The Role of Business Intelligence in the Internationalisation process of SMEs

Maik van Vugt* & Ole Jacobsen

M.Sc. Strategic entrepreneurship for international growth, Halmstad University, Halmstad, Sweden.

*Corresponding author: maivan16@hh.se

ABSTRACT This study aims to examine the subject of Business Intelligence (BI) and the use of it in the internationalisation process of small and medium sized enterprises (SMEs). BI is a rising topic and, is due to its advantages, considered extremely important for Multinational enterprises (MNEs). However, since BI has a fair amount of barriers (critical success factors) before a firm is able to operate correctly with it, SMEs are reservedly towards BI systems. After studying the SMEs internationalisation process, the use of BI by SMEs and in internationalisation processes in general, and the barriers considering the implementation of a BI system, the conclusion was drawn that BI systems have, due to their information providing nature, a positive effect on the internationalisation process of SMEs. However, as a result of the critical success factors of BI systems, are relatively few SMEs implementing this system, therefore the role of BI in the internationalisation process of SMEs is rather limited.

KEYWORDS *Business intelligence, internationalisation process, small and medium enterprises, SME, decision making*

1. INTRODUCTION

In the last couple of years, a significant growth in small and medium sized enterprises (SMEs) who found their way to foreign markets was discovered. This sudden rise of internationalisation of SMEs raises questions such as; what is the reason for this growth? This curiosity is the starting point for this study. Next to the increase in SMEs that are going international, is there an interesting growth in the use of Business Intelligence (BI) systems in enterprises. The term Business intelligence has attract a lot of attention during the last decades. BI solutions achieved many advantages for companies management procedure, such as providing valuable information about their own business performance but also add information about customers, markets and competitors. The significance of data that companies generate in their own businesses regarding information about, for example, customer, is widely adopted by larger companies. Therefore, the research about the use of BI solutions in

larger multinational enterprises (MNEs) is fairly discovered. However, literature regarding BI in SMEs is relatively limited. Despite the fact that the existing literature covers the main concepts of BI in SMEs, there is a lack of studies regarding more specific topics and situations.

Research question

As of the lack of specific studies regarding SMEs and BI, a research gap was found regarding the relation of BI systems and the internationalisation process of SMEs. In order to fill the gap of this rather unexplored research area, the following research question is stated:

What is the role of business intelligence in the internationalisation process of SMEs?

To answer this question, will this study present the internationalisation processes of SMEs, including the problems that arise with this process, whereafter, an overview of the use of BI systems in general and in SMEs, as well as the implementation of these systems, will be presented. The theory will be ended with an overview of the different forms of intelligence that can be used in the internationalisation process of a firm.

2. METHOD

As Business Intelligence is a fairly new research area the available literature is rather limited in certain connections. To ensure to accumulate a relatively complete census of relevant literature, there was made use of the recommended approach to determine the source material of Webster and Watson (2002). Who state that to find relevant source researchers should follow the following structure:

1. Start with the leading journals, the major contributions are likely to be found here
2. Go "*backward*" by reviewing the citations for the articles identified in step 1
3. Go "*forward*" by using the Web of Science to identify articles citing the key articles identified in the previous steps.

Despite the fact that Webster and Watson (2002) limit the first step to leading journals, in this study there was elaborated on this approach by using online databases, such as, World of Science, Google Scholar, and Scopus.

The following keywords were used to find studies with a relation to the earlier mentioned research gap: *Business intelligence, internationalisation process, small and medium enterprises, SME.* The articles abstract and conclusion were reviewed to receive a first valuation of the content. The articles have been placed in the six stated theoretical approaches (Chapter 3) to structure the information regarding different areas. The rather broad range of underlying theory ensured to receive a complete impression of the topic and to find the correlation in terms of the mentioned research question.

3. THEORY

The purpose of the following part is to provide a comprehensive theoretical framework of the underlying research areas. It is collected from a broad range of

current literature related to the following parts: (3.1) Small and Medium Enterprises (SMEs), (3.2) the internationalisation of SMEs, (3.3) Business intelligence (BI), (3.4) Implementations of BI, (3.5) BI in SMEs and (3.6) BI in internationalisation process.

3.1 Small and Medium Enterprises (SMEs)

To find a clear differentiation of which businesses can be considered as SMEs, several criterias are utilized. The range of distinctive definitions and therefore of different used criteria is broad. Generally, the number of employees, the total net asset, sales and investment level are taken to classify the business' size (Ayyagari et. al, 2007). Despite the fact, that the definitions varies by countries, industries, organisations and academic communities, the most common definition is based on the number of employees (Inyang, 2013).

