (2015, 195) note that the processes are simultaneous rather than sequential. Such, data is gathered and analyzed continually in order to evaluate current buying activities. Alternative offers are examined and buyers' personnel (or authorized third parties) constantly browse the environment for opportunities.

In addition, attention is drawn to the consistency in the buying elements that establish the characteristics of the buy and emerge from the four factors: *the goods and/or services acquired, the terms of trade, the selling firm, the buying firm*. The authors explain that the buyer may want to acquire same, similar or different products than previously bought. Alike the terms of trade may be the same or vary to different degree; the buyer can interact with seller in an identical way or with a new seller through a new interface. (Grewal et al. 2015, 195-196).

Based on the discussed concepts, Grewal et al. (2015) propose three B2B buying modes reflecting the nature of the buying relationships: Routinized exchange relationships,

Transactional buying operations and Organic buying relationships, presented in Table 5. The modes differ in the interorganizational relationships, the locus and nature of the buying decision, their implementation and other purchase-related factors, which have implications for the information system which may serve such B2B exchanges.

		<i>Routinized Exchange Relationships (RERs)</i>	<i>Transactional Buying operations (TBOs)</i>	<i>Organic Buying Relationships (OBRs)</i>
<i>Buying process</i>	Decision confirmation	Strategic partner selection Setting parameters for operations	Tactical partner selection Negotiating terms	Strategic partner selection Selection of initial buyer representatives
	Implementation of activities	Minimal or no variations in buying elements	From no to extensive variations in buying elements	Extensive variations and buying elements and buyer representatives as needed
	Evaluation of activities	Usually parties differ from entity implementing buying	Evaluation occurs periodically by different party	Ongoing evaluation by buyer representatives and oversight managers
	Decision reassessment	Modification of relationships rather than replacement due to high relationship-specific assets	Determination of the criticality of focal product or specific supplier	Uncertainty of goal achievement may require pursuit of other options despite high relationship-specific assets
<i>Locus of participants</i>	Purchasing decision	Centralized: complex decisions regarding acquired resources, sources, parameters of buying procedures or automated processes	Centralized for high-volume products Local for low-volume products *auction purchases *simple bids etc.	Centralized for corporate level partnerships Local for regional partnerships *solutions co-development etc.
	Purchasing activities and implementation	Centralized: *enact activities within established parameters *monitor ongoing processes *investigate exceptions *limited number of supplier-buyer interface points	Centralized for high volume products Local for other products *direct buying *reception of resources *evaluation of cost and supplier	Multiple supplier-buyer interface points *enact solutions *fulfil contracts *co-create value etc.
<i>Buy characteristics</i>	Complexity	high	low to moderate	moderate to high
	Novelty	low	moderate	high
	Importance	high	low	moderate to high
	Uncertainty	low	low to moderate	moderate to high
	Time pressure	moderate to high	low	low to moderate
<i>Implication for technology utilization</i>		Repetitive routine interactions and standard procedures between authorized entities enable utilization of networked electronic buying systems. It is also possible that active human participation occurs during the system creation, routine maintenance and investigation of exceptions.	Tangible and intangible investments are not warranted, limited opportunities for the utilization of technology requiring integration of buyer's and seller's systems.	Is not amenable to routinization and automation, require ongoing human involvement, interpersonal contacts through numerous interfaces, and adjustments between buyer and seller.

Table 5. Modes of B2B buying (adapted from Grewal et al. 2015, 197).

Interestingly that mode of B2B buying has implication for the inter-firm technology utilization. According to Gebauer & Scharl (1999), B2B transactions include a significant amount of information processing and communication between the participants, therefore they are amenable to the deployment of information technology. However, Grewal et al. (2015, 196-198) point that various types of buying relationships are amenable to automation and routinization to different degree

Routinized Exchange Relationships are likely to evolve in situations when acquired goods are consistent and predictable. Buying activities are characterized by repetitive, routine interactions and standard procedures within parameters established in a centralized manner. Buying activities are amenable to automation and deployment of electronic buying systems, however, require various decisions concerning the parameters within which automated buying operates. This mode of relationships is expected to increasingly emerge in a wide variety of context. *Organic Buying Relationships* represent the other end of the spectrum and are characterized by continuous human involvement, interpersonal interactions, potential product co-development, customization and adjustments between buyer and seller. Buying activities within such relationships are not amenable to routinization. *Transactional Buying Operations* are characterized by ad hoc buyer-seller interactions and have shorter time horizon compared to other modes. Usually, the goods are not complex, novel and important enough to manage Organic buying relationships, transactional approach refers to agreements that do not impose obligations or expectations on buyers and sellers to conduct future business. (Grewal et al. 2015, 196-198).

This novel framework for the analysis of B2B buying may guide further research on the topic. Description of the buying modes also provide insights into the characteristics of technology which may support buying process within particular B2B relationship context. Framework of B2B buying modes, suggested by Grewal et al. (2015) is relatively new and no empirical studies utilizing this model were found. Also authors themselves question when and where these modes of B2B buying can be found and if there are other modes. The empirical investigation within this study intends to identify to what buying mode B2B relationships may be attributed in the research context and interfere the impact on the TTF. It should be noted that Grewal et al. (2015) do not explicitly describe “buy characteristics”, for example, the principle difference between complexity and uncertainty, therefore the analysis within this work will focus on “buying process” and “locus of participants”, utilizing “buy characteristics” as a guidance.

2.5 Concluding remarks of the chapter

The review of theory and empirical studies within this chapter allowed to compose an extended framework for the empirical investigation and develop so-called case study

propositions. According to Yin (2014), case study proposition is an important component of a case research design which reflects a set of research questions and reviews of the literature, it directs attention to what exactly should be examined within the scope of the study. Basic propositions of this case study are in line with research questions and reviewed literature:

- the purchase process can be described using a stage approach with certain activities occurring during each stage
- the purchase process is carried out by the buying center, the composition of which varies throughout the stages of the purchase process
- the supplier selection approach can be characterized using the taxonomy of buying decision approaches (Bunn 1993)
- the nature of buying relationships can be described using the framework of B2B buying modes (Grewal et al. 2015)
- there are certain digital technology solutions utilized throughout the purchase process

These basic theory-driven propositions will guide data collection, whereas results of extant empirical studies allow comparison of the results of this research with other contexts.

3 E-BUSINESS

Information and communication technology has become an important and essential resource in managing business processes (Lusch et al. 2010, 20). According to Gebauer & Scharl (1999), since transactions include a significant amount of information processing and communication between the participants, they are amenable to the deployment of information technology. The authors discuss that owing to global connectivity, the functionality of B2B transaction systems has widened; and their range reaches from simple online catalogs to complex applications for managing all aspects of procurement and selling processes, and for providing deep integration with other business functions (Gebauer & Scharl 1999).

In this study e-business refers the use of Internet technologies to link customers, suppliers, business partners, and employees and this work narrows the discussion of e-business technologies to certain informative and transactional tools as noted in Chapter 1.4. Particular focus is done of the solutions which can be utilized by the seller in order to streamline the information exchange with a buyer and sales transactions. Starting with a synopsis regarding e-business tools' use in the purchasing, this chapter includes an overview of the functionalities which can be utilized in B2B buying. The examination of the tools is not intended to be exhaustive and aims at the general understanding of their match to the activities within the organizational purchase process.

3.1 Use of e-business tools

Empirical research of Leek et al. (2003) among UK businesses revealed that supplier perceive e-business technology as useful to greater extent than buyers and that buyer's adoption of new technology is quite low compared to suppliers. However, the research showed that buyers are quite innovative in using Internet to seek out foreign suppliers and readily use e-business tools to source from abroad. The author discusses that even though Internet is utilized to certain degree, its capabilities are not fully realized and supposed that with the rapid development of internet technology there would be decrease in face-to-face contacts between organizations.

The study of Samaniego et al. (2010) showed that numerous organizations merge off-line and on-line procurement processes and certain factors determine the use of e-business in the purchase process. Novelty of the purchase and lack of experience results in greater use of Internet. Higher complexity of a purchase situation leads to an extensive use of e-business tools for information gathering. Particularly complexity has a significant impact on the use of extranet during need recognition, supplier search and evaluation of alternatives. Similarly, under high perceived risk, time pressure and personal stake associated with the purchase, internet is utilized as a source of information and for internal and external communication. High personal stake especially influences the use of extranet during need recognition and technical specification. The lack of experience results in in the use of extranet for information search during need recognition, evaluation of alternatives and purchase. (Samaniego et al. 2010).

