

The challenges of cross-border co-development within the creative industries

- A case study within the video game industry

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Abstract

Title: The challenges of cross-border co-development within the creative industries.

- A case study within the video game industry.

Background and Problem: The development of the ICT sector, increased reliable Internet connections and communication infrastructures has enabled firms to come closer to each other to co-develop despite long geographical distances. Given these new favourable conditions, how do firms coordinate to know who is doing what? How is work divided between them? And how do they communicate with each other? These are questions that evolve when discussing cross-border co-development.

Purpose: The purpose of this study is to find out what the challenges are when co-developing cross-border within the creative industry.

Methodology: The empirical data for this thesis has been collected from focus groups interviews, one-on-one interviews, a telephone interview and through a survey. A case study has been carried out at one company that is co-developing video games. The Company and its employees are anonymous throughout the thesis. The collected data has been analysed against the theoretical framework that has been created by the authors to find out an answer to the research question.

Results and conclusion: We have in our research found that the challenges when codeveloping video games cross-border correspond to the conceptual framework, namely: Culture, Shared vision and Trust. These three keys are the cornerstones in a co-development and are the main challenges when co-developing cross-border. Our research found two areas that were not covered by the conceptual framework: Ownership and Processes. These were therefore added into the revised conceptual framework.

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Keywords

Co-development, Creative industries, Trust, Shared vision, Culture

List of Abbreviations & Definitions

ICT = Information and Communication Technology

Inter-firm = between firms, e.g. external relations

Intra-firm = within firms, e.g. internal relations

M&A= Merger and Acquisition

MNC= Multi National Company

R&D = Research and development

SUB1 = Studio 1, located in France

SUB2 = Studio 2, located in Sweden

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1. Introduction

The world is shrinking. This is shortly how one can describe the globalization and the impact of new technologies that have emerged and changed the landscape of the world and how we communicate and do business with each other over the last two decades. Notably it is the improvement of the logistics and the ICT-sector that has enabled companies to come closer to each other, and collaborate on more complex activities, although geographical distances (Mudambi et al., 2007). Reliable Internet connections and communication infrastructures are important pillars to the growth of new services and solutions for businesses to operate online. Not only collaborating with others, but also innovating and developing new services and products together with companies or subsidiaries in other locations, is becoming more common. This is where the notion of co-development and co-creation appears which we define as working together on complex activities and creating value and knowledge together. In this thesis, we will focus on what challenges the co-development faces in the creative industries, where we have performed a case study on a video game producer.

1.1 Problem discussion

Imagine how challenging it must be to have developers all around the world, working 24 hours a day across different time zones on the same product or service. What if someone builds something that another one disagrees with? How do they know exactly who is doing what? How are they able to communicate with each other when there are several languages, cultures and time zones involved? These are questions that we asked ourselves when we first heard about co-development. Although co-development is a form of collaboration that has existed for a long time, especially in more traditional industries like car manufacturing or pharmaceuticals, it is a relatively new phenomenon in the service industries and especially the creative industries. We do however believe that there are some differences in developing a product compared to a service, due to the intangibleness.

The different complexities on how products and services are put together or manufactured can be illustrated by looking at the construction industry and compare it with video game development. For example, building a house requires different components. These components could be produced in different parts of the world and

then be put together at one location in order to build the house. In this case building a house can be seen as a puzzle, where each part fit perfectly with the other.

Looking at the manufacturing of a video game, it can be considered to be more complex. A video game could be built at one site, which of course would make things easier, but common in this industry as in many others is that the production of the game is a co-development between different studios or companies. The reason for this is to make use of the knowledge and specialities that are not found in-house. Since developing a game is in fact, developing an intangible asset, it could be difficult to decide or know what the boundaries are for the development/production of the game. Developing a game is a complex process as there are no ready components to use as for building a house. It is a creative process where different studios will have to work across national borders with the challenge of having a unified view in the development. In the end the bits and pieces needs fit together into one unit, one game.

Another interesting aspect is the culture, since the video games are developed across national borders and are targeting players/customers all over the world. For example, the perception on how a castle should look like could differ depending on which country you come from.

We believe that this complex form of developing video games comes with both advantages and challenges that might be different from a traditional co-development or collaboration. Although co-developing is becoming more common, not much research on the field is to be found in the literature. There are some examples of co-development in some more traditional sectors as the pharmaceutical or the automotive industry (Chesbrough & Schwartz, 2007; Olson, 2015) but when it comes to services and the creative industries, we find a gap in the research.

1.2 Purpose & research question

The contribution of this thesis to the field of co-development in international business is to fill the gap and lack of research in the area of the creative industries. This will mainly be done by the development of a framework based on the current collaboration and co-development literature, using a qualitative methodology together with a case study from a video game producer with subsidiaries all over the world that have been co-developing games since many years.

The research question in this thesis is:

What are the organizational challenges when co-developing video games across national borders?

1.3 Limitations

In our thesis we have been working together closely with a company within the video game industry. As a courtesy to The Company, we have decided to keep the company anonymous. Hence, it is referred to as: The Company. Also, all the employees that we have met and interviewed remain anonymous in the thesis. We have as requested from The Company signed a Non- Disclosure- Agreement. Due to the aspect of anonymization and the NDA we are not able to tell or describe in detail The Company. Therefore sections, as background and information about The Company will be limited.

1.4 Company background

The Company that has been studied in this thesis is a world-leading actor within the video game industry. The Company has studios located all around the world. In this thesis two of the studios have been studied, that we will refer to as SUB1 and SUB2. SUB1 is a studio located in France and is a result of The Company's organic growth. The other studio is SUB2 is located in Sweden and was acquired by The Company through a cross-border acquisition a few years ago.

1.5 Disposition of thesis

The thesis consists of six chapters, which are the following: introduction, theoretical background, methodology, empirical findings, analysis and conclusion.

Introduction

In this first chapter of thesis, the reader will be provided a short introduction and background to the chosen topic of this thesis. The problem discussion highlights the complexity of the area and also provides the reader with an explanation on why the thesis has been dedicated to the chosen topic. Motivation is also given on why this thesis will bring novelty on the area. After this, a section follows with the purpose and research question of the thesis.

Theoretical background

In the second chapter, a literature review is performed and later a theoretical framework is presented that has been created by the authors.

Methodology

In the third chapter, it is described and justified how our thesis has been conducted. We motivate the methods and approaches that we have chosen to use in the thesis. It also explains how the empirical data has been collected and how it has been analysed.

Empirical findings

The fourth chapter presents the empirical findings of primary data that has been collected. The data was collected from a telephone interview, one-on-one interviews, focus groups, observations and an internal survey.

Analysis

In the fifth chapter the empirical data is analysed and discussed by applying the theoretical framework that has been introduced earlier in the thesis.

Conclusion

The last chapter of this thesis contains a conclusion of our findings, here we will also summarize and respond to the research question. Managerial implications and a suggestion for further research are also given at the end of this part.

2. Theoretical framework

In order to find out about the challenges for co-development we have made an extensive literature research and studied what other authors and researchers describes as key factors when it comes to co-development. Based on these key factors that we have identified as important we have built a conceptual framework that can be used to analyse both inter- and intra-firm cross-border co-development.

2.1 Definition of co-development

To get an idea of what co-development is, we find the explanation by Chesbrough and Schwartz (2007: 55) to be illustrating:

"Co-development partnerships are an increasingly effective means of innovating the business model to improve innovation effectiveness. These partnerships embody a mutual working relationship between two or more parties aimed at creating and delivering a new product, technology or service".

2.2 Literature selection

Two analogies or assumptions will be used between our theory and case study. The first one being that co-development faces similar challenges and key factors whether it is in regards to co-development inter- or intra-firm. In the literature we have seen a pattern of the same key factors whether it is intra-firm or inter-firm co-development. There are also researchers that support this view. Deck and Strom (2002) saw in their survey at Millennium Pharmaceuticals that the staff voiced the same concerns and issues on co-development whether it was in-house or with external partners. Therefore we find it relevant to include both types of literature in our theory. We are however aware of that there are differences. For example intellectual property and idea sharing can be more sensitive in the inter-firm relationship compared to intra-firm (Jisun, 2010). In the article "The effects of trust and shared vision on inward knowledge transfer in subsidiaries' intra- and inter-organizational relationships" (Li, 2005), the author concludes that trust is more important for inter-firm knowledge transfer, while shared vision is more important for intra-firm knowledge transfer. However, both shared vision and trust are important factors in both relationships.

Another aspect of this that we would like to mention is also the fact that in many cross-border M&As the subsidiaries continue to work as independent units, and might not see themselves as a very integrated part with the rest of the MNC (Harzing & Noorderhaven, 2006). This might mean that the relations with the other subsidiaries might share some of the same characteristics of which can be seen in inter-firm relations, which is another argument that supports the view of using both inter- and intra-firm research.

A second analogy that we will use between our theory and case is that there are similarities between the wider literature on co-development in R&D and new service development and the co-development of video games. We find that there are similar characteristics in the development of video games and new services and R&D because of the intangible nature of services and games, as well as the innovative process in R&D, which is connected to the innovative process in creating video games. This leads us to use literature and research from other industries than solely the video game industry when it comes to pointing out challenges and key factors in co-development.

2.3 Motives for co-development

Olson (2004), writes about motives of co-development when collaborating across boundaries. She argues that the primary reason for co-development in large companies is due to innovation and that companies cannot rely solely on in-house resources. Companies also enter into co-development as learning alliances. Lei and Slocum, (1992) states that partners hope to learn and acquire knowledge, technologies and products that are not otherwise available to their competitors. Other motives according to Chesbrough and Schwartz (2007) for entering into co-development is the possibility to enter new markets, reach increased profitability and reduce R&D expenses.