An official statement regarding the classification of SMEs is stated from the European Commision. Thereby, an enterprise with fewer than 250 employees and an annual turnover up to 50 million euro and a balance sheet which not exceed 43 million euro, is considered as a SME (Inyang, 2013). As mentioned before, the range of how SMEs can be defined is related to the country as well, since underdeveloped countries may consider an enterprise as medium sized which is considered as small in other countries. Other variables like the control of a small share market, personal management by the owner or a lack of formal structures can define the term SMEs further (Inyang, 2013). Regardless the fact, that those

enterprises are defined as small and medium sized, they create a great value for the economies in every country. *The European Union Commission Report of 2005* declared SMEs as the 'engine of the European economy', as their contribution to the European economy is remarkable. The report provides, that 99 % of all companies are SMEs which contribute circa 75 million jobs (European Commission, 2005). Those values are consistent with many other countries all over the world. It demonstrates the relevance of SMEs for the worldwide economy which makes leads to the next theoretical part, the Internationalisation of SMEs. SMEs are no longer the powerless little enterprises in the shed of big organizations, they undergo the same processes as big enterprises.

3.2 Internationalisation of SMEs

As stated before, SMEs are highly important for the economy in many ways. A significant development can be seen in the arising internationalisation progress of SMEs. Before considering this, the term internationalisation needs to be clarified. Johanson and Wiedersheim-Paul (1975) observed the patterns of small firms internationalisation processes when the trend towards international operations just arose. They investigated the internationalisation approaches of small Swedish firms to draw a conclusion for a general internationalisation procedure. Based on that, Johanson and Vahlne (1977) developed a model, called "Uppsala internationalisation model" which provides the basic mechanism how small firms increase their international involvement. Johanson and Vahlne (1977)

investigated therein certain steps for the internationalisation of small firms. The model proposes to start the involvement in countries with small psychic distance to the home country before extend into rather foreign regions. In this respect the model takes the high level of uncertainty and the lack of information in the internationalisation process into consideration (Vahlne & Johanson, 2013).

Developments and further possibilities regarding the use of networks gave rise to more research on these topic. Thus, Johanson and Vahlne (2013) evolved a revised model to take the component of networks into consideration. According to Vahlne and Johanson (2013) the internationalisation process is characterized by a continuous interaction in one or more relationships to develop opportunities. The most significant terms of these processes are "experiential learning and commitment building" (Vahlne & Johanson, 2013). This results in a meaningful exchange of knowledge due to the relationships to various partners, which emerges a valuable network. The substantial amount of research in the field of internationalisation shows a vast development with many significant changes. The enormous tendency towards globalisation also accelerates the internationalisation process of enterprises and makes it even more necessary to compete in an international environment. With the general understanding of the internationalisation process a more detailed idea of the SMEs' internationalisation can be explored.

When it comes to the question to what extent the internationalisation process of SMEs distinct from the procedure of large multinational enterprises (MNEs) there are various factors studied. Those factors are mainly discussed under the topic of market entry strategies, as this is the first step towards international relations (Laufs & Schwens, 2014). Disadvantages for SMEs by entering foreign markets compared to MNEs are related to the commitment to foreign markets, risk, the lack of control as well as an absence in foreign information which all results in high uncertainty (Laufs & Schwens, 2014). It is evident that those differentiations between SMEs and MNEs arise from limited options in terms of, for example, financial and personnel resources (Laufs & Schwens, 2014).

Small capabilities lead to more reserved actions when it comes to internationalisation of SMEs. Nevertheless, the last decades have shown a rapid internationalisation of enterprises, industries and markets. And even though the challenges for SMEs might be higher many of them faced the challenge and internationalised successfully (Olejnik & Swoboda, 2012). Olejnik and Swoboda (2012) investigated certain motives which are mainly determined by internationalisation orientation, growth orientation, communication capabilities and intelligence generation capabilities. Furthermore, they stated that those motives might change due to current circumstances related to developments (Olejnik & Swoboda, 2012). In respect of SMEs' developed capabilities which may arose during the last couple of years the internationalisation process needs to be

revised. Possible advantages could emerge due to the use of intelligence generation. Thus, further research is conducted.

3.3 Business intelligence (BI)

Business intelligence software is a collection of decision support technologies for a firm with the goal to make it possible for executives, managers, and analysts to make better and faster decisions (Chaudhuri, Dayal and Narasayya 2011). BI is often referred to as the techniques, technologies, systems, practices, methodologies, and applications that analyse business data to help an enterprise better understand its business and market and therefore, help make timely and proper business decisions (Chen, Chiang and Storey 2012).