3.2 Information-oriented

Pre-trade stage

Gebauer & Scharl (1999) suggest that the business processes during the phase of a transaction where focus is on the information exchange are characterized by medium structurability where uncertainty may occur due to heterogeneous products, organizational conditions and situational factors. The authors summarize the requirements to the information system during information search among which are: fast access to a broad range of information, search functionality, easy to operate user interfaces, and configuration support for complex buys.

There are plenty of Internet-based application which provide support for the information stage of B2B purchase (Gebauer & Scharl 1999, Kim & Shunk, 2004, Grewal et al. 2015). It is proposed that Internet and associated search engines lower the costs associated with the search for supplier to contract purchases and scanning for appropriate product to order (Subramaniam & Shaw 2002, 25). Mantrala & Albers (2012, cited in Grewal et. al 2015) note that dependence on the face-to-face events is reduced when B2B buyers utilize Internet sources to collect information about sellers' offerings and product quality. Digital information technology enabled firms to acquire information from suppliers, other buyers, independent reviewers and growing online communities about products and sellers thereby

supporting identification and evaluation of potential partners. Advances in digital information technology also allow more buying participants to engage in buying decisions. The sellers also take advantage of digital information technology by participating in online forums, panels, blogs, webinars and online demonstrations to share best practices and promote cross-customer learning. (Grewal et al. 2015, 201-202).

Recent non-academic publications discuss that self-service portals for corporate customers, which enables them to manage their own accounts and perform tasks, providing instant access to information are an important tool of customer service (Szirtes 2019; Salesforce 2019; G2 2019). Online self-service account and catalog management allow transition of offline B2B processes online for convenience and smoothness at the same time accelerating customers' purchasing decision, consequently, making it easier to buy (BigCommerce 2019, 23). Kim & Shunk (2004, 157) mention that if catalogs are in a buyer-specific format, supplier first have to recognize, validate buyer and display products and prices according to the pre-established contract. From the buyer's point of view, corporate accounts and catalogs provide easy access to information as an order, invoice, and pricing can be independently reviewed as well as technical support or product-related information accessed. Drawbacks are that in case of multiple suppliers, buyers have to create numerous accounts, utilize different interfaces, and face limitations for comparative shopping. (Kim & Shunk 2004, 157).

When information gathering transforms to negotiations, there is a variety of situations. Kim & Shunk (2004, 155), note that before the appearance of the Internet available there was little support for the negotiation phase. Gebauer & Scharl (1999) note that simple negotiations have higher degree of structurability, for example well-defined form of negotiations are auctions; if constrained to price alone, negotiations are relatively easy to automate and requirements from the information system are efficiency and precision. Complex negotiations, consisting of offers and counteroffers, demand real-time interaction and access to such data as spending volumes and buying patterns instantly in order to support the bargaining position (Gebauer & Scharl 1999). Bilateral direct negotiations with pre-established partners can also be carried out through document or message exchange systems (Kim & Shunk 2004, 160).

For the cases when products and services are standardized, third-party e-marketplaces are beneficial at several stages of the purchase process. Such e-marketplaces enable scale of economies by offering only one catalog to manage, content and format of which is normalized for product comparison. They can be updated frequently and enable such processes as price and availability checks and tracking the content changes. (Hughes 2000, cited in Kim & Shunk 2004, 158). Third party e-marketplaces also support negotiations by enabling auctions, reverse auctions, bid, exchange and one-to-one negotiations on a real-time basis (Kim & Shunk 2004, 157).

Post-trade stage

Post-trade phase of a transaction is associated with the transaction analysis and storage of transaction information. According to Gebauer & Scharl (1999), data warehousing applications allow the buying firm to assess supplier performance, analyze internal buying patterns, thereby improve the quality of the information phase of future transactions. Additionally, it supports bargaining positions of a buyer and allow consolidation of corporate buys. Osmonbekov et al. (2002, 156) explains that access to transaction history represents an additional opportunity for enhancement of communication between organizational buyer and seller. The authors give example of established by the supplier password-protected online database of purchase history which enable buyer to receive relevant product information; this functionality decrease time for new information search, increase the ease and speed of new purchase.

3.3 Transaction-oriented

Capability of a e-business tool to carry out a transaction refers to the *ordering and settlement* phase of the purchase process. Gebauer & Sharl (1999) explain that in the settlement phase activities and procedures are part of the contract, therefore they are rather well defined. Authors note that efficiency and precision are required from an information technology which should enable processing of orders internally and between transaction partners, facilitate order tracking, and support payment processes. Additionally, means of handling exceptions should be present. If occasional users utilize the system, graphical elements and navigational aids should be incorporated in the interface. (Gebauer & Sharl 1999). Osmonbekov et al. (2002, 155) discusses that there are numerous transaction-oriented

technology tools which facilitate exchange by electronically streamlining order entry, payment transfer and inventory management, among which are web storefronts.

Although web-based selling is associated with security concerns, it is proposed that it results in cost efficiency and task efficiency of procurement (Osmonbekov et al. 2002, 161). In a recent McKinsey survey study among B2B decision makers, lack of speed in interactions was found to be a significant source of dissatisfaction leading to the situation when buyers prefer using self-service tools for reordering, rather than talking to a sales representative (Maechler et al. 2017). Even in case of customized product development recent advances in information technology, telecommunications, and manufacturing have made it easier for sellers to interact with customers (Stump et al. 2002).

The work of Pujari (2003) revealed that improved speed and increased process efficiency of ordering are key sources of satisfaction from using self-service tools in B2B context: web-based transactions were found to be faster and simpler than e-mail ordering, lack of interpersonal encounters and delays narrow the number of steps. Interestingly, that some respondents within the investigation of Pujari (2003) noted that the efficiency is concerned with the routine needs and purchases. Also, in the study of Bhappu & Schultze (2006, 378) buyers expressed that self-service tool would enhance their efficiency and productivity by automating tasks and increased access to ordering service.

4 RESEARCH DESIGN AND METHODS

This section introduces the design and implementation of the empirical part of this work. Qualitative case study was chosen as a research strategy since this approach allows to investigate phenomenon in depth within its real-world context, requires no control of a researcher over the relevant behaviors and focuses on contemporary events (Yin 2014). Multiple case strategy is preferred to a single case study since the research questions imply the need to check up if the findings of one case hold in other cases and generalize them, also it would be challenging to justify the choice of a single case. The primary unit of analysis (the “case”) in this work is buying organization (ice-hockey sport club).

4.1 Research context

Six Finnish ice-hockey clubs were selected as cases for the study. The cases included three junior clubs, consisting of multiple teams of various ages, and three clubs of so-called representative team, playing in the top professional or second-highest ice-hockey league in Finland (further representative club). The case clubs were from three different cities, one junior and one representative club were selected from each city. Since the focus of this study was on the purchase process, buying participants, decision making approach and technology utilized for purchasing of ice-hockey apparel and equipment, the source of the goods was not significant to this study. Description of junior ice-hockey clubs (pseudonymously named Club 1, Club 2 and Club 3) and clubs of the representative teams (named Club 4, Club 5, Club 6), participated in the case-study, is presented in the Table 6.

4.2 Data collection and data analysis methods

This study utilizes a single data collection technique, semi-structured interviews with pre-defined themes. Interview, resembling guided conversations, is one of the most important sources of case study evidence (Yin 2014, 110). Semi-structured interview is appropriate for the situation when the questions are complex or open-ended and where the logic of questioning may need to be varied (Saunders et al. 2009, 324).

	Location			Size	Organizational form	Executive leader	Key informant for the data collection
	Town A	Town B	Town C				
Junior clubs (Club 1-3)	1 club	1 club	1 club	1 club: ≈250 players 2 clubs: ≈400-500 players	registered associations (non-profit organizations)	chairman/ executive manager	- chairman - executive manager - equipment manager
Representative clubs (Club 4-6)	1 club	1 club	1 club	Small to middle sized clubs: ≈30 players (representative team) + staff	incorporated companies	managing director/ sport director	- equipment manager - sport director

Table 6. Description of case-organizations

Prior to the principal data collection, one explorative trial interview was carried out with the person, who had been a team manager of a junior ice-hockey team for several years. This interview provided general understanding of the equipment and apparel purchase context, gave incentive to refine research questions and helped in developing appropriate vocabulary for further interviews.