2.4 Success factors and challenges for co-development

Earley and Gibson (2001) are writing about elements that could be challenging for collaboration within multinational teams. They state a few points that could inhibit

collaboration; the competition for resources within the team, the different cultural backgrounds of the members, the development of a common culture, the shared understanding and meaning as well as working towards a shared goal. According to Olson (2004), the most common reasons for failure regarding multi-party collaborations are; integration of different management styles, lack of previous experience with partnering, lack of cultural sensitivity and lack of trust. Collaboration could also fail at execution-level, because of poor communication, inadequate trust, misaligned expectations and unclear responsibilities. Therefore setting a strategy for co-development and making sure to focus on the execution is of great importance for a good collaboration (Deck & Strom, 2002)

2.4.1 Trust

The discussion about trust and shared goals are the keywords we find most common in the literature of cross-border co-development. Research have suggested that trust and shared vision work as facilitators for knowledge transfer, value creation and resource exchange (Li, 2005). Furthermore, trust is according to many researchers a cornerstone for a successful co-development and a fundamental factor for cooperative relationships intra- and inter-organizations (Crespin-Mazet & Ghauri, 2007; Smith, Carroll & Ashford, 1995). It is also one of the most important factors for a good collaboration as it reduces uncertainty and eliminates the risk of opportunistic behaviour (Roberts, 2000; Uzzi, 1997; Nahapiet & Ghoshal, 1998). Gulati (1995) writes about the benefits of trusting relationships between partners and how these can work to reduce costs, such as contracts and other legal documents.

The literature that is examining the relationship between knowledge sharing and trust argues that trust represents the relational dimension of social capital, which facilitates the ability of sharing intellectual capital (Li, 2005). On the other hand the lack of trust can work as a boundary to relations and flow of knowledge, especially in hierarchical relations (Werr, Löwstedt & Blomberg, 2009). There are several definitions and models describing trust, we find the model "determinants of intra-firm trust in buyer-seller relations in the international travel trade" by Crotts and Turner (1999) (see Appendix 1) to give a an interesting view on the different types of trust and their determinants. In their model five types of trust have been identified, ranging from

trust connected to low commitment to high. The range, from low commitment to high, consist of; blind trust - based on lack of knowledge; Calculative trust - based on the economic incentives of staying or cheating in a relationship; Verifiable trust - based on the ability of the firm to verify the actions by the other firm; Earned trust - based on experimental basis; Reciprocal trust - based on the mutual trust between the partners, that is one partner trust the other because the other partner trust them. Each of these types of trust has different determinants, and if we look at the Reciprocal trust, which is the highest level of trust we find the determinants to be: Structural bond, Social bonds, Cooperation and Communication. We have decided to look further into Communication and Social bonds as we find these determinants common in the literature in discussing trust and collaboration. Social bonds are developed through social interaction, which tends to hold relationship together (Crotts & Turner, 1999). Kanter (1994) is in her article "Collaborative Advantage: The art of Alliances" discussing the importance of cross-organizational relations to create fruitful collaborations. Kanter presents five levels of integration that are essential for creating productive relationships. One of these levels is the interpersonal integration, which is about bringing people together to share information. She argues that the personal relation is important for collaboration as it helps resolve small conflicts before they escalate. Uzzi (1997) is writing about relations characterized by trust and suggests that they are more long-term compared to arm's-length trade deals, and giving the partners the security in knowing that they will not be taken advantaged of by the other part. He also explains how these relationships enable open communication, communications of tacit knowledge and knowledge transfer.

2.4.2 Shared vision

The importance of shared vision has been brought forward in the organizational cooperation literature. Crespin-Mazet and Ghauri (2007: 160) describes it: "The creation of a cooperative relationship between two parties relies on a minimum level of shared goals and expectations".

Many researchers in the field of organizational knowledge transfer emphasize the importance of relationships between units as the facilitator for value creation and knowledge transfer (Ghoshal & Barlett, 1988; Ghoshal, Korine, & Szulanski, 1994).

In the search for why and what properties of these relationships affect the knowledge transfer, researchers within the field of social capital has suggested that it is trust and shared vision that are important determinants for knowledge transfer (Tsai & Ghoshal, 1998; Yli-Renko, Autio, & Sapienza, 2001).

In an empirical study by Li (2005) on the impact of trust and shared vision on knowledge transfer, she found that both trust and shared vision are important factors for the knowledge transfer both inter- and intra-firm. She also argues that shared vision is more important for knowledge transfer intra-firm while trust plays a more significant role for knowledge transfer inter-firm. The reason behind her argument is that within a firm you generally already have a trust built and a subsidiary may see the headquarters as trustworthy in comparison to an external firm. Hence, trust would be more important in external relations. Li (2005) discusses the importance of shared vision intra-firm as essential to the global integration and coordination within the MNC. She argues that geographically dispersed units within the MNC can be a challenge to the knowledge transfer. The reason is that the organizational norms and work practices might differ between the national subsidiaries, which can lead to goal-disparity. A lack of shared vision can therefore be problematic to the internal knowledge transfer in an MNC.

Håkansson and Snehota (1995) also implies that the organizational culture has an influence on shared vision as it works to create an identity with its members that may lead to commitment to the organization and its goals. Other authors are also supporting this view, mentioning that the organizational culture has an impact on shared vision. Schein (2000) is for example in his definition of organizational culture describing it to be the deeper level of basic assumptions and beliefs that are shared by members of the organization, which can be seen as a connection between the shared vision and how it is impacted by the organizational culture. Ajmal and Koskinen (2008) are in their article "Knowledge Transfer in Project-Based Organizations: An Organizational Culture Perspective" supporting the relation between organizational culture and shared vision as well. They argue that understanding the culture of the organization is vital for running successful projects, and that organizations cannot be categorized into one particular culture since they contain a mixtures of several cultural patterns. They continue their argument by concluding that it is the shared

values and the unified vision that are vital in projects as they provide the focus and energy for knowledge creation. Therefore it can be argued that a coherent organizational culture can help create a shared vision between units.

2.4.3 Culture

Two cultural levels are often studied in the research: national and organizational culture. The national culture is suggested to be the base of the individual and Linton (1985) suggests that there is a link between personality and culture. Berger and Luckmann (1967) have shown that it is during the childhood that institutions such as family, educational system and church shape the individual. Organizational culture is said to correspond to a second socialization level in the individual's adult life (Berger & Luckmann, 1967). Based on this the conclusion to be drawn according to Stahl, Björkman and Vaara (2007) is that the national culture is more deeply rooted in the individual's mind. They also argue that cross-border M&As are more complicated as they require a 'double-layered' acculturation, where not only organizational culture, but also national culture needs to be integrated. Research also suggests that cultures do not exist independently, they are interconnected and therefore a multilevel perspective to culture could be used. Hence, it could be argued that there is a coexistence between culture on national, industrial, organizational and social level in organizations (Hofstede, 1982; Teerikangas & Very, 2006; Tung, 2007). This makes the line between what is organizational culture versus national culture hard to draw (Teerikangas & Very, 2006).

In the literature field of M&A the concept culture is often discussed. This due to that the differences in national cultures is often used as a reason for failure in terms of M&As (Buono & Bowditch, 1989; Weber, Shenkar & Raveh, 1996). As companies and their employees are often deeply embedded in their own national culture, feelings as stress, helplessness and confusion could evolve when they have to interact with another culture. Very et al. (1996) refers to this as "acculturative stress". Hence codevelopment within a country or cross-border could be challenging in terms of culture. As stated, literature argues that national culture could be a reason for failure in terms of M&As. Contradicting, is at the same time, that there is research which suggest that cross-border acquisitions performs better as the distance between the two

cultures increase (Schweiger & Goulet, 2000). Teerikangas and Very (2006) argues therefore for that the negative relationship that has been assumed to occur in terms of M&As and national culture does not hold, and reasons that the relationship culture-performance is more subtle and complex. Nevertheless researchers seem to be on accord on the fact that cultural differences have an impact on cross-border M&As and should be included in the decision-making and integration process of an M&A, although it is difficult to say beforehand what the impact will be (Teerikangas & Very, 2006). Research has also shown that it is the integration strategy chosen in the M&A that will affect the level of potential cultural clash (Bower, 2001). It is the level of integration that will decide the cultural clash, with a higher integration between the organizations meaning a higher risk of cultural clash (Davis, 1968; Schweiger & Weber, 1989). Integration can be defined accordingly to Pablo (1994: 806) as, "the making of changes in the functional activity arrangements, organizational structures and systems, and cultures of combining organizations to facilitate their consolidation into a functioning unit".

Haspeslagh, Jemison and Empson (1994) introduced three different strategies used in M&As, the symbiosis, absorption and preservation strategy. The symbiosis strategy refers to when changes are made to management, practices and structures based on best practice from both organizations. The absorption strategy refers to when the acquired firm is completely merged into the buying firm's organization. Both of these strategies imply a high level of integration and thereby a higher risk of cultural clash. In the preservation strategy the acquired firm will retain their autonomy and cultural clashes are therefore less likely to occur. This preservation view is also supported by other researchers arguing that the post-acquisition integration will be more successful if integration is limited, this since the acquired company can choose which country specific practices they would like to adopt from the acquirer without being forced to implement all of them (Arjen & Slangen, 2006). The managerial suggestion that Arjen and Slangen (2006) suggest is therefore that managers should not impose their firm's culture and practices on the acquired firm if they want to benefit from the cultural differences between the two firms. They should instead leave them to choose the practices they find attractive and useful.