The data which is used to perform BI tasks often are collected from different sources, usually, but not exclusively, the data comes from multiple operational databases across departments within an organisation. The different sources contain a variety of data, which are typically loaded into a "data warehouse". The most known choice for storing and querying warehouse data is relational database management systems (RDBMS) (Chaudhuri, Dayal and Narasayya (2011).

Throughout the years BI has changed tremendously, the first elements regarding BI have been developed in the 1970s (statistical methods) and 1980s (data mining techniques). These elements, among others such as Data management and warehousing, formed the earliest version of BI (BI 1.0). This first version of BI relied heavily on data collection, extraction, and analysis technologies. Although that some elements of BI were already developed in the 1970s, the analytical techniques used in these systems popularised in the 1990s (Chen, Chiang and Storey 2012).

Because the internet and the web began to offer unique data collection and analytical research and development opportunities, BI 1.0 evolved in the early 2000s to BI 2.0. This evolution is characterised by web search engines as Google and Yahoo and e-commerce businesses such as Amazon and Ebay. BI 2.0 is characterised by text and web analytics tools which analyses web intelligence, web analytics, and user-generated content, which is collected through web-based systems (Chen, Chiang and Storey 2012).

Whereas BI 2.0 is web-based, BI 3.0 is mobile and sensor-based. The growth of mobile connected devices has been explosive over the last couple of years. The Economist published an article in 2011, stating that the number of mobile phones and tablets surpassed the number of laptops and PC's. The same article forecasts that in 2020 the total amount of mobile connected devices will reach the 10 billion. With the growth of these devices, highly mobile, location-aware, person-centered, and context relevant operations and transactions offer unique opportunities. However, BI 3.0 or Mobile BI, is a fairly new topic within BI. Most enterprises are therefore still using BI 2.0 (Chen, Chiang and Storey 2012).

Due to the technological age which we live in, new data is created every day. Because

of this increase in data, there is a desire for low-cost data platforms that can support this larger quantity of data. The challenge that is created by this desire is often referred to as the "Big Data" challenge Chaudhuri, Dayal and Narasayya (2011).

The landscape of BI in research and industry is vibrant today, data acquisition is becoming easier and large data warehouses are becoming more common. There is an increasing demand to deliver interactive BI experiences on mobile devices for executive and managers (Chaudhuri, Dayal and Narasayya 2011).

3.4 Implementations of BI

As stated before, BI is an essential tool for most of the most successful companies with the US, however, it is not widely integrated in SME's, the main reason is because implementing a BI system is not an easy process in which an enterprise purchases a combination of software and hardware. The process is rather complex and requires appropriate resources and infrastructure over a longer period of time (Oslzak & Ziemba, 2012; Moss & Atre, 2003; Yeoh & Koronios, 2010).

According to Oslzak and Ziemba (2012) it is vital for an enterprise to take three perspectives to integrate a BI system successfully, each with their own set of Critical Success Factors (CSFs). Oslzak and Ziemba (2012) state that if the CSFs are not reached, it is most likely that the implementation of the BI system will fail, therefore the CSFs can be seen as barriers for enterprises to implement a BI system. The three perspectives of Oslzak and Ziemba (2012) are the (1) *organisation*

perspective, which focuses on the managerial aspect of the BI systems (e.g. budget, qualified team), (2) *process perspective,* which puts the focus on the actual utilisation of the BI system, and (3) the *technology perspective,* that is focussed on the quality of the system itself (Oslzak & Ziemba, 2012).

The mentioned CSF's for the implementation of the BI system form barriers for some SME's. In addition to the findings of Oslzak and Ziemba (2012) Gangadharan and Swami (2004) claim that the most important challenges that are faced are:

- Providing access to extensive resources from devices with limited capacity
- Benchmarks and performance targets
- Creating a new information infrastructure to support the development and deployment of multiple applications
- Integrating existing enterprise systems and connecting with multiple networks
- Creating solutions that perform in and out of both network coverage and managing the solution
- Enforcing security and role-defined access to the data warehouse

Due to the many barriers and challenges, it is necessary to meet some basic conditions to effectively implement a BI system. The first of this basic conditions is that the BI system must be a part of the company's business strategy. If the implementation of a BI system does not corresponds to the

real needs at all levels of management, the BI system cannot be used effectively. Second, the implementation of the BI system requires knowledge and skills for the implementation. A qualified team consisting of specialists is essential.