Data was collected by six personal one-to-one interviews with the club representatives, who are currently actively involved in and have previous experience in the apparel and equipment purchase process within own club. If there was a position of equipment manager, this person was interviewed, in clubs without such designated position, interviewees were either chairman, executive manager or sport director. The interviews lasted from 25 to 50 minutes and took place mainly at the interviewees' locations (ice-hall/office), one interview was taken at the public place. Research ethics received an attention during the data collection. At the beginning of each interview, respondents were presented with background information and purpose of the study, respondents were informed how and by whom the primary data will be utilized and analyzed. The permission to record each interview were obtained. Several respondents expressed an interest to receive a final version of the report after analysis.

Taking into consideration that in the introduction part a clear conceptual framework and explicit research questions were created, the prestructured case outline was developed before data collection. Case outline represents a framework for the data to come, this technique is appropriate when time available for processing qualitative data is limited as it streamlines data collection and analysis (Miles & Huberman 1994, 83-84). The case outline is reflected by the structure of the Chapter 5 (Findings). In order to ensure that interviews cover the main components of the conceptual framework, the interview guide was developed. The guide includes theory-driven open-ended questions and also follow-up questions which allowed to obtain information if not covered by the interviewee. In addition, the interviews were supplemented with the informants' free descriptions of the relevant matters in the context of buying process as a dialogue developed between the interviewer and the interviewee. The guide is presented in the Appendix 1. The technique described above is consistent with Yin (2014) who suggests that case study interviews may be more focused rather than encompassing an extended period of time. In that situation, data collection still relies on open-ended questions and a conversational manner, however researcher follows case study protocol more closely. Yin (2014, 111).

All of the interviews were recorded and transcribed into written form. Figure 4 presents analysis sequence of prestructured case adapted from Miles & Huberman (1994, 85). The outline was established before the data collection, interview transcripts were coded, and data displays were created. Next conclusions from the displayed data were made and reported in the findings. In order to address the weaknesses of such analysis, coding was done from transcribed interviews, not from scribbled field notes (as noted in Miles & Huberman 1994, 85).



Figure 4. Analysis sequence. Adapted from Miles & Huberman (1994, 85).

In this study the coding was carried out “by hand” using Microsoft-Word. Prior to data collection, the “start list” of theory-suggested codes was established as advised by Miles & Huberman (1994, 58). In the process of analysis certain codes were modified, combined, reconfigured and new codes emerged when important matters were uncovered in the process

of research. Data display is a part of an analysis and is defined as an organized, compressed assembly of information that enables conclusion drawing (Miles & Huberman 1994, 11). Data display was created in a form of a list which displayed data from individual cases under the categories of codes. Such display allowed to perform cross-case synthesis and identify whether different cases share similar profiles. Cross-case material forms a bulk of the report of findings.

4.3 Reliability and validity

Reliability of the study refers to the extent to which data collection technique will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw data (Saunders et al. 2009, 600). The goal of reliability is to minimize the errors and biases in the study (Yin 2014, 49). The reliability of this research is increased by the explicit description of the research process and maintenance of the case study database. This paper explicitly describes the research purpose, its context, underlying conceptual and theoretical frameworks, and presents procedures utilized in the empirical part. Therefore, external reviewers are well-informed about how the case-study was designed, how data was collected and analyzed. Each step of the study is operational and transparent, so that potential later researchers are likely to arrive at the same findings.

Internal validity refers to the matter of making inferences (Yin 2014, 47). It should be acknowledged that validity of this study is influenced by the single data source and omittance of the triangulation due to limitation of time and other resources for the research. The extent to which results can be applicable to other research settings, that is generalized, characterizes the external validity of the research (Saunders et al. 2009, 158). In order to increase the external validity of the research, multiple case study was preferred to a single case study. It makes sense to suppose that the findings are generalizable to the context of ice-hockey equipment and apparel purchase by sport clubs within Finland, however generalizability to the purchase process in other countries is limited. Nevertheless, the limited external validity can be explained by the goal of this study, which puts emphasis on understanding of what is going on in the chosen research settings rather than producing a generalization for other contexts.

5 FINDINGS

This chapter reports findings throughout subsections which correspond to the research questions specified in the introduction. General purchase policy is added in order to introduce to the reader the overall logic of the purchase practice in the case ice-hockey clubs. Throughout the chapter focusing is on the selection of and interaction with the immediate supplier of apparel and ice-hockey equipment. Where relevant, the findings concerning an intermediary (local merchant) are also presented. The findings are organized as a cross-case synthesis, however revealed cross-case differences are explicitly displayed.

5.1 General purchase policy

The introductory inquiry about purchase policy showed that clubs have agreements for the supply of club apparel and ice-hockey equipment, which are signed for a certain time period, normally 3-5 years. Ice-hockey season starts around August and last till around end of May. Contractual period starts in the spring and ends in the springtime after 3-5 years, before that time new contracts are negotiated. During the contractual period larger orders are made in the springtime for the coming season and additional orders are placed throughout the game season.

The results showed that mostly clubs conclude a tripartite agreement with immediate manufacturer (its representative in Finland) of ice-hockey equipment and apparel (further referred as “supplier”) and a local store (further referred as “merchant”). There were differences between cases, junior Club 1 does not interact directly with supplier and signs contract only with merchant, on the contrary representative Club 4 makes agreement with a supplier only. It should be noted that in all investigated supplier of apparel and supplier of equipment were the same.

Players of *representative clubs* (Clubs 4-6) are obliged to use apparel and equipment provided by their club. The ordering is implemented in a centralized manner supervised by equipment manager or sport director (if no equipment manager) and orders consist of a comprehensive set of apparel and equipment. Orders are placed by the club’s representative

directly to the supplier and goods are delivered to ice-hall, however Club 5 informed that they place orders through the merchant and goods are delivered to the store for pick up.

Junior clubs consist of teams of different age groups which are guided by team managers. Team managers are coordinated by the equipment manager (if no equipment manager, then chairman/executive manager). Contract determines the apparel of what brand should be purchased by the teams and includes so called “club price” for the equipment. Ordering and delivery of apparel occur through the contracted merchant. Purchase of club apparel is determined by the decision of each team and is not obligatory. However, if any club apparel is ordered, it should be purchased from the contracted supplier through the designated merchant. In practice, it is teams do order travelling apparel, such as hoodies, shell suits and snowsuits. Concerning equipment, players of junior clubs are not obliged to buy equipment of a contracted supplier, however they should choose gear according to color guidelines of their club. They may take advantage of a club price when buying equipment of contracted supplier from the designated merchant.

As the results showed both junior and representative ice-hockey clubs follow an established general policy regarding the purchase of apparel and equipment. In cases of representative clubs, such purchase is centralized and is supervised by a person in coordinative position (such as equipment manager or sport director). In junior clubs, the decision to purchase and its implementation have less centralized nature as they are delegated to the personnel of each team (team managers) or players themselves (regarding equipment) with equipment manager/chairman controlling that purchase is carried out according to the contract terms. Considering that junior players are themselves responsible for the selection and purchase of equipment as well as associated textiles (like training shirts), their buying relates to the area of consumer behavior. Therefore, the reported findings regarding the equipment purchase are not applicable to junior clubs (unless explicitly mentioned) and relate to the apparel purchase which is done jointly according to the contract with the supplier.

5.2 Buying process

This section includes findings of the activities which take place at each stage of the purchase process according to the model, developed in Chapter 2.1.3. This chapter emphasizes the

activities implemented by the buying center of the clubs during three stages of the purchase process. This chapter contains no detailed description of how the activities are performed and what actor of the buying center are responsible, since it is reported in the subchapters 5.3.-5.6.

5.2.1 Pre-trade

According to the buying process model, applied in this study, pre-trade phase aims at supplier selection and activities at this stage are focused on the relevant information gathering, identification and evaluation of alternatives. Since ice-hockey clubs continuously have contracted source of apparel and equipment supply, for the research purpose the starting point of the pre-trade phase was considered the time period not long before the expiration of the current agreement when there is need to make a new agreement either with the same or new supplier.

When the existing contract is about to expire, clubs implement search for relevant information from external and internal sources. Player's experience or opinion of the parents of junior players is assimilated on a continuous basis. In order to gather external information, negotiations start with the present supplier and, if there is interest to see other offers, responsible persons make offer inquiries to other suppliers in the consideration set. It was also revealed that often suppliers proactively approach clubs and initiate negotiations, thereby reducing the need of proactive information search by clubs. The results showed that ice-hockey clubs have strong predisposition towards 2, maximum 3, suppliers of ice-hockey equipment, which they perceive are qualified options and about whom they possess necessary information or which is easily available.