In a study by Khoja (2010) on how strong organizational culture facilitates strong intra-firm networks it is suggested that the organizational culture instills the values, norms and believes within an organization that helps create strong intra-firm networks. It also suggests that this relation is mediated by practices of open communication, such as face-to-face meetings, and individual and collective rewards. Strong intra-firm networks also encourage knowledge sharing and the development of new knowledge between units (Khoja & Maranville, 2009; Tsai & Ghoshal, 1998). Ajmal and Koskinen (2008) are also arguing for how organizational culture is supporting the knowledge transfer within organizations. Alike Khoja, they also believe that communication, more specifically the informal communication, as in social interaction, is central to the knowledge-transfer process.

2.5 The conceptual framework

In our literature research we have identified three key words that are commonly referred to in the collaboration and co-development literature. These keywords have been used as a fundament to create our theoretical framework, as they seem to be the main ingredients for creating a successful co-development recipe.

Trust is probably the most important factor when it comes to co-development. The level of trust is developed in relationships between human beings and organizations and represents the relational dimension of social capital. Both trust and shared vision is working as facilitators for knowledge transfer within the organization (Li, 2005). The knowledge sharing will increase as trusting and having a personal relation will increase the open communication. The increased communication will in turn lead to more quickly detecting and jointly solving problems, and also allow tacit knowledge to be transmitted as it requires more interaction.

Shared vision is important in order to pull in the same direction. It is also identified as an important determinant for knowledge transfer according to Tsai and Ghoshal (1998), which is also supported by the empirical study made by Li (2005). Li also stresses the challenges of keeping a shared vision between geographically dispersed units, due to the potential differences in national work practices. A link between organizational culture and shared vision has also been identified in the literature by

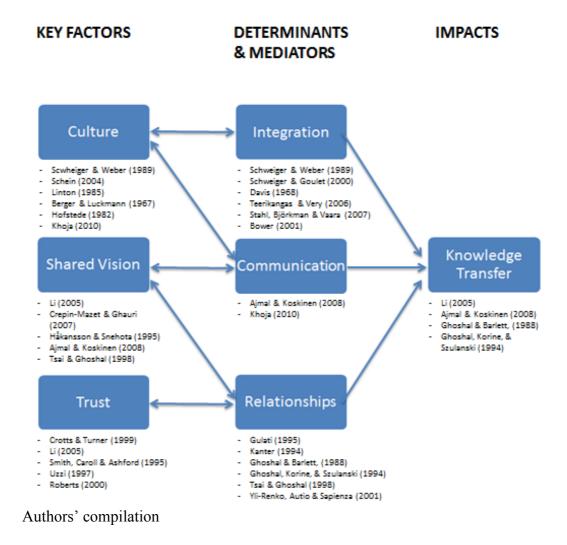
Håkansson and Snehota (1995). The organizational culture is an important transmitter of company values and goals onto their employees. Not having an organizational culture could affect the commitment and sense of belonging to the organization. This means that the employees may not share the same visions and values, which make it hard to work together towards a common goal. It is through the communication of the goals and values that firms can create a global coordination and integration.

What determines the cultural clash between two companies depends to some extent on how much the companies are integrated to each other. According to Davis (1968), Schweiger and Weber (1989) a high level of integration means a higher potential for cultural clash. This since a high integration between two different companies means that both parts needs to adapt and possibly change their practices. This makes the possibility for clashes due to different opinions that could be based on their cultural background more likely to appear. With a lower integration the companies would be able to keep more of their own practices, which would make it less likely to clash with the culture of the counterpart. Culture is important for creating strong intra-firm networks. The culture in the organization is the shared perception of values and practices and we believe that it is mediated throughout the organization through an open communication, which enhances the personal relations and face-to-face meetings. This in turn results in strong intra-firm networks and facilitates the knowledge sharing in the organization.

2.6 Explanation of the conceptual framework

In the framework (Figure 1) we have identified the keywords that we find as the fundamentals for collaboration and co-development based on our review of selected literature and research. We have then tried to identify what the determinants and mediators to these key factors are, i.e. what factors that determine the key factors and also what they impact.

Figure 1: Conceptual framework for co-development



2.6.1 Key factors

The three key factors; Trust, Shared vision and Culture are the fundamentals to collaboration that we have identified in the literature. In our framework they will be acting as the key elements that are needed for a successful co-development and collaboration within an organization. The relation between the key factors and the determinants and mediators is a two-way relation, which is indicated by the double-pointing arrows. This implies that the mediators affect the key factors, and the key factors will also affect the mediators. All factors mentioned in our framework could be connected to each other in some way. We have however focused on the connections that were identified in the literature to have the strongest relationships.

2.6.2 Determinants & Mediators

The key factors are decided and formed by the determinants and mediators. For example the key trust is decided by relationships, i.e. depending on the type of relationships you have, this will set the level and type of trust within the organization. The determinants and mediators are also connected with a one-way arrow pointing to knowledge transfer. This relation implies that these mediators and determinants will affect the level of knowledge transfer in the organization.

2.6.3 Impacts

Impacts, refers to what the determinants and mediators will affect in the organization. All of the determinants: communication, relations and integration will strongly influence the knowledge transfer in the organization. Knowledge transfer is therefore to be seen as the result of the framework. We also argue for that knowledge transfer is what co-development itself is about, and how closely connected the two terms co-development and knowledge transfer are. We believe that without the knowledge transfer, the co-development would not exist. Exchange of information between and within organizations is vital for co-development and the development of new knowledge and innovation

3. Methodology

The intention with the methodology is to give the reader an account and understanding of the thesis scientific approach and research method. It provides the reader with an understanding on how the collection of the empirical data has been conducted. An ethical section is also included, discussing four requirements that need to be considered when performing research. Furthermore, it is also presented how the empirical data has been analysed.

3.1 Qualitative approach

To be able to review and analyse the co-development between the two studios a qualitative research approach has been used. Qualitative research is most commonly described as the opposite of quantitative research (Eriksson & Kovalainen, 2008). A Qualitative approach focuses in depth on the interpretation and understanding, answering to questions such as 'how' and 'why' (Bryman & Bell, 2015; Marschan-Piekkari & Welch, 2004). Since we will conduct a study on an area which can be seen as more complex, and that cannot entirely be answered with numbers and percentages, we find it suitable to use qualitative methods as our main method, which is also supported by Eriksson and Kovalainen (2008). However, to support the qualitative data we have also included a quantitative study in our empirical data. This in form of a survey that was compiled and analysed by The Company and later sent to us.

3.2 Data collection method

After a visit at The Company with our university class in November 2015, we thought it would be interesting to make a study that was comparing or evaluating the cooperation between the two studios in Sweden and France. We got in touch with the studio manager in order to discuss the subject that we wanted to write about. It turned out that there was an on-going internal post mortem project that evaluated the corporation between four of their studios located in different countries. The studio manager provided us the contact details for the person in charge of this project, which gave us the opportunity to get access to more material for our data collection. We decided to do our own data collection and structure in order to assure the validity of

the empirical data. However, we did take part in two focus group interviews organized by the company, and we also received the results of a study performed by The Company, which was used as a support to our own empirical findings.

To be able to access reliable primary sources for this thesis, we decided it would be useful to visit The Company and to be on-site. The possibility to be on-site at The Company has provided us with the opportunity to gain knowledge about the industry and how they work on a daily basis. It has also given us the chance to perform one-on-one and focus groups interviews. Furthermore, it has been valuable to be in the middle of 'the buzz' as it enabled us to do observations and get to learn about the company culture. We were on-site at The Company's location SUB2 for one day, and at another of The Company's sites SUB1 for two weeks.

3.2.1 Focus groups

The Company has an internal 'post-mortem' project that is currently running. This project is run by one employee at The Company with the aim to evaluate the codevelopment of a video game between four different studios within The Company. This is done by collecting opinions through surveys, focus groups- and one-on-one interviews. We had the opportunity to meet up with the person responsible for the post-mortem project and to participate and collect data during two focus group interviews (6 employees in each group) at SUB2. The method that was used by the employee in charge of the internal post mortem project, was to provide each attendee with a pen and post-it notes. The attendees (chosen by a manager at SUB2) got two questions (please see the interview guide in appendix 2) and then they got a few minutes to think and write down their answers. Later the host let everyone speak freely and everybody shared what they had written on their post-its.

This type of data collection method, was used in order to collect a large amount of qualitative data given limited time and resources. According to Bryman and Bell (2013) this type of data collection method has several benefits. Compared with one-on-one interviews, this approach allows the participants to explore other participant's opinions, which can lead to interesting discussions and creative solutions to problems. Focus groups encourage the important topics and opinions to be treated, since the

moderator leaves the control to the participants. Also, the participants in a focus group tend to argue more on what their opinions are, not as in an one-on-one interview which could be of more interrogating character. Arguing for their opinions leaves the moderator with a deeper and more realistic view on what people think. On the other hand focus group interviews could also be uncomfortable to some members, due to aspects as group dynamic and other present participants. We agree with Bryman and Bell, that this type data collection indeed has many benefits. It enabled us to retain a large amount of data containing many different opinions. To compare, it would have been much more time consuming to perform one-on-one interviews to obtain the same amount of data. Also, it enabled us to hear different views of challenges and positive aspects, which led to interesting discussions.

3.2.2 One-on-one interviews

Since we participated in the focus groups arranged within the 'post-mortem' project at SUB2, it would have been suitable for us to be able to participate at corresponding focus group interviews at the SUB1 office as well. Due to practical reasons such as planning and the geographical distance to SUB1, we were not able to participate. We therefore decided that we wanted to create our own focus groups at SUB1 as we could then have compared the focus groups as they were peer-to-peer. Due to the busy schedule of the employees there was no possibility to gather everyone at same time for a focus group interview, which is also one of the difficulties when organizing focus group interviews according to Bryman and Bell (2013). The solution to be able to obtain data was to organize one-on-one semi-structured interviews. One project manager at SUB1 sent out an email to several employees that he found would be interesting for us to meet. Five employees reported their interest back to him. The project manager then helped us to schedule 30 minutes one-on-one interviews and booked conference rooms. Please see Appendix 2 for the interview guide.