When the offers are received, the responsible actors of the buying center evaluate them according to the criteria (discussed in Chapter 5.4.1.), if necessary, perform additional negotiations and make the final decision. The findings showed that detailed specification of the goods is implemented after the supplier selection and refers to the phase ordering and settlement.

5.2.2 Ordering and settlement

There are differences in the ordering and settlement activities of Junior and representative clubs, therefore they are reported separately.

Junior clubs

Specification of apparel to be ordered is determined within a team with the participation of players, their parents and team manager. In one case apparel items to be ordered are specified by the board of directors. Merchant provides apparel for fitting in store or at the teams' trainings (depending on the club practice), the order list is composed and submitted to the supplier. Goods are delivered to the merchant and are picked from the store. Purchases of individual items throughout the season are made either from the merchant's stock or from supplier through the merchant.

Representative clubs

The selection of apparel and equipment is made during the presentation days which supplier organizes annually at the club's premises (usually ice-hall). Such days usually are organized in the springtime. Players fit the apparel, test and specify what equipment they will use throughout the season. Order list is composed and submitted to supplier. The goods are delivered to the ice-hall (in one case first to the merchant store) for further storage and distribution to the players.

Both junior and representative clubs seek to make larger group orders in the springtime to receive them for the coming season, delivery of additional orders during the season take from 1 week to 1 month.

5.2.3 Post-trade

The findings show that post-trade stage can hardly be delineated as an individual stage. According to the purchase process model, it includes activities associated with feedback and evaluation of the buying decision and storage of data from previous transactions. Feedback from players is continuously collected by equipment trainers and equipment manager in the representative clubs. In junior clubs feedback is collected by team managers who have

regular meetings with the equipment manager/executive manager. In the junior clubs repeat orders of individual items are initiated by players (parents) jointly with team managers. In the representative clubs they are initiated by players or equipment trainers following the condition of the equipment and apparel. When the current contract is about to expire there is discussion on whether the club is satisfied with the previous supplier and merchant, also expectations regarding apparel or equipment or concerning other matters in the cooperation.

5.3 Buying participants

As discussed in Chapter 2.2. researches do not define what degree of involvement is necessary for inclusion of a person in the buying center and the boundaries of the buying center remains vague. Moreover, Grewal et al. (2015, 195) note that the buying process may involve individuals and organizations external to the buyer and the party which implements the buying activities may differ from the one confirming the purchase decision. The findings revealed that though ice-hockey club establish contractual relationships with the supplier, often local merchant plays an important role in the purchase process, therefore in this work merchant is seen as buying participant.

The results showed that there is significant difference in buying participants between representative clubs and junior clubs, therefore the findings in this section are reported separately for these types of clubs.

5.3.1 Pre-trade

Junior clubs

The findings showed that pre-trade stage of the purchase process within junior clubs involve multiple actor. They are players, team managers, equipment manager, executive manager and chairman/board of directors.

- *Players* have indirect role in the supplier selection as they provide formal or informal feedback which is assimilated by the team managers. It should be noted that in junior clubs, players are often represented by their parents.

- *Team managers* forward players' feedback to the upper level personnel during regular meetings (depending on the club structure it is equipment or executive manager, or chairman with executive responsibilities).
- *Equipment/Executive manager/Chairman* is responsible for the identification of supplier alternatives and offer inquiry.
- 2-3 members from the board of directors or, *so-called executive group*, negotiate and make the final decision, signs the contract. In one case negotiation and decision-making responsibility was on the executive manager of the junior club.

The interviews showed that usually merchant does not affect the supplier selection. However, in one case (junior Club 1) the interviewee noted that merchant participated during the supplier selection phase, as the club does not establish contact to the supplier and merchant is involved in the identification of alternatives, offer inquiries and negotiations. Though the final selection of the supplier is made by the members of the board of directors of the Club 1, the merchant establishes contractual relationships with the selected vendor.

Representative clubs

Just like in the cases of junior clubs the purchase process within representative clubs involves multiple actors, however there are certain distinctions due to different organizational structures:

- *Players* have indirect role in the supplier selection as they provide feedback which is assimilated by the equipment trainers and equipment manager/sport director (where no position of equipment manager).
- *Equipment manager* forwards players' feedback and expresses own opinion to managing director of the club
- *Managing director and equipment manager* jointly identify alternatives.
- *Managing director/Sport director* negotiates and makes the final decision, signs the contract
- *Board of directors*, consider some outstanding matter, often, just approves the supplier selection.

Representative club as a buying participant for junior club

Owing to the open-ended nature of questions and possibility of the interviewees to discuss relevant matters, it was revealed that the supplier selection of the representative's clubs

influences the selection of the junior club. While being distinct organizations, often they implement joint negotiations and in practice the equipment and apparel supplier of the representative club becomes chosen also by the junior one. The representatives of the junior clubs explained:

“We had times when we had different supplier for junior club, in practice it didn’t work. Liiga works with the same supplier as Junior, it gives us advantages and simplifies negotiation position. [...] We rather follow what Liiga club does. If they change supplier, it is likely that we change.”

“If we can make a good joint agreement, it will give advantage to both sides, it affects. Let’s see when there are next negotiations, now it is best option.”

The responsible persons of the junior clubs perceive that they receive advantages when selecting the same supplier as the corresponding representative clubs. In all investigated cases from three different cities, the selected supplier of the representative team was the same of the corresponding junior club. Thus, representative club, though formally being an external organization, is an influencer of the supplier selection of the junior club.

5.3.2 Ordering and settlement

Junior clubs

During interviews certain differences were revealed regarding how ordering and delivery are implemented in the junior clubs. Nevertheless, in all cases local merchant has an important role and is included in this section as a buying participant.

In two cases, the composition of the buying center and the task during the ordering and settlement phase are the following:

- *Teams*, guided by the *team managers*, decide which apparel items are to be ordered
- *Merchant* provides fitting pieces to team managers
- *Team managers* deliver fitting pieces to players (during training), compose order list and delivers it to the merchant
- *Merchant* processes and forwards the order to the supplier, receives goods
- *Team manager* picks the goods and distribute them to the team
- *Merchant* maintains intermediate stock of extra items of apparel and equipment for faster access

- *Merchant* provides corresponding service to team managers
- If players come to purchase equipment from its store, *merchants' salesman* also provides corresponding customer service to the players and their parents

According to the results, one of the junior clubs implements ordering differently by delegating more responsibilities to players:

- The club representative delivers the players' name list to the merchant
- *Players* visit the store, try on the apparel and order through the dedicated salesperson in the merchant's store, players pick and pay for the goods when they are delivered to the merchant
- in this case *Merchant's* responsibilities also include customer service associated with the assistance provided to each player and their parents

The club's representative explained that:

"It is easy for the club, no need to circulate goods through the club. At some point we had it so, that good came to the ice rink in the boxes, it was quite a work to distribute them and arrange payment"

Representative clubs

The results showed some differences in how ordering and delivery is implemented among representative clubs. The differences are discussed below:

Two cases have the following composition of the buying center and the tasks:

- *Players* – during the annual presentation days players try apparel and equipment and indicate their choices to the equipment manager/equipment trainers
- *Equipment manager/sport director* compose an order list and submit order directly to the suppliers' representative
- The goods are shipped to the ice-hall and handled by *equipment manager and trainers*

In one case of the representative clubs, ordering and delivery is carried out through the merchant, that is order list is submitted to the merchant who forwards it to the supplier. Goods are shipped to the supplier and equipment trainers pick it up for further distribution to players.

As the results showed there were significant differences in the composition and the size of a buying center of junior and representative clubs. The implementation of this phase of the

purchase process is more centralized within the representative clubs whose buying center is smaller, regardless whether ordering occurs through the merchant or directly.

5.3.3 Post-trade

This stage refers to the participants and their tasks concerning feedback and evaluation of the buying decision and storage of data from previous transactions. For all cases players represent the sources of feedback, which is assimilated by equipment manager/sport director (in the representative clubs) and team managers (in junior clubs). Team managers forward feedback to the equipment/executive manager/board of directors during regular meetings. The result showed that in the representative club equipment managers/sport director utilize some formal techniques of data management in the post-trade phase, such as:

- storage of players' order details for repeat purchases throughout the game season
- records of stick usage by each player for "value-for-money" analysis

As discussed by the interviewees, feedback gathering represents a continuous process and cannot be seen as a point in time. It is obvious that this phase is a pre-requisite for and turns into the information gathering for a new buying decision when the contract is expiring.

5.4 Buying decision approach

This section reports findings relevant to the research question regarding the buying decision approach according to taxonomy of Bunn (1993).