The main advantage of semi-structured interviews is according Bryman and Bell (2013) that it helps the researcher to gain a deeper understanding. For our study it has enabled us to gain a deeper understanding of the co-development, this since it was more exploratory due to that the respondents were able to speak more freely and could get more time to share their opinions and experiences. By doing one-on-one

interviews we were also able to get opinions from employees or key persons that did not participate in focus groups for different reasons. Also, it enabled us to interview managers from both the studios and thereby we gained a managerial perspective on how the co-development works between the two studios.

3.2.3 Phone interview

To be able to get a second view on the co-development on a managerial level (one interview was made face-to-face with a manager on-site at SUB1), we decided to supplement our data collection via a phone interview with a manager at SUB2.

However, we believe it is better to meet face-to-face when performing interviews. This since the relation developed when meeting face-to-face can create a trust between the interviewer and the interviewee, which can result in the sharing of more detailed or sensitive data. Furthermore, we experienced some technical issues with the telephone and had difficulties to hear the interviewee well, which in our opinion lowered the quality of the interview, as we could not interpret everything that was said. Also, due to the lack of physical presence, not being able to see each other and the technical issues, we got an impression that we did not bond. We think this resulted in a lack of trust for the authors, which did not encourage the interviewee to provide us with detailed or deeper information on the co-development. Regrettably, we are not able to make any drastic conclusions on this interview.

If we were to perform a telephone interview again in the future, we would perform the interview using a communication tool with a video function where the counterparts could see each other. This would help to build trust between the interviewer and the respondent since it would be easier to bond.

3.2.4 Survey

As a part of the on-going post-mortem project at The Company, a survey was designed and sent out the 18th of March 2016, to all the employees involved in the co-development. This survey was both complied and analysed by The Company and the results were later sent to us. The reason of this survey was for The Company to obtain quantitative data on how the collaboration has worked out between the offices that has been involved in the co-development of a specific video game. Since our

thesis and the post-mortem project treat the same topics, we found it useful to include parts of the survey in order to get a broader scope on the co-development. Since the survey was created and analysed by The Company, we are not able to assure the quality and reliability. However, we consider the results of the survey to be trustworthy. As already stated in limitations, the questions in the survey are confidential and can therefore not be presented.

The survey was sent to 330 employees, 80 at the SUB1 and 250 at SUB2. In total 131 responded to the survey, 18 from SUB1 and 113 from SUB2. This gives a response rate of 22.5% for SUB1 and 45.2% for SUB2. This can be seen as a rather low response rate as according to Mangione (1995) a response rate below 50% is unacceptable. The employee, responsible for the survey and the post-mortem project at The Company explained us the low response rates to be due to that the survey was sent to all of the employees, regardless of their involvement in the co-development, as this was not known. This led to that only the persons involved in the co-development responded to the survey. Given the low response rate, the survey results can be viewed as more illustrative than definitive and will mainly be used as a support to our qualitative data.

3.2.5 Observations

Being at SUB1 for two weeks in the middle of the 'buzz' allowed us to make several observations. The observations we made during our stay were noted down in a document as soon as possible after the observation. This allowed us to obtain further empirical support to our one-on-one interviews and also to obtain opinions from employees not participating in any interviews.

3.3 Data analysis method

This section aims to explain to the reader how the analysis of the collected empirical data has been conducted. It also provides the reader with an understanding of the ethical research requirements that has been followed when writing this thesis.

3.3.1 Case study

When choosing suitable qualitative research method, we decided to pursue with a case study. A case study allows the researcher to explore a phenomenon, using various methods to obtain in-depth knowledge (Collis & Hussey, 2014). Yin (2011) defines that a case study is an empirical inquiry, which investigates a contemporary phenomenon in a real-life context in depth, which also relies on multiple sources, which needs to be triangulated. Also, a case study emphasises production of holistic knowledge, by analysing multiple empirical sources. Hence, it also seeks to make room for diversity and complexity, therefore simple research designs are avoided (Eriksson & Kovalainen, 2008). We find this methodology very suitable for this thesis, since it corresponds well with the complexity of collaborating cross-border with an intangible product.

Before the collection of the empirical data, a literature review was performed and a theoretical framework created by the authors. After analysing the collected empirical data, new findings were discovered that was not covered by the initial framework. Therefore a revised framework has been developed in the analysis. This thesis follows in terms of reasoning an abductive approach (Saunders et al. 2009).

3.3.2 Primary data analysis

All one-on-one interviews and the phone interview lasted for 30 minutes and were recorded. The recording made it possible to transcribe the interviews so that we were able to examine them and increase the transferability of the study (Bryman & Bell, 2003). The focus group interviews were not recorded, however we had the possibility to take notes continuously.

Common for all type of data we have collected is the way it has been treated after collection. Promptly after we had transcribed the data, we went through the data compared it with our notes (and between each other) to make sure we had a mutual understanding and interpretation of the data. Later we reviewed the text, to categorize it. For example if one employee mentioned: "Everyone needs to be on the same page" we would then, in its right context identify that this opinion is linked to 'communication'. By doing this, we were able categorize the data.

When it comes to analysing the interviews we experienced a difference in terms of quality of the one-on-one interviews, which we consider to be related to the employees varying language skills. Those who we interviewed that had an excellent level of English could provide us with very detailed and plentiful information. While others, without a high level of English, had more difficulties to retell in detail their opinions. Since most of our interviews were performed in English, which was for the majority of the interviewees a non-native language it supports Tsang (1998) research on that it is important to communicate in the respondent's language, this since it allows the respondents to fully express themselves. We can therefore conclude that it could be preferable (if possible) to perform interviews on the interviewed person's mother tongue to assure the quality of the data.

3.3.3 Triangulation

The method of triangulation implies that different methods of data collection are being used to study an empirical phenomenon. This will give a deeper insight that will enhance the validity of the data (Modell, 2009). The multi-method approach was done by first conducting a qualitative study, with one-on-one interviews, focus groups and observations, and then later supported by results from a quantitative study. We believe this will increase the validity of the empirical results as it enables us to cover a wider population and to crosscheck whether we get the same results from the interviews.

3.3.4 Ethical statement

We have during our research followed the guidelines concerning ethical research principles that have been provided by Gothenburg University and Vetenskapsrådet. The report "Forskningsetiska principer inom humanistisk-samhällsvetenskaplig forskning" states that research should be performed according to four requirements; information-, consent-, confidentiality- and use. We have during our research informed all the employees concerned on the topic of the thesis. When we were at SUB1, we walked through the office in order to present our research topic and ourselves. This enabled the employees at the site to know why we were there and what we were doing. At this site we performed one-on-one interviews and all of the

respondents that we interviewed volunteered to talk to us. Before they volunteered they were informed and knew about the topic of the thesis and also that the collected material was only to be used in the thesis, which fulfil the requirements of information, consent and use.

In terms of confidentiality, The Company requested us to sign a NDA, which meant that we early decided that The Company should remain anonymous throughout the thesis, it therefore felt natural to also keep all the employees and respondents anonymous as well. All the respondents were informed prior to their participation that the information they shared would be anonymous.

The empirical data has been validated by two respondents, this to assure that we have understood and interpret the information correctly. The purpose of the validation was to strengthen the validity of the thesis.

4. Empirical findings

The main themes that we have identified from the data collected in the focus group interviews, one-on-one interviews, observations and survey are presented below. The empirical data has been divided in two parts. First, aspects that has been perceived as positive in the co-development and secondly areas that has been considered to be challenges and/or needs to be improved in regards of the co-development. The reason behind this structure is that it follows the same pattern on how the data has been collected.

Table 1: Overview of respondents and interviews

				Interview	Interview		
Respondent:	Position:	Nationality:	Interview method:	held:	language:	Location:	Duration:
SMSUB1	Studio Manager	Swedish	One-on-one Recorder used	20/04/2016	Swedish	SUB1	1 hour
PSUB2	Producer	Swedish	Phone interview Recorder used	28/04/2016	Swedish	-	30 min
EM1A	Game Director	American	One-on-one Recorder used	25/04/2016	English	SUB1	30 min

EM2A	Assistant Producer	Spanish	One-on-one Recorder used	25/04/2016	English	SUB1	30 min
EM3A	Creative Director	French	One-on-one Recorder used	25/04/2016	English	SUB1	30 min
EM4A	Assistant Producer	French	One-on-one Recorder used	25/04/2016	English	SUB1	30 min
EM5A	Lead Game Designer	French	One-on-one Recorder used	25/04/2016	English	SUB1	30 min
Focus Group 1	6 employees SUB2	-	Focus group	15/03/2016	English	SUB2	2 hours
Focus Group 2	6 employees SUB2	-	Focus group	15/03/2016	English	SUB2	2 hours

Authors' compilation

4.1 Focus group interviews with SUB2

A total of two focus group interviews were conducted at SUB2. Each focus group consisted of six employees.

4.1.1 Positive aspects on co-development

Trust, relations and communication

Trust and relations were two frequently occurring words during the focus group interviews in terms of positive aspects on co-development. It was during the meetings that personal relations and trust were built. It was especially the fact that meeting with your peers in real life, during workshops and visiting and working from each other's offices that was seen as a very positive influence on the co-development work between the studios. One employee mentioned that the on-site workshops were crucial and described how this lead to that everyone in the project was on the same page and knew what was going to happen. He also described that it was during the workshops that things started taking form. Another employee explains that the good relation with the other studios led to a very clear ownership where the parties stated what they were good at or not so good at, and could reveal their competencies and characteristics. According to the employee, revealing your strong and weak sides

created a level of trust and enabled a better and closer communication: "Very early we talked and had the uncomfortable questions that later was good for defining the mandate".