5.4.1 Buying activities

Information search

Information search refers to the buyer's effort at scanning the internal and external business environment to identify and monitor information sources relevant to the focal buying decision (Bunn 1993). The results showed that ice-hockey clubs put little effort at relevant information search from external sources and mostly utilize internal sources relevant to the purchase decision.

The interviewees revealed that the buyer's search for information about suppliers' offerings is very limited what is explained by the relatively small number of pre-qualified suppliers, with which it is reasonable to make an agreement, and easy availability of information. It was also explained that clubs are likely to consider first their present supplier and prolong their contract unless they are dissatisfied. External information search is implemented mainly by offer inquiries from suppliers in the consideration set, however often suppliers proactively contact and initiate negotiations when they know about expiring contract. It was revealed that Internet sources such as social media and other sources of users' reviews do not represent valuable source of information for the club's personnel in coordinative positions. Example quotes are:

"We almost do not need to contact [...] if we want to see competing offers, we ask for them."

"Either we ask for offers or they are contacting us, because they all know that our agreement is expiring. We receive some offers. [...] This is quite narrow field after all, everything is known, information is already enough. There is no need to start looking at what is [brand name], we already know what it is."

The interviewees showed that focus is on the internal sources of information, such as players' feedback and experience (in representative clubs) and feedback of team managers (in junior clubs):

"[Information search] is like everyday practice. We listen to players about equipment quality, if they stay, if they break easily. We do not search for it from Internet, it is here in everyday use. We do not really look for the information on what other suppliers offer."

"Information is very well available, we can ask feedback from other clubs about their equipment supplier, how the equipment stands, if they were satisfied, we can exchange some general information."

"We don't use social media to search for feedback, at least I do not use. Mostly, asking from users. Do not use Internet for reading reviews, it is not useful, we are close to users. And suppliers have representatives, we work with them."

It should be noted that internal information gathered for a new buying decision is a result of a continuous process of feedback collection which overlaps with the assessment of the previous supplier selection. Considering narrow information search from external sources and significance of gathering of internal users' feedback, it is concluded that clubs implement *moderate amount of search for information relevant to the focal buying decision.*

Analysis techniques

To the question about how the evaluation of alternative buying options is carried out, the respondents mainly discussed criteria for the certain merchant and supplier selection, however some qualitative tools were also mentioned. Criteria for supplier and merchant selection, which were identified as decisive, are quality of goods and satisfaction of players', availability of the whole package of apparel and equipment from the potential seller, offered price, offered after-rebate or other forms of financial support of the club in return for visibility.

Clubs perceive that by purchasing a whole package (textiles and equipment), they can receive a financial advantage, therefore it is a criterion for both supplier and merchant selection, that their assortment includes all the necessary items. Regarding the selection of the supplier, junior clubs put emphasis on the price and after-rebate, most inexpensive option is selected. Representative clubs, in which equipment is purchased in a centralized manner, in order to evaluate quality of equipment, put emphasis on following the usage of sticks. For this purpose, they utilize tables. Example of quotes:

"The evaluation is quite simple, what is under the line."

"Quite substantial is, for example, we had previously agreement with [brand 1]. Then we follow during [brand 2] agreement how many sticks or skates are used, we compare them, and we see, from what option we get more value for money, because there is difference."

"We follow stick consumption using tables, how many are broken, how many new sticks each player needs."

Regarding the merchant selection, clubs put emphasis on its proximity, expertise and ability to maintain certain stock for fast availability:

"Expertise service provided by the merchant is important. It is important that parents when they go to the store, they do not necessary understand anything, so that they receive expertise service and buy right goods. In the larger store salesperson does not necessarily have professional skills."

"We favor local merchants, primarily from this town. Also what is the store, who is the shopkeeper, how things work between us, this influences."

As seen, interviews did not allow to extensively clarify utilization of formal and/or qualitative tools in the evaluation of the buying decision. However, obtained information evidences that certain cost and value analysis is performed also including comparison with previous purchase decisions. Selection criteria discussed during the interview were mainly

of qualitative nature and similar in all cases. Therefore, it can be considered that there is *moderate level of formal and/or qualitative analysis* performed in respect to the purchasing decision.

Proactive focus

The findings showed that decision making related to the apparel and equipment purchase has *high level of proactive focus*, the clubs strive to get reliable long-term partner regarding both supplier and merchant. Buyers perceive that through long-term collaboration they learn to work out arising matters with their counterparts and the purchase process becomes smoother. Also, agreements lasting for several years are more convenient for players since they get used to certain models of equipment. Example of quotes:

“When we have 4-year agreement it is quite stable, collection does not change each year, when players order, they know what they get. It is important. Longer-term joint work with supplier also result in partnership and credible relationships, that it works, it is important that it is long-term that it does not change.”

“We want long-term relationships, because the joint work becomes better. We would not like to change direction, because it requires additional organization to get it work.”

It should be noted that only in one case the interviewee noted that they would prefer shorter-term contracts and would be willing to arrange competition regularly. However, the proactive focus of this club was illustrated by attention to the player’s needs:

“Here mostly price is important. From our viewpoint it is not worthwhile to make such long agreements, we could arrange competition annually, however this is what supplier offers. Players also get used to certain brand, nowadays from a large team 90% play in [brand name] skates and currently [brand name] sticks are in the opinion of many are good. Because of this, there is no reason to change.”

Procedural control

The findings indicated that ice-hockey clubs *follow standard procedures* when making buying decisions. Such, in junior clubs, team managers, responsible for the ordering act according to terms indicated in the contracts, whereas decision-makers follow same procedures as previously when selecting supplier and merchant organization. In the representative clubs’ responsible personnel also utilize same mechanism and criteria to make the buying decision. The procedure for buying apparel and equipment is rather straightforward and responsibilities during this process are clearly defined. The interviewees perceive it as a routine (in a good sense).

“This is a routine process currently. There are no challenges.”

“[During the supplier selection] responsibilities are clearly defined.”

5.4.2 Situational characteristics

Purchase importance

It was identified that the importance of the apparel and equipment purchase for clubs' activities is *quite high* which is determined by its significance to the public image, safety, performance and clubs' financials. The significance of apparel refers to the public image of the club which was emphasized by both junior and representative clubs. The example quotes are:

“It is important, because it gives a public image. When team travels around Finland and represents the club, we want them to look similar as a team.”

“Outfits in which we travel to games, we need to ensure that they are after all stylish and it is seen that it is a sport team. It affects the impression of people, from there comes visibility.”

The importance of equipment purchase was emphasized by representative clubs and is concerned with safety, performance and its financial value. The example quotes:

“Players' equipment is not visible, except goalie, they are hidden. It is important, that it is safe and is good for the players. [...] They are after all valuable players and very good care should be taken of them.”

“It is very important, that equipment is intact and protect from injuries”

“Most important is that we have good skates, good sticks, because it affects work performance”

“It is a very large part of our budget, equipment and club apparel accounts for around 10% from the whole budget”

“Financially it is significant part of the budget, over 200K euros.”

Purchase Uncertainty

The results showed that the interviewees perceive that there is *no uncertainty* associated with the buying decision, that relevant and necessary information is easily available. The example quotes are:

“We have enough information, there are no big changes in our needs, quite similar from year to year.”

“Information is easily available. No problems with that.”

“Needed information is well-available, if we need some info it will be found.”

Extensiveness of choice set

The interviews discovered that the breath of alternatives available as choices regarding both the supplier and merchant is *narrow* under the established criteria. The sellers are concentrated and there are no substitutes. Currently, the consideration set of the case clubs consists of maximum three globally leading suppliers and in practice only two of them are examined more closely. Concerning merchant selection, the clubs almost have no alternatives besides their present partner, however this range of alternatives could be expanded by one or two options if consider merchants from neighboring cities.

“There are in practice just 3 suppliers who have goods of good enough quality [to make an agreement]. Not more. [...] From those 3 it is worthwhile to ask offers.”

“There are three alternatives: [list of the brands]. These are, at this moment, what one can get in Finland. One of them is in the shadow on first two, because they have narrower assortment.”

“In the ice-hockey there is not extensive choice set of suppliers. Concerning merchant, we worked with local store, then we switched to larger international store and it did not work, then we switched back to the local store and it works again.”

“In this city there are not many [merchant] alternatives, one, and another alternative is in [neighboring city]. In practice two options, from which we choose local.”

Buyer power

All the clubs consider that they are important customers for their counterparts, supplier and merchant, and perceive that there is no disbalance in the negotiating strength, so they can achieve agreement which satisfy both parties.

The sources of perceived buyer power were discussed. The source of buyer power of the representative clubs is hard competition between the suppliers in the consideration set. Brands achieve better visibility if they supply apparel and equipment for teams playing in the professional league, additionally they are likely to become supplier for the corresponding junior club of the same city. Example quotes:

“Yes, we can negotiate quite well. [Two brands] compete hard, it is very important for them who supply more teams in SM-Liiga. They have a strong battle, this gives a club power to negotiate, should we take you or you. We have quite some negotiating card.”

“Liiga team represent also all the junior, they have different agreement. Supplier wants that juniors also purchase from them, there is after all 300 players.”

Buyer power of junior clubs mainly comes from joint negotiations with the representative club:

“We work with the same supplier as the representative club, it gives us advantages and simplifies negotiation position. If we would negotiate independently and take competing supplier, it would be a confuse, it does not work in practice. We would not be in a good negotiating position and we rather follow what representative club does. If they change supplier, it is likely that we change.”

Negotiating power regarding the merchant is ambiguous, the clubs stated that they perceive that they are important customers for the selected merchants as they account for a significant part of their sales revenue, however due to limited number of other reasonable alternatives, the negotiating power is limited. Considering the sources of perceived buyer power and absence of multiple substitute options, the negotiating power of buyer in this context can be considered as *moderate*.

5.5 Mode of B2B buying

This subchapter reports findings regarding the nature of relationships between buying and selling organization according to the framework, proposed by Grewal et al. (2015). It should be noted that interviews did not include direct discussion of the dimensions of the framework of B2B buying modes. The findings reported here represent combination and synthesis of the results presented earlier in order to determine which mode can describe B2B buying in the context of this study. Since the framework is rather new and its authors provide no buy characteristics focus is done on buying processes and locus of participants. Buy characteristics are utilized as a guidance in the discussion section.

5.5.1 Buying activities

Buying decision confirmation represent the buyer’s decision in a form of a renewal or modification of the existing buying decision. As the case study showed, contract with supplier and/or merchant is rather a strategic decision which is made for 3-5 years and favor long-term cooperation. During negotiations parties set conditions for further ordering of goods throughout the term of the contract.

Buying activities implementation are actions undertaken to acquire goods within the parameters of the buying decision. It was revealed that the needs of the clubs remain similar,

there are no significant variations in the goods acquired every year. The respondents also informed that the supplier representatives (responsible for the certain region) are familiar persons with whom they deal during the ordering. Merchants also appoint dedicated salesperson responsible for the club orders and, as well club's personnel placing orders remains the same. When ordering occurs through the merchant, the organization (merchant) ordering from the supplier does not vary within the contract term. Though the degree of change in the price were not investigated, such terms as interface of ordering and delivery location do not undergo changes. Thus, it can be concluded that there are *minimal or no alternations in buying elements*.

Evaluation of buying activities involves examining the coherence, effectiveness, and efficiency of all buying activities taken place within the parameters of the deal. The case study showed that usually buying activities are coordinated by equipment manager (if no such position, then managing director or chairman in the junior club) who supervises and analyses buying activities on ongoing basis. Therefore, according to the framework of Grewal et al. (2015) such evaluation can be described as *ongoing carried out by buyer representatives and oversight managers*.

Reassessment of the buying decision refers to analysis of the foundations of the current buying decision and may include changes to the buyer's needs and capabilities, emerging opportunities, alternative offers. As the results showed responsible personnel of the club performs continuous assimilation of information relevant to the current and future buying decision. However, the clubs have comprehensive understanding of the products which is accompanied by high availability of information, they perceive there is low degree of uncertainty. Taking into consideration the narrow set of possible alternatives, reassessment of the buying decisions is rather limited and mainly concerns with the comprehension of value for price offered by the present supplier. It was revealed that interviewees perceive that there are certain relationship-specific assets, which motivate clubs to continue relationships on the same basis. Such, informants noted that it took time to establish smooth ordering process when the supplier was new and it becomes better through the joint work, changes in the supplier are associated with the potential adaptation of buyer and seller to each other. According to the framework, it can be described as *motivation to modify rather than replacement relationships*.

5.5.2 Locus of participants

The results showed that *locus of participants for purchasing decisions is centralized*, clubs follow established procedures during the supplier selection and act in accordance with the contract terms when ordering. Though in junior clubs individual teams have certain power to make decision about either ordering or not, the team should adhere to the parameters (like source of goods) specified centrally.

Regarding the *locus of participants in the implementation* of the purchasing activities, the findings showed that there is limited number of seller-buyer interface points. In representative clubs buying activities are enacted by equipment manager who when necessary coordinate equipment trainers. In junior clubs buying activities are implemented by team managers and only in the case of one club, ordering activities are decentralized and are carried out by players.

5.6 Technology utilized in operations

In order to get insights into IT readiness and management support of a new technology, the interviewees were asked about club's general attitude and use of Internet technologies. It was found that ice-hockey clubs have positive attitude and utilize Internet technologies for various purposes.

Internal communication is mainly carried out by e-mail, in junior clubs and in some representative clubs instant messaging within teams is utilized through WhatsApp groups. Some of the junior clubs have intranet for internal information sharing with players. Social media channels (among them are Facebook, Instagram and Twitter) are utilized in all cases. All the respondents expressed that they attach significance to effectiveness of internal communication and social media use, informants told that their clubs either had lately put effort in the development of social media presence or strive to improve in this area of their activities.

It was revealed that the use of online stores for other purchases (not relating to apparel and equipment) is rather rare. In one case the interviewee from the representative club mentioned

that he used online stores in cases when there was irregularity in the delivery from current supplier. And in other case equipment manager informed that online stores are used for some smaller orders of random goods (like protection for the goalpost). It should be noted that although junior clubs do not use online stores as an organization, their players are most likely to make individual orders of equipment and training apparel online.

The result showed that in general, the usage of e-business tools in the equipment and apparel purchase process within the investigated cases is rather limited. E-business tools are mostly utilized in the pre-trade stage and focus on information gathering and sharing rather than transactions during the ordering phase.

Information-oriented

Such Internet-enabled *information-oriented tools* as catalogs in electronic form, along with paper-based, are utilized by some clubs. Mostly interviewees emphasized that even there are electronic brochures, when it comes to information gathering they put emphasis on either face-to-face discussion with suppliers and/or communication through message exchange system, that is through e-mail. Equipment manager from the representative Club 6 explained that he perceived that by contacting directly the supplier, the club would get better information about latest products, which might not be yet officially available in Europe. Only one informant from junior Club 1 noted that they do browse through electronic product catalogs and later discuss with the merchant without contacting the potential supplier.

Similarly, evaluation of suppliers happens through face-to-face meetings of the involved clubs' personnel and there is no technology involved in the feedback collection from players. Equipment manager from Club 6 noted that they utilize cloud storage, for example, for warehousing and budgeting data, which is shared with managing director. The same representative mentioned that personal data of each player, like size of apparel and equipment, is stored internally in an electronic form for later purchases.

Transaction-oriented

Regarding the *transaction-oriented e-business tools*, it was revealed that no e-store fronts are utilized for ordering. In all cases, regardless of whether order is placed to supplier directly or through merchant, ordering by clubs is carried out through sending an e-mail with Excel-file. Equipment manager from representative Club 4 emphasized that for larger orders he likes to visit the office of the supplier's representative in the capital town in order to go through the ordering list and discuss other relevant matters.

Even though design and manufacturing technology remain beyond this study, it should be noted that two of the representative clubs mentioned that some of their players take advantage of 3D technology when ordering skates. During the personal meetings supplier representative provide 3D scanner which takes comprehensive measures of the feet and allows production of highly customized skates.

Free discussions which occurred during the interviews concerning the e-business utilization showed ambiguity in the attitude of clubs towards the potential use of transaction-oriented e-business tools. The opinions varied within junior and representative clubs. Interviewee from Club 1 told that certain form of webstore for order-placements might be useful and this matter had been raised during the meeting of the board of directors, however due to small size of the town such advantage as 24/7 access to ordering might not be that relevant. Equipment manager from Club 2 noted it would be convenient to establish order information flow from team managers to equipment manager for confirmation and further forwarding to merchant, it would streamline the process and order history would enable to estimate the purchase volume for forthcoming negotiations. Informant from Club 3 expressed opinion that, though equipment usually needs customization, online stores for clubs would be developed in future. Representatives from Club 4 was skeptical about online store due to its impact on personal interactions, and manager from Club 5 was doubtful about its usefulness due to customized nature of equipment.