At SUB2 they often mentioned three key words to describe what they stand for trust, craftsmen's, and friendliness. They enhanced the importance of building relations by communication, such as dropping a line to your colleague asking how they are doing. They also said that the trust is good in order to know that "if another studio says they are going to do something, you know they will do it". Furthermore it was mentioned in terms of communication that they were satisfied with the fast email replies and that they strive not to block each other in work.

Knowledge transfer

Another positive aspect on the co-development between the studios was the access to expertise and knowledge that was not found in-house. One employee explained that it was very good in order to capitalize on local expertize and described how one studio that was working on the game turned out to be very skilled in the creation of weapons and US uniforms. Another employee describes how having the mobility to go to other studios and having other studios coming here was a good way to share experiences and describes that it was sometimes done for educational purposes or to staff each other when workload was heavy. They also talked about how they have been able to leverage on each other's differences, one example they gave was that SUB2 is a smaller studio and with less rigorous processes, compared to the others studios who do more documentation and are more hierarchical. These differences have enabled SUB2 to keep their creativity but at the same time become more structured thanks to the other studios.

Shared vision

One employee mentions that it is a positive thing that the studios share the same mind-set and motivation, and claims that ownership is an important driver to this. "It's our game, if it works terrible it won't be good for anyone, it's about the shared investment"

4.1.2 Areas of improvement for co-development

Structure, processes, communication and knowledge transfer

Documentation, processes and planning were some areas that the employees thought needed to be improved. In regards to documents from SUB1 there could sometimes be French names included and another type of numbering. One employee explains: "We didn't have time to stop and create a process for how to work with this". He also explained that they had the same problems with another studio, which was solved by informing the other studio on how they would like them to deliver information. With SUB1 however they found it hard to find the right person that was responsible and could make decisions. They also found it hard to give feedback to SUB1, like telling them that they had to change direction or that the content was not right. They also suggested that documentation needed to get better, as they considered it very important in co-development since it needs to be transparent because of the many studios involved. One employee suggested having a person present to take notes on all the meetings and update a wiki (internal information source), or have a technical writer that take ownership over the project documentation, as he insisted "we can't have it in email chains". A structure for how to work on a certain mandate or task was also wanted by the employees, this was something being said in regards to the work on the new tool, the engine, "My director was in SUB1 and we never found a process or forum for how work should be spread. If it was only us here at SUB2 we could solve it but now it is four studios involved and we need a forum or a structure". A forum or a structural support for communication and sharing information was also requested, somewhere where overall plans on what different projects teams are working on and information could be shared.

Decisions and ownership

Decision making, communication of decisions and knowing who could take decisions seemed to be an areas that needed to be improved according to the employees: "...once a decision was taken, it was often not communicated. And when a decision was finally taken, it was often too late in production, which affects the quality of the game". Another employee also stated that directors need to be more open and that decisions have been made behind locked doors. Grey areas as in knowing "who own what" was also common to occur. As an example they mentioned the development

sharing of an in-game asset, where the two offices did not know to what extent they were responsible for the creation. Giving complete ownership was suggested as a solution to this problem.

Culture

Differences between the two studios were mentioned in terms of the organizational structure. SUB2 is a flatter organization compared to the other studios, which are more hierarchical: "Here at SUB2 you can talk to anyone, seniors, juniors, managers but in other studios there's a hierarchy that you have to respect, with multiple-levels of approval". The differences in hierarchy was sometimes considered to be a problem, especially mentioning that other studios did not always respect the juniors. An example that was mentioned was an email sent from a junior at SUB2 to SUB1, and the reply from SUB1 was later returned to a senior at SUB2, instead of the junior.

4.2 One-on-one interviews SUB1

Below is a summary with the main areas mentioned in the five one-on-one interviews conducted with employees at SUB1. Two broader questions were asked, please see the interview guide in the appendix.

4.2.1 Positive aspects on co-development

Trust and ownership

Coming back in most of the interviews is that SUB2 made SUB1 feel very inclusive in the project and gave them a lot of responsibility and freedom in their work. SUB2 were described to be open and trusting which was shown by their willingness to let SUB1 try their own things and success or fail. The autonomy and freedom given was also perceived as empowering, EM4A says "...it was also empowering - they trust me and I am going to give the best", but EM4A also continues and explains that there needs to be a balance between controlling and giving freedom, implying that it is also important that SUB2 reviews their work and controls that it is within the defined budget and scope. This is once again supported by EM2A who explains:

"One of the things that worked best is the way SUB2 has handled the whole co-dev idea. Instead of just acting like we are the lead studio and you are basically the outsourced guys. I feel like they really did an effort to make it very inclusive and to give quite a bit of ownership of what we were doing and freedom in terms of how we had to do our mission. They were not handholding us. They didn't say you have to do this, instead, we expect you to deliver this. Which was really good but came with a price."

The price that EM2A was referring to was that the autonomy and to our understanding, lack of communication and feedback from SUB2 to SUB1, made them work for too long in their own space, without being sure that they were moving in the right direction.

Relations

All the respondents mentioned the importance of meeting face-to-face. According to EM1A it is especially important in the beginning of the collaboration, in order talk about what the vision is and what the expectations are and just to get to know each other. EM4A said that meeting face-to-face is beneficial since it improves the communication when getting a face on the person behind the screen. It was also found necessary to sometimes meet in real life, as some things were too complicated to talk about other than in person.

"When you meet people face-to-face, it is easier for distance communication afterwards. Because you know, he is a human, he is a collaborative guy, he wants things to happen correctly, he does not think for his own interest. You could always think that people are not as collaborative or friendly as they are. When you receive an email you can interpret it differently, If you have not face-to-face, you can interpret it as he is not a cool guy, but he did not have any bad intentions, he just had little time" (EM4A).

The importance of the personal relations is also something we found people mentioning a lot as a key factor to a successful co-development during our observations. "The most important thing for co-development is the personal relations, the human contact, and meeting face-to-face. All the processes and tools are nothing if you don't have this relation" (observation). The personal relation was said to be important in order to resolve conflicts and avoid misinterpretations. When you knew the human being behind the screen, the conversation could be more straightforward,

as they felt like they were just not talking to a screen. Three of the respondents mentioned that SUB2 had a good attitude towards the co-development, which according to the respondents has been a key in the successful co-development.

Communication

There was a good accessibility on the peer-to-peer level, as it was relatively easy to get in touch with specific persons. The communication tool Lync was appreciated as well as the use of webcams. When complex issues appeared weekly meetings were set up in order to handle them. Since it was a total of four studios involved in the co-development, where all of them were dependent on each other's work, it proved to be a good thing to set up these weekly meetings. The fact that the studios were in the same time zone was also mentioned as a positive aspect in terms of the communication.

Culture

Two employees mentioned that there were cultural differences in terms of the organization between the studios. SUB2 was explained to be a more flat organization, which wanted to have all the studios as equals and on the same level. They got the feeling that the game they were producing was the game of the collaboration, and not just of SUB2.

A cultural understanding of each other was also argued as a good thing to in order to avoid frustration due to cultural differences.

"...Just small things like French people are typically late to meetings and Swedish people are typically punctual... it is not a big deal according to the French person but to a Swedish person or an American it could be seen as rude (referring to when French people come late to meetings). So just understanding those little differences was really helpful, to have those little conversations so we didn't get frustrated with each other based on cultural differences" (EM1A).

4.2.2 Areas of improvement for co-development

Processes and organization

As areas for the improvement of the co-development the respondents mentioned three main themes, namely: decision-making, validation and review process. These three processes seem to be related to each other. The review process refers to SUB2, reviewing the work that SUB1 has created. According to SUB1, this needs to be done more regularly so that they know that they are moving in the right direction.

Another problem mentioned was the meetings where they decide to validate or not the specifications of new features, a so-called FSO (feature sign-off). During these meetings a problem seemed to be that not all directors have been able to participate. "...in this meeting two directors couldn't make it, but we got all the other directors. The meeting went very well, and we all agreed to validate the FSO (game feature sign-off). It appears that 30 min after the meeting was done and when I sent the formal validation I received a reply from one of the (absent) directors, that we don't want this feature. The problem was that the directors didn't speak to each other so how can they make decisions?" (EM5A).

EM5A thought the problem with the decision-making could be due to SUB2 having too many directors and mentioned that it was very hard to get unified feedback from them. One respondent proposed as a solution that directors who do not participate during the meetings should not have the right to invalidate the decisions.

Something that caused frustration during the co-development was also the frequent changes in the leadership positions at SUB2. This caused problems like previously validated documentation needed to go through the validation process again. It also costs in terms of time in catching the new directors up on what had been decided previously and also in terms of building new rapport and collaboration relations.

Another issue related to processes was the use of multiple tracking systems (system that track tasks and deadlines). The problem here was that studios updated their own tools and then forgot to update the common tool used between the studios. This led to the other studio not being updated with the latest information.

A technical challenge that was mentioned in terms of the co-development was the interaction of systems and how changes made to the system by one studio could affect other studios using the same system. This could according to EM2A be solved by communication, like informing and asking the other studios in order to find out the potential impact before making a change to the system. Apparently it is hard to predict what impact certain changes would have, but at least it would cost less frustration between the studios if this was communicated before.

From the observations at SUB1 we also found a challenge in the co-development with SUB2 to be their initial poor documentation. This refers to the time before the reorganization at SUB2. One employee mentioned that there were no guidelines or structure to their documentation and that important documentation could sometimes be found in someone's personal folder on the computer.