6 DISCUSSION

The goal of this work was to investigate how organizational buying is carried out in the context of apparel and equipment purchase by ice-hockey clubs and, based on the findings, discuss what supplier's e-business tools can be appropriate in the chosen industry. To achieve this, this work produced comprehensive description of the buying including purchase process, buying participants, approach to supplier selection, nature of buyer-seller relationships and technology, which is currently utilized. This section includes inferences made from the findings and accentuate their connection to the theory.

Buying process

In order to describe the apparel and equipment purchase process of ice-hockey clubs, this work utilized a three-stage model, which combined models of industrial buying (Robinson et al. 1967) and B2B transaction (Gebauer & Scharl 1999). Though extant literature questions the appropriateness of seeing an organizational buying as a sequential process (Hutt & Speh 1992, 71; Bunn 1993, 42; Grewal et al. 2015, 195), stage models are still utilized in the academic research (Tullous & Utecht 1994, Mottaghian 2004, Cano et al. 2005, Makhitha 2015). The multiple-case study within this work described the activities undertaken in the pre-trade stage, during ordering and settlement, and in the post-trade stage of the purchase process. The results showed that the purchase process of apparel and ice-hockey equipment can be characterized using the stage model in order to give a reader an understanding of the B2B buying in the chosen context, however particular inconsistencies can be observed, and they are discussed below.

First, the research showed that club apparel and equipment is a necessary "tool" for the player's activities, therefore the constant presence of a contracted source of such goods is essential. Thus, the purchase process is appropriate to view as a recurring circle where start of a buying process represents a transition from an expiring contract to a new contract (with either the same or new supplier). As Hutt & Speh (1992, 71) the steps of the purchase process may vary with the complexity of the situation and not necessary every phase is carried out. The results of the study showed that the purchase process in ice-hockey clubs does not necessary involve supplier selection stage. The contracts are concluded for period of 3-5 years and within this time ordering is made based on the selection of pre-contracted items

from one specified supplier. Renewal or modification of buying decision is made every 3-5 years.

Second, challenge is to delineate post-trade evaluation of supplier. Grewal et al. (2015, 195) noted that the processes of implementation, evaluation, reassessment and confirmation within B2B buying are rather contemporaneous than sequential. In the study of on organizational software purchase, Verville & Haltingen (2003) emphasized that the acquisition is nonlinear, some processes are done concurrently, some of the processes are embedded, iterative and recursive, and each process results in deliverables used by another one. Similarly, this study revealed that specifically evaluation of supplier and feedback collection is a continuous process undertaken by the clubs' personnel. The ongoing assimilation of information provides a basis for new buying decision, that is supplier selection.

Third, multiple-case study showed that supplier selection is closely associated with the merchant selection and often is implemented simultaneously for the same term. Purchase model for professional industrial services of Stock & Zinszer (1987) utilized by Mottaghian (2004) emphasizes the consultant selection process for further management of the project. In the context of this study, the merchant, being an external organization, participates in the purchase process and to certain degree assists both junior and representative club in managing their purchases. This finding illustrates how selection of a primary supplier involves selection of an intermediary.

Figure 5 illustrates the purchase process by ice-hockey clubs, it represents the framework of the activities and emphasizes regular nature of orders of pre-contracted items, continuous character of the evaluation which become a basis for new buyer decision for a fixed term.

Buying participants

The results of this study provide comprehensive description of the participants of the purchase process and their roles within junior and representative clubs. The findings showed that purchase in the representative clubs is more centralized where managing director responsible for negotiating and final decision-making while equipment manager implements other activities according to the contract terms. In junior clubs ordering is delegated to team

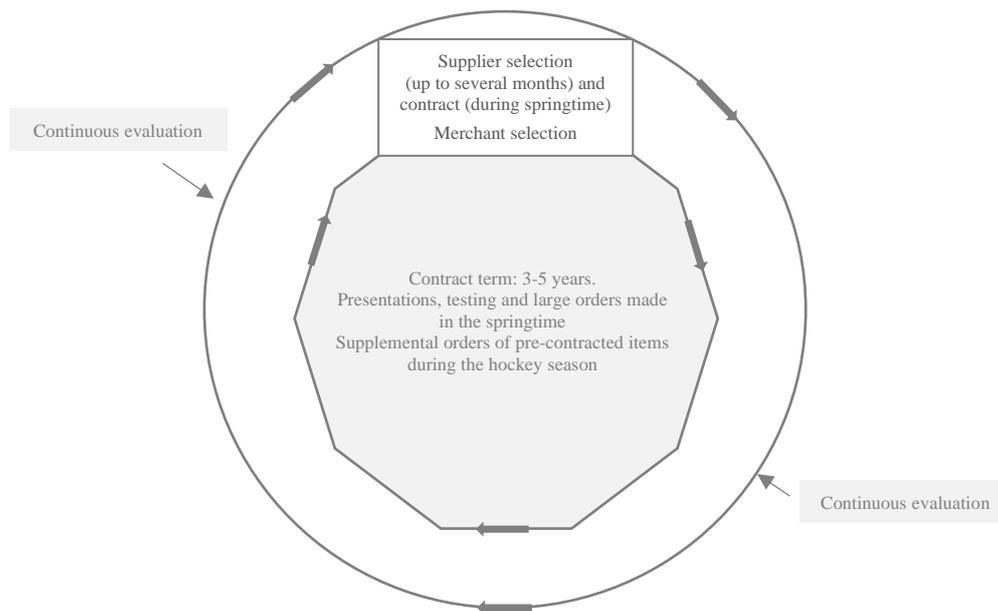


Figure 5. Framework of the apparel and equipment purchase by ice-hockey clubs.

managers who jointly with players identify needs and purchase items according to contract terms.

The multiple-case study allowed illustration of buying participants and its altering during the purchase process. The findings are consistent with the notion of Lilien & Wong (1984, 2) that buying group can undergo modifications during the organizational buying process in response to the information requirements and different individuals are important to the process at its different stages. Research of Mottaghian (2004) and Garrido-Samaniego et al. (2010), discussed in Chapter 2.2.2. explicitly illustrate dynamics of buying center during the purchase process, however significant difference in the research settings do not allow further comparisons with the results of this study.

According to McWilliams et al. (1992, 44), researches do not define what degree of involvement is necessary for inclusion in the buying center and its boundaries remain ambiguous. Grewal et al. (2015, 195) state that individuals and organizations external to the buyer can be viewed as buying participant. Though the identification of the buying center within this study focused on the clubs' internal personnel, it was revealed and illustrated how external organization can be a buying participant. Firstly, the case-study showed that representative clubs influence the buying decision of the corresponding junior clubs, in all cases the selected supplier of the representative team appeared to be the same of the junior

club. The clubs often have joint negotiation and, as perceived by interviewees, it increases importance of clubs as customers and enhance their bargaining positions. Secondly, the study showed that in some cases selected local merchant might influence the selection of supplier when involved in the identification of alternatives, offer inquiries and negotiations (observed in the case of junior Club 1). When orders are placed and received through the merchant, and, taken into consideration its close relationships with the clubs, this intermediary can be viewed as a member of buying center.

Buying decision approach

Buying decision approach of ice-hockey clubs can be described as *simple modified rebuy* according to the taxonomy of Bunn (1993). Based on the findings from investigated cases, presented in Chapter 5.4., the purchase of ice-hockey clubs to the selection of apparel and equipment supplier is characterized with high importance, little uncertainty associated with the purchase decision, narrow set of alternatives and moderate buyer power. Buying activities, associated with supplier selection, can be described as following of standard procedures with moderate amount of search for information, moderate level of analysis and high level of proactive focus. Such findings about clubs' buying behavior are relevant for practitioners in the field of ice-hockey equipment.

Mode of B2B buying

This work sought to utilize framework of B2B buying modes, proposed by Grewal et al. (2015). It is noteworthy that the framework draw attention to relationship-specific assets. The findings showed that adaptation between buyer and seller at the early phase of business relationships improves clarification of irregularities and enhances joint work, what motivates buyers to continue contracts.