Shared vision

Several of the employees mentioned that, at the beginning of the co-development with SUB2, there was a lack of a clear creative vision. This got better after an internal reorganization, when the roles were more clearly defined at SUB2. Despite the improvements, the problem still existed, as EM2A explains:

"We felt like there was an unclear vision at some point. So basically that, when we got the go from the directors this is what you have to do the objective was not clear. So in the beginning we went in a very radically opposite direction because there was not a clear understanding of what the goal was. And I felt that towards the end of the project we still had this issue."

EM1A explains that one of the problems was that the information from meetings at SUB2 was not properly communicated to SUB1, it just trickled its way down to them. It would according to EM1A be preferred if SUB2 could visit each studio involved in the co-development to have the same discussion about the vision as this would make the studios aligned and better understand the expectations.

Communication, feedback

As mentioned in the positive aspects, the autonomy and freedom given to SUB1 was much appreciated, but as some respondents expressed, this also came with a price. The price they referred to was the lack of control of that the work they conducted

corresponded to the overall vision of the game. They could sometimes feel isolated in their space not knowing if they were moving in the right direction. This could be improved by having more regular meetings with feedback from the directors. "On one hand it is really good to have that responsibility but on the other hand the responsibility of that ownership needs to come with much more communication. So that if they ask for a blue sphere, we don't end up with a brown cube" (EM2A).

Another issue related to communication that was brought up was too much formal email- conversations and loops circulating back and forth, here the telephone was mentioned as a tool to avoid this. "The moment you hit more than three email you should grab your phone and have a call and clear things out, because it's much faster" (EM2A).

4.3 Management perspective of the co-development

A face-to-face interview with the studio manager (SMSUB1) at location SUB1 and a phone interview with a producer (PSUB2) at location SUB2, has been performed in order to get a management perspective on the co-development.

4.3.1 Positive aspects on co-development

Knowledge transfer

SMSUB1 described that a key learning from the co-development with SUB2 was the new engine that they introduced in the development process, which allowed them to become more productive. SUB2 have also been very proactive in teaching SUB1 how to use the new technology (the engine) by on-site presentations. The co-development has also allowed SUB1 to use their specific expertise in the development process, which has resulted in new knowledge creation in the teams. The manager also mentioned how SUB2 came to SUB1 to present the brand explaining the game and what it should look like.

According to PSUB2 the main advantage of the co-development was being able to take advantage of the in-house expertise at The Company instead of buying it externally.

Ownership

In the co-development with SUB2 the SMSUB1 described that SUB1 have felt an ownership and participation in the creation of the game. SUB2 have been very good at making them feel as creators of the game, compared to previous co-development partners. For example SUB2 invited them to the release fair saying that "you are also the creators of the game so of course you should be there to show the game" (SMSUB1, our translation). SUB1 was also often being mentioned in their press releases as co-creators of the game, which made them feel a strong participation and ownership.

Trust, communication and culture

SMSUB1 described that the initial trust between the two studios comes from the fact that the two managers speak the same language and share the same nationality. The connection that the managers have from sharing the same nationality as well as being in the same time zone has been important for the collaboration. For example SMSUB1 explained that cultural clashes between the two studio managers and their respective studios have been avoided since SMSUB1 have been able to inform SMSUB2 about the French culture and how they work in the French studio.

4.3.2 Areas of improvement for co-development

Organizational practices and decision-making

The organizational differences between the two studios have been the biggest challenge to handle. SMSUB1 described SUB2 as a very flat organization without decision-makers, whilst SUB1 is a more structured organization, used to working with launching games on a yearly basis, and coming from a very industrialized way of working in their previous co-development project with another studio. At SUB2 there was no clear chain of command and they were afraid of conflicts and taking hard decisions "if someone did a bad job they didn't have the courage to put that person on

another task or tell the person that you are doing a bad job this is how you have to do" (SMSUB1, our translation). SMSUB1 described that it was a big change starting working with SUB2, as they had a very different organization. This was also noticed by The Company, which after an organized visit gave a recommendation to SUB2 for a re-organization. According to SMSUB1, SUB2 was being very cooperative and open to making these changes, as they realized that it was needed.

Shared vision and communication

According to PSUB2 one of the biggest challenges that always re-occur in codevelopment is the communication. Notably it is the distance that inhibits some of the daily communication. PSUB2 gave an example, that if someone at SUB2 has a question or missed out on information it is just to go over to your colleague's desk, or have a coffee in the kitchen to catch up. While the employees at SUB1 could feel that they sometimes lacked the shared vision, as they are not able receive information the same way as when you are located in the same office.

4.4 Survey results for SUB1 and SUB2

The survey compiled by The Company was sent to employees at both locations. As already mentioned, this survey will only be used as a support to our qualitative data, since it has not been conducted and analysed by the authors. The survey contained around twenty questions, out of which five questions have been selected as relevant empirical data for the thesis. The survey compiled by The Company was sent to employees at both locations. The survey contained around twenty questions, out of which five questions have been selected as relevant empirical data for the thesis. The questions of the survey were designed in different ways. In question one, a scale ranging from 1 to 5 was presented, while the other questions had different response alternatives to choose from.

Q1. Rating of the collaboration

The first question that we could use in our thesis concerns an overall rating on the collaboration between the two studios. Here the employee could indicate on a scale from 1 to 5, how good the collaboration was. (1 = Not satisfied at all, 5 = totally)

satisfied). The mean value from SUB1 on their view of the co-development was 3.75 while the mean value from SUB2 was 3.27.

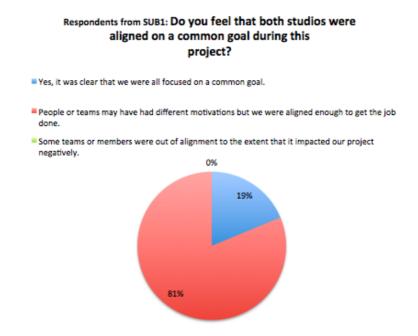
Q2. Information sharing between studios

Secondly, the respondents were asked if they were shared the information they needed from their counterpart in the co-development. 62.5% of the respondents at SUB1 felt that they got all or a large part of the information they needed from the studio SUB2. The corresponding figure was 72.73% for SUB2.

Q3. Common goal and alignment

Below are the results from the question regarding if they felt that both studios were aligned on a common goal during the project.

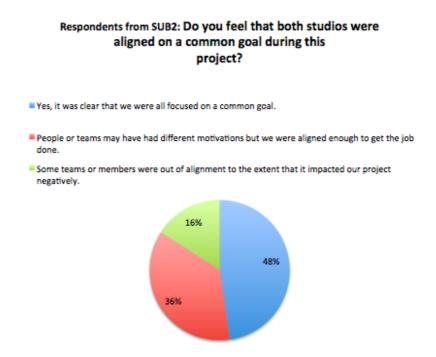
Figure 2: SUB1s survey answers on Q3, the view on common goal and alignment



Authors' compilation

According to the respondents at SUB1, 19% thought that they were all focused towards a common goal. 81% of the respondents felt that teams have different motivations but were aligned enough to get the job done.

Figure 3: SUB2s survey answers on Q3, the view on common goal and alignment



Authors' compilation

At SUB2, 48% felt that it was clear and that they were all focused towards a common goal. Meanwhile, 36% of the people or teams have different motivations but were aligned enough to get job done. 16% answered that some teams or members were out of alignment to the extent that it impacted the project negatively.

Q4. Trust

The fourth question concerns trust, and how much trust the team in SUB1 felt that SUB2 has demonstrated towards their work. 25% responded that they did demonstrate trust, 37.5% replies that "they rather demonstrated trust", also 37.5% answered that "they rather not demonstrated trust" and 0% responded that they did not demonstrate trust at all. One comment from a respondent on this question said: "In general we got a lot of ownership and, except for a few occasions, we felt like SUB2 trusted our knowledge and supported our decisions".

Q5. Top positive and negative things on co-development

Finally, the respondents were asked to in a subjective manner describe their experiences in a few words, the top three positive things that they thought should be

repeated in future co-development, as well as three things they think needed to be improved or avoided. Based on these responses we were able to identify certain areas that were mentioned more than others. The areas that were mentioned five times or more are presented in Table 2 together with a short description of what was being said about the specific areas.

Table 2: Survey replies on positive aspects and challenges in co-development

Positive aspects	No. of replies (tot. 170)	Challenges	No. of replies (tot. 192)
Communication	40 (24%)	Organization, Processes	83 (43%)
Relations	34 (20%)	Communication	28 (15%)
Ownership/Responsibility	10 (6%)	Ownership/Responsibility	24 (13%)
Attitude	10 (6%)	Shared vision	10 (5%)
Trust	6 (4%)	Knowledge transfer	5 (3%)

Authors' compilation

4.4.1 Explanation of positive aspects presented in Table 2

Communication - Regular communication for example weekly meetings. Direct communication, no need to go through managers. Conference calls were good and as well as the use of webcams: "Everyone should have webcam and headset to be able to have a quick chat about something. Much more efficient than email or Skype".

Relations - Positive experiences with visits and travels to each other's studios. Meeting co-workers and get a face on them was good for the collaboration: "Close collaboration - due to visits etc., I feel like I know them better than just a name on Lync (communication tool), which helps collaboration". The on-site visits also improved the communication as once you knew who people were it was easier to contact and talk to them.

Ownership - Clear and defined areas of ownership and responsibility makes work easier.

Attitude - Having a good attitude among the colleagues, friendliness, positive mind-set and willingness to collaborate.

Trust - Trusting other studios to deliver, give autonomy and allow freedom in tasks. "*Trust that they will do their part*".