The attempt to classify buying in the study context did not give a precise result. Due to the lack of explanation of the variables provided by the authors of the framework and absence of illustrating examples from industries, the inferences made regarding the mode of relationships in the context of this study is influenced by the interpretation of the researcher. The results showed that such dimensions of apparel and equipment purchase as buying decision confirmation, implementation of buying activities, buying decision reassessment and locus of participants correspond to the Routine Exchange Relationships mode. However,

evaluation of buying activities from Organic Buying Relationships better describe evaluation of buying activities. Regarding buy characteristics, the findings showed that purchase in the chosen context is characterized with low novelty, uncertainty and complexity, and high importance. These also correspond to Routinized Exchange Relationships, except complexity characteristic which is high in the authors' framework. Thus, the exchange relationships in the study context can conditionally be characterized as routinized and amenable to automation, however, it should be noted that finding showed inconsistencies. Such divergence might evidence that the suggested modes of B2B buying do not describe all variety of exchange relationships and that there are more modes. However, prior to the refinement, the authors of framework should provide explicit explanation of its dimensions for other researchers.

Task-technology fit

The results showed that although Internet is utilized by clubs in the purchase process, its capabilities are not fully realized, what resemble the results of research of Leek et al. (2003). Samaniego et al. (2010) showed that organizations combine off-line and on-line procurement processes, similarly ice-hockey clubs blend face-to-face communication with supplier and merchant with internet-enabled tools like usage of electronic brochures and e-mail.

The findings showed that organizational characteristics of ice-hockey clubs, such as IT readiness and management support, favor increase of utilization of Internet-technologies in their activities. Moreover, high proactive focus and disposition towards long-term relationships reinforce potentials of automation of some purchase activities. The discovered characteristics of the buying process provided insight into what activities can be supported by e-business and they are discussed next.

As showed by Samaniego et al. (2010) novelty of the purchase and lack of experience result in greater use of Internet for information gathering. Taking into account limited information search from external sources during the pre-trade stage of the purchase process, low perceived uncertainty and vast experience, clubs are not inclined to actively use Internet sources for the collection of purchase-related information. Clubs have a restricted choice set of suppliers and rely mainly on internal information sources for feedback. Therefore, the usefulness of electronic catalogs offering one-directional information flow might not provide

significant support to the buyers in the selected context. According to Gebauer & Scharl (1999), such hypermedia documents should be designed beforehand what limits the use of such tools to simple, well-structured tasks. However, since such electronic equivalents of paper-based catalogs represent cheap and efficient way to spread information (Gebauer & Scharl 1999), they may be produced by the supplier for the occasional use by existing and prospective clients, nonetheless should be supported by other means of communication.

Negotiations in the chosen context are not limited to price alone, clubs favor face-to-face discussions with suppliers'/merchant's representatives. It suggests that they are not amenable to automation through online auctions. As described by Grewal et al. (2015, 196) even repetitive, routine interactions between entities require human interactions for setting the parameters for operations.

As the findings showed, ordering of items represents rather structured and routine process and consist of preparation of ordering list which is exchanged with the supplier/merchant mainly by e-mail. Gebauer & Shaw (2004, 24) proposes that it is relatively easy to support or automate routine tasks with data processing. An alternative to message exchange can be electronic storefront with online-ordering system. Due to need for certain customization, catalog should be buyer-specific and contain pre-contracted items. As suggested by Gebauer & Scharl (1999) functionality should anticipate all situations that might take place and enable explicit communication in case of additional customization needs or other exceptions. In the investigated cases ordering information in clubs is exchanged between:

- representative clubs: equipment managers and supplier or (in one case) sport director and merchant,
- junior clubs: team managers and merchant or (in one case) players and merchant;

In cases where ordering occurs between the club and supplier directly electronic storefront can be established by the supplier. If order placement is carried out through the merchant such ordering system can be established by the merchant. Examples of buyer-specific online catalogs established by merchants are Teamsales for clubs (with no online order function) by Stadium (2019) and Intersport (2019) enabling order placement and payment from individual players.

It is also proposed that tasks of high interdependence result in best performance when information system emphasizes notification and communication (Gebauer et al. 2010, 264-265). In this sense there is a potential to enhance coordination of ordering activities in junior clubs by communicating information about needed items through intranet between team managers and equipment manager. In that case, equipment manager may become responsible for order confirmation and its placement through online system to the merchant what will enable preservation and easy access to purchase history of the entire club.

Incorporation in the suggested buyer-specific e-storefront interface access to the purchase history and associated data would streamline communications between parties. Particularly, access to purchase history is relevant for junior clubs, where aggregation of purchase data from different teams is time-consuming for equipment managers. It could accelerate demand and support negotiations at the pre-trade phase and speed up supplemental orders of similar items.

This study focused on the illustration of the buying task of the ice-hockey clubs and developed suggestions of the e-business tools that are appropriate for the selected context. As mentioned earlier, the examination of the technology in this work was not meant to be exhaustive, however the results of the study provide background for consideration of technology tools excluded from this study, such as buyer-centric e-procurement systems. An engagement of a prospective users understanding the business task in the design process of an information system and comprehension of the needs they may experience is highly desirable in order to achieve fit between the resulting solution and the task needs, position the system relative to competitors and address concerns (Bitner et al. 2000, 147; Meuter et al. 2000, 59; Goodhue & Thompson 1995, 230). This study provides solid background for the implementation of user-centered design of e-store for clubs featuring buyer-specific catalog, purchase history and ordering function. Through observation and participation in the purchase process future researchers can implement design of such tool, test it and refine for further utilization in B2B transactions.

7 CONCLUSION

The emphasis of this work was on understanding of organizational buying in the ice-hockey context. Although generalizability of results to other contexts is limited, the practical focus of the study benefits to managers working in the field of ice-hockey apparel and equipment as the implications go beyond the introduction of e-business only. The study provides comprehension of the organizational buying behavior, competitive landscape and criteria for supplier selection. While market of professional ice-hockey equipment is led by several brands, the results indicate opportunities for other producers such as targeting junior players. For the suppliers in the consideration set, the results provide insights for customer relationship management, such as strengthening buyer-supplier ties by introduction of e-business technology and its transformation into relationship-specific asset.

The study also contributed to the research on organizational buying. It agreed with the extant literature on the inconsistency associated with describing B2B buying as a sequential process. It confirmed and illustrated the dynamic nature of the buying center and identified situations in which external organizations served as a buying participant. The study also tested newly proposed framework of B2B buying modes for the description of buyer-seller relationships.

As a further research, it is advised to replicate the study in other country where equipment market is characterized with greater number of competing suppliers and/or higher availability of e-business tools for sport-clubs. Such study will allow comprehension of how organizational buying is interrelated with environmental characteristics. Additionally, since e-business solutions targeting sport clubs are evolving, it is suggested to implement longitude study in the same settings and identify what changes organizational buying will experience in the course of e-business technology adoption.

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APPENDICES

Appendix 1. Interview guide

INTRODUCTORY INFORMATION

- *(organizational characteristics)*

How large is the club?

What is general attitude to technology use within the club?

- *(purchase importance)*

How important and what is the meaning of the equipment and apparel procurement for the club activities?

- *(procedural control)*

Is there formal purchase procedure and what it is in general terms? What person/group of persons responsible for the purchase?

PRE-TRADE PHASE

Main question: *How supplier's evaluation and selection is carried out?*

Follow-up questions:

(buying center)

- *Who are participants on this stage and what are their roles?*
- *How does the buying decision of a representative club influence the choice of a junior club?*

(search for information)

- *How extensive is the search for information relevant to the buying decision? How it is carried out?*

(uncertainty)

- *What is the availability of information relevant to a decision situation?*

(proactive focus)

- *To what extent purchase decision considers long-term needs of the club? To what extent is directed at long-term collaboration with the supplier?*

(use of analysis techniques)

- *How the evaluation of alternative buying options is carried out?*

(extensiveness of choice set)

- *Are there usually many alternatives? What is the breadth of alternatives available as choices? From how many suppliers offers are asked?*

(negotiating power)

- *What is negotiating strength of a club in the buying decision situation? How important customer do you perceive the club is for the supplier?*

(utilized technology)

- *What technology tools are utilized during this stage?*

(continued on the next page)

(Appendix 1 continued)

ORDERING AND SETTLEMENT PHASE

Main question: *How the immediate ordering and delivery is carried out?*

Follow-up questions:

- *How often orders are made?*
(buying center)
- *Who are participants on this stage and what are their roles?*
(utilized technology)
- *What technology tools are utilized during this stage?*

POST-TRADE PHASE

Main question: *How buying decision is evaluated?*

Follow-up questions:

- *Who are participants on this stage and what are their roles?*
(utilized technology)
- *What technology tools are utilized during this stage?*

CLOSING QUESTIONS

To what extent do you perceive this process as a routine?

Can we discuss matters which cause challenges during the purchase process or suggestions for development?