4.4.2 Explanation of challenges presented in Table 2

Organization/Processes- It was stated that a review process was missing, needs to be improved or performed on a regular basis "we must maintain regular reviews, which we didn't". Some processes have not been agreed on and are not followed. Mentioned several times are also, how work should be organized and split up between studios for example regarding features. "Remote sites should not work on small things that we could just as well do here".

Communication- Here the employees stated that it is needed to communicate more and better "try to improve communication skills, especially email". The employees do not feel updated or that they know which person to contact or who is doing what, "Easy public lists of who to talk with about what features".

Ownership- Lack of ownership was mentioned several times in the survey results. It is needed to define the key roles and to give them power to make decisions. Clear responsibilities and direction is needed for the projects. It is important to know who is doing what and also which type of decisions they can take "clearer outlines on which studio who owns which feature".

Shared vision- The survey revealed that respondents felt that a shared vision and common goals were missing. Hence, the studios in the co-development are not aiming for the same quality. "All studios needs to embrace the same core values. E.g. SUB2 putting quality over everything else".

Knowledge transfer- The sharing of information between the studios was something that can be improved. Documentation and co-development information has been weak.

5. Analysis

The following chapter includes an analysis and discussion of our findings. The empirical findings will be analysed with the conceptual framework in order to find an answer to our research question.

5.1 Culture

The first part of the conceptual framework is culture. Culture is according to the conceptual framework mediated by integration and communication, which impacts the knowledge transfer.

After performing interviews and listening to different focus groups, we have found that The Company does not seem to have a strong organizational culture that is shared between the studios. The studios function more like two separate units, working and using the same name on the wall. One thing mentioned as a cultural difference by the employees at The Company, is that that SUB1 is more hierarchical, and SUB2 is more flat in its organization. As shown in research, cross-border M&A's are complicated as they require a double-layered acculturation (Stahl, Björkman &Vaara, 2007). As SUB2 was initially a cross-border acquisition, we can therefore expect to see challenges both on a national and organizational level. However, we believe, in accordance with other researchers that the two cultures do not exist independently, they are interconnected and therefore a multi-level perspective of culture can be used (Hofstede, 1982; Teerikangas & Very, 2006; Tung, 2007). In this case, we believe that there is a strong connection between the national culture and the organizational culture. The country where SUB1 is located, is know for its national culture with hierarchical structures. This hierarchy can also be observed in the studio culture. The lack of a shared culture between the studios could eventually lead to frustration, due to misunderstanding and stress (Very et al., 1996). As one employee stated, as long as you are aware of these cultural differences it does not seem to be a problem. An interesting point that one of the employees mentioned during an interview as a positive aspect of the co-development is to have an understanding for the other culture. Having an understanding for the other culture can save frustration, for example knowing that French people usually are late to meetings. Hence, a cultural understanding seems to be one solution to avoiding unnecessary frustration when codeveloping across national borders. The producer at SUB2, told us that in their office there is a large share of foreigners, about 40% of the employees are not from the host nation. This could also be one reason to why there is no larger challenge in terms of national culture for this specific co-development. Having almost half of the workforce originating from different countries would mean that the SUB2 studio most likely have a cultural understanding as they are used to work with multiple nationalities.

Haspelagh, Jemison and Empson (1994) stated in their preservation strategy which is also supported by Arjen and Slangen (2006), that when the integration is limited, cultural clashes are less likely to occur. From what we have understood, both of the studios are able to work independently from each other. Both studios seem to have their own work practices and are able to work autonomously on their tasks, without having the other studio giving strict directions of how the job should be carried out. We find that this is one of the main explanations to the successful co-development, in terms of avoiding cultural clashes.

5.2 Shared vision

Shared vision is the second key according to the developed framework. For this key, the framework states that a shared vision is mediated by relationships and communication, which impacts the knowledge transfer.

In this specific case study, the shared vision is discussed in terms of the game, which the studios are co-developing together. Hence, it is not the overall vision of The Company that will be in focus.

In our empirical findings shared vision is mentioned several times, mainly as a challenge in the co-development. Where it is mentioned in a positive sense, is when the employees got the chance to meet face-to-face, as this was said to help them share and understand the vision of the game. Especially when the other studio could be present at their studio to discuss the vision. According to the employees, meeting face-to-face was of high importance especially in the start of the collaboration. Ghoshal and Barlett (1988), Ghoshal, Korine and Szulanski (1994) emphasize in their research that these relationships work as a facilitator for knowledge transfer and value

creation. Tsai and Ghoshal (1998) write about this link between relations, knowledge sharing and how shared vision is an important determinant for this. The personal relations that were developed were also said to be important for the distance communication afterwards, as having a face on the person and knowing how they work reduced the risk of misunderstandings and also made it easier to be more straightforward in the communication.

When it comes to the challenges discovered in the empirical data, we have observed that there sometimes is a lack of shared vision between the two studios. The problem seems to be that the vision is not well enough communicated. In the creative industries, everything is created in the heads of the creators. This then needs to be expressed and transmitted to all other people working on the project, in order for them to produce what is wanted from the creators. This is where the challenge is - how can one communicate feelings and visions that comes from your mind in an effective way? It is not as simple as writing it down on a paper, as the reader might read and perceive it in another way. We believe that this adds another challenging dimension to cross-border co-development in creative industries that is not found in other more traditional industries. This since the more traditional industries have more possibilities to codify their vision, as in stating it on a paper, due to the lack of the creative element which is to be found in creative industries.

The vision of the game is mainly developed by SUB2, which means that it is essential that they can communicate it to SUB1. However, the communication between the studios does not seem to work well. One employee mentioned that it would be much better if SUB2 could come to SUB1 and give them the information in person and have a discussion with them about the vision, as they right now feel like the information trickles down the organization before it reaches them. This could be related to the distance between the organizations, both geographically as they are in different countries, as well as psychically, since they are two quite independent studios with no coherent culture developed between them. As Li (2005) also points out in her study that geographically dispersed units can be a challenge to the knowledge transfer. This as different countries may have different work practices that can lead to difficulties maintaining a common vision and goal, resulting goal-disparity.

Furthermore, It does not seem to be any strong organizational culture between the two studios. The studios are described to work as two independent studios, and what brings them together is the fact that they share the same owner and are developing a video game together. They are still very different in their way of working and a tight integration does not seem to be something they strive after. As our conceptual framework suggests, there is a link between organizational culture and shared vision. Håkansson and Snehota (1995) imply that the organizational culture has an influence on the shared vision, as it helps create a commitment to the organization and its goals. We believe this is one of the underlying reasons to why there is a lack of shared vision experienced between the two studios. Since this culture, that may have a unifying effect in communicating the shared values does not exist. This can also be seen as a balance between what is wanted. On one hand a strong organizational culture might facilitate a shared vision, which can be very good when co-developing between two geographically, separated studios. On the other hand, if the two studios were to have a common organizational culture, it would most probably mean that they have to be more integrated, and maybe change some of their own studio values and practices to match in order for a common culture. And as suggested by researchers as Håkansson and Snehota (1995), Davis (1968), Schweiger and Weber (1989), a higher integration increases the risk for cultural clashes. Not to be forgotten, creating an organizational culture would also require investments of both time and money.

5.3 Trust

The third key factor in the conceptual framework is Trust. Trust is according to the framework mediated by relationships, which impacts the knowledge transfer.

In the empirical data we have found a strong connection between trust and ownership. We have found that many people feel that they are trusted when they are given responsibility and ownership to perform certain tasks or create parts of the game. Therefore it can be argued that there is a link between trust and ownership, which we will continue to discuss later in the analysis.

The type of trust that we have observed in the studios seems to match with what Crotts and Turner (1999) writes about as Reciprocal trust, which is the highest level

of trust in their model. This type of trust is characterized with a high commitment and builds on a mutual trust between the parties. The determinants for Reciprocal trust are also the same as we find to affect the trust between the studios, namely the social bonds and communication. We have found that trust is created through relations. Many of the employees have mentioned that the trust was built when meeting their peers face-to-face. The employees said that this type of meeting gave them an understanding of each other. If someone for example sent you an email that you perceived had an unfriendly tone, you could later understand when meeting her/him that it is just how that person communicates, and that this person is actually really nice. These interpersonal relations that are created when meeting face-to-face is something that Kanter (1994) has seen in her research, as she argues that meeting face-to-face will decrease the risk of misunderstandings and conflicts. We believe, which has also been observed, that empathy is something that could evolve when meeting face-to-face. Getting to know the other person a little better as when speaking about their families or background can create empathy for that other person. This can be good for the collaboration because you might feel more willing to help your colleagues since you have this relation and empathy between you. Meeting face-toface also made the distance communication easier afterwards, since it is always easier to communicate when you have a face on the person behind the screen.

Research by Li (2005) has shown that trust together with shared vision works as facilitators for knowledge transfer, value creation and resource exchange. According to other researchers (Roberts, 2000; Uzzi, 1997; Nahapiet & Ghoshal, 1998), trust eliminates the risk of opportunistic behaviour and reduces the uncertainty. The reduced uncertainty that trust creates, together with the ownership given, allows employees to try out new ideas, as it is accepted to fail. When the studio is allowed to use their creativity, new innovation or ideas are likely to appear, which gives an opportunity for knowledge creation between the studios. This is especially important for business that operates within the creative industries.

5.4 Empirical findings not covered in the framework

Two important factors have been identified in our empirical data that are not part of our framework: ownership and processes. We will below discuss each of these factors and their implications on co-development.

5.4.1 Ownership

As already stated under trust in our analysis, we found a very strong connection between trust and ownership in our empirical data. Ownership was mentioned by several employees in different contexts. Firstly, giving ownership was often discussed as a solution to problems of knowing who is responsible for what in the codevelopment. By giving complete ownership to a person or a studio, grey areas of who is responsible for what, would be avoided. Secondly, ownership was also being discussed in relation to trust. Employees felt that they were being trusted when they got ownership, which can also be translated into responsibility. The responsibility and trust they were given can be connected to the inclusion they felt on the project. Employees at SUB1 often described that SUB2 made them feel like they were cocreators of the game, and not just the "outsourced guys".

Accordingly we think that ownership should be included in the framework as a determinant and mediator of trust, and that the ownership in turn will increase the knowledge transfer between the subsidiaries.

5.4.2 Processes

Re-occurring in the collected empirical data was that the respondents mentioned that they in the co-development faced challenges in various areas that we have categorized under the term processes. When taking a closer look at the information we find labelled under processes, we can conclude that many of the challenges mentioned can actually be related to communication.

The main problems that were discussed are; lack of structural processes, as documentation for knowledge sharing and transparency between the offices, the review and validation processes, decision-making and structural support for

communication. We argue that all of the systems, tools and processes are needed to improve the communication and knowledge transfer in the co-development. For example, to be able to share information and communicate it is necessary that everyone updates the same system with the latest information. To have a smooth co-development it is necessary that the decision-making, review and validation follow certain processes, which we argue is a form of structured communication. In the literature review to the best of our knowledge, we have not found processes and tools to be discussed as a challenge or mentioned in regards to communication and co-development. The literature discuss communication more in terms of direct communication and face-to-face, not the communication through systems and processes. We do however believe based on these empirical findings that it is it necessary to extend the term communication to also include structural communication and tools. Structural communication through decision-making and review processes, tools as for example the use of project management tools for communication.

5.5 Revised framework for co-development

Our empirical data points at two new areas, ownership and processes, that has not been identified in the literature review on co-development. Since these two areas are seen as challenges and have implications on key factors mentioned in our framework, we believe it is important to include them in the conceptual framework. Below is therefore a revised framework. Ownership has been added as a mediator for trust, as our empirical data shows a strong connection between the two factors. Processes and tools have been incorporated to communications, as we think the term communication could be extended with this form of communication, using tools and processes.

The changes made to the conceptual framework are based solely on the findings from this particular case study, which is important to keep in mind. Hence, we do not imply that the findings are general challenges for all types of co-development in the creative industries.

Culture

Communication, Processes, tools

Shared Vision

Trust

Ownership

IMPACTS

Knowledge Transfer

Figure 4: Revised conceptual framework of co-development

Authors' compilation

6. Conclusion

This chapter provides a conclusion based on the analysis of our empirical data and presents an answer to our research question. Furthermore, theoretical contributions and managerial implications will be presented as well as recommendations for future research.

6.1 Findings and theoretical contributions

This thesis presents the challenges that are found in cross-border co-development in the creative industries, with a case study on a company developing video games.

The stated research question that this paper will answer to is:

What are the organizational challenges when co-developing video games across national borders?

To begin with, previous studies on co-development and collaboration have identified three areas that are central for co-development namely: Trust, Shared vision and Culture. These keys have been used as a foundation for creating the conceptual framework. Our findings confirm that these factors are challenges in cross-border co-development of video games. Our research have also found two new areas, ownership and processes, that are seen as challenges in co-development. These factors have therefore been added as mediators and determinants to our revised conceptual framework

The challenges that are found in co-development can be divided into the three key areas, Trust, Shared vision and Culture. Starting with culture, we find that the level of integration between the two studios is the determinant of the potential cultural clash that can occur. In this specific case, the two studios have a limited integration with each other, as shown by the fact that they have preserved their own studio culture and work practices. We find this limited integration between the two studios to be the explanation to why cultural differences have not been a major challenge to this co-development.

Secondly we have identified the lack of a shared vision to be a challenge to the codevelopment of the video game. The main explanation for the lack of shared vision is found in the lack of communication between the studios on what the vision is. Personal relations and face-to-face meetings have been identified as facilitators for sharing the vision between the studios. We also argue that the absence of organizational culture could have an implication on the shared vision, as research argues that having an organizational culture helps spread the vision.

Trust is the third key that can be challenging to co-development. This factor is however in this specific case something that have been identified as a positive aspect. Trust is found to be built by personal relations when meeting face-to-face. Giving ownership and responsibility to the other studios is also important to build trust.

The theoretical contribution of this thesis is to the field of cross-border codevelopment in the creative industries. This thesis contributes with a conceptual framework, which includes important factors that has been identified from the literature of cross-border co-development and collaboration. As to the best of our knowledge, no previous framework on cross-border co-development in the creative industries exist in our suggested form, and we believe that our framework makes an important contribution to this less explored subject area.

6.2 Managerial implications

We have in our research identified several areas that could be of importance for practitioners in order to create successful co-developments.

- Meeting face-to-face has been identified as a very important factor and mentioned to be positive for the co-development by the majority of the interviewed employees. The benefits are many, for example it helps to build trust between employees, it facilitates the understanding and sharing of the vision, and it makes the distance communication easier, and more straightforward afterwards.
- Find structures and processes for how communications should be handled in the co-development. Everything from direct communication as the use of e-

mails and video calls to how to communicate within the project, updating the same project tools, how to produce and share documentation, how feedback should be given and who the decision-makers are. These processes are important to facilitate the knowledge sharing between the studios.

- When working cross-border with multiple nationalities cultural differences are to be found both between the countries in terms of national culture, and also between the studios, in terms of organizational culture. This could lead to cultural clashes, as work practices due to cultural heritage could differ. Encouraging small informal talks about cultural differences amongst the employees could be an easy and rather cheap solution to help people understand each other better and to avoid frustration with for example the other studios work practices.
- To create a stronger shared vision, regular communication is important and also having the vision delivered by someone in person face-to-face will also facilitate the understanding. Creating an organizational culture between the offices could help spreading the vision and increase the knowledge transfer, but this is also an investment of both time and money that have to be taken into consideration. Having some common values for the project shared between the studios could be a good start in order to set the focus areas and vision of the co-development.

Overall, having a constant focus on relations and communications throughout the project are of the highest importance, as these are the biggest challenges of codevelopment.

6.3 Future research

The thesis reveals that the research of co-development has previously been limited and that research on co-development in creative industries is rather unexplored. We have found support in the inter- and intra-firm collaboration literature to develop a conceptual framework that aims to explain the challenges when co-developing cross-border in creative industries. We suggest for future research that the studies of co-development could be extended to include more case studies on companies within the creative industries. This in order to see if other companies face similar challenges as

seen in this specific case study and if the revised conceptual framework will be valid for other co-development collaborations as well.

As we stated in our introduction, "the world is shrinking", companies come closer to each other thanks to technical innovations and a fast paced globalization. Does larger geographical distances affect the co-development? We think it would be interesting to include several units that are more geographically dispersed since this could have other impacts on the co-development. Since in our case, the two locations studied has been located in the same time zone. Hypothetically this could imply that cultural differences would become more challenging and that communication becomes more complex.

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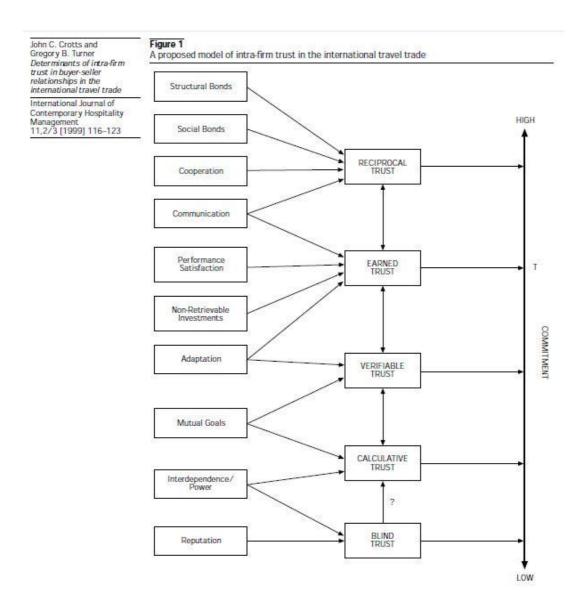
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Appendix

1. Theoretical Framework by Crotts and Turner (1999)



Source: Crotts & Turner (1999)

2. Interview guide:

Below are the questions that were asked in regards of the different interviews and focus groups. The authors of the thesis compiled these interviews questions. Apart from these questions, follow up questions were also asked.

2.1 Focus groups

- Could you please share what is working well in the co-development between the two studios SUB2 & SUB1?
- Could you please share what is not working well in the co-development between the two studios SUB2 & SUB1?

2.2 The respondents EM1A, EM2A, EM3A, EM4A and EM5A.

- Please present yourself. What is your name and what is your role within the company?
- Could you please share what is working well in the co-development between the two studios SUB2 & SUB1?
- Could you please share what is not working well in the co-development between the two studios SUB2 & SUB1?

2.3 The respondent SMSUB1.

- How many people work in this studio in total?
- What does the company structure look like?
- Does The Company own all of the studios?
- Who decides on which studios that should co-operate/co-develop?
- How does the communication work between the subsidiaries? Is there anyone that is said to be responsible for the communication within the projects?
- Could you please share what is working well in the co-development between the two studios SUB2 & SUB1?
- Could you please share what is not working well in the co-development between the two studios SUB2 & SUB1?

2.4 The respondent PSUB2.

- Could please present yourself. What is your name and what is your role within the company?
- How many people work in this studio in total?
- What does the company structure look like?
- Could you please share what is working well in the co-development between the two studios SUB2 & SUB1?
- Could you please share what is not working well in the co-development between the two studios SUB2 & SUB1?