The last basic condition that Oslzak and Ziemba (2012) emphasise is the cost of implementation. They claim that the investment must cover the costs of technology, but also account for measures to establish a project team, technical support, substance support change management employees training as well as painting ad developing the BI system. Management should be aware of these costs and willing to invest in the system (Guarda et. al, 2013; Oslzak & Ziemba, 2012).

3.5 BI in SMEs
The significance of BI solutions in large multinational enterprises has aggregated a huge amount of literature. But also in the operations of small and medium enterprises has the term business intelligence reached a certain level of importance (Guarda et. al, 2013). Information and communication systems (ICT) are nowadays irreplaceable for the performance of any size of business. Maguire, Koh and Magrys (2007) found out that over 70 per cent of their respondents stated that ICT supports their SMEs in multiple competitive areas. As the technological opportunities have rapidly developed from ICT towards BI solutions over the last ten years, SMEs are nowadays facing new tempting solutions to enhance their business performance due to the use of intelligence. Companies,

regardless the size, are constantly seeking to improve their operations and gain competitive advantages on the basis of information processing (Guarda et. al, 2013). Large enterprises are more likely to adapt BI solutions already since the application of those solutions used to be associated with intensive investments (Guarda et. al, 2013; Oslzak & Ziemba, 2012;). Despite the monetary fact of applying BI solutions, they can offer a wide range of advantages that can save money in the long-term perspective.

Fast changing and unstable economic environment makes it important for each manager to support their decisions with adequate information to be anticipate possible changes as accurately as possible (Tutunea & Rus, 2012; Williams & Williams, 2010). In particular for SMEs which are operating among many competitors and under more unstable conditions than large organisation it is essential to have as much information resources as possible to take reasonable decisions (Tutunea & Rus, 2012). BI solutions, as mentioned before, are most helpful to gather and analyze business data to provide meaningful information due to BI analytical tools. The created data of companies comes from several data sources, for example, from customer relations, suppliers, business partner, market research and from competitors (Guarda et. al, 2013).

The implementation of BI solutions in SMEs is limited mainly due to internal aspects. According to Tutunea and Rus (2012) SMEs limitations in terms of the implementation of BI solutions regarding

the ICT infrastructure, human and financial resources. Besides high investments for the implementation there are human resources required for the support and the efficient exploitation of the solutions (Tutunea & Rus, 2012). Developments in the ICT infrastructure are another required step towards highly efficient BI solutions. Tutunea and Rus (2012) characterized the building of private networks, Intranet, comprised of connected networks as an initial step for SMEs.

Another simple solution is based on the individual ICT resources of the SMEs, without the use of external providers. Data analysis are carried out with known systems as MS Excel, Open Office Calc, Lotus 1-2-3 et cetera. With the conduction of simple statistical analysis, what-if analysis, scenario analysis and graphic presentation tools, the management is able to receive cost-efficient information based on the underlying data (Tutunea & Rus, 2012).

Guarda et. al (2013) proposed an alternative solution for SMEs. The utilization of Software-as-a-Service (SaaS) upgrade the company's systems and information technologies. SaaS solutions are time and cost-efficient without the need of big investments in personnel trainings or ICT infrastructure. As they are implemented on web-based platforms, the only requirement is a secure internet connection (Tutunea & Rus, 2012). BI solutions became, not only for large companies but also for SMEs, essential to face the fast changing business environment with appropriate management

decisions based on valid information about customers, competitors, markets and industries.

3.6 Intelligence in internationalisation
Intelligence can be used in many different aspect of business, however, since the aim of this study is to show the role of BI in the internationalisation process, the focus will be on the intelligence used in this process.

As stated before is there a growth in the internationalisation of SMEs. Nevertheless is according to Nahan-Suomela and Lautamaki (2013) the involvement of SMEs on the global relatively low. They state that the few SMEs that are involved are the ones that make use of intelligence. According to Keskin (2006), the SMEs that expanded to other markets used forms of intelligence to guide them during this process. These finding strike with the findings of Liesch and Knight (1999), who suggest that information (intelligence) in the internationalisation process is a fundamental antecedent to SMEs.

Miocevic and Crnjak-Karanovic (2011) found in their study a significant influence of the cognitive and information-based capabilities on a company's export performance. Their results suggest that for a successful expansion to a foreign market, intelligence has a value-added impact on the export performance. Senik and Sham (2011) underline this statement; according to their study has intelligence a positive effect on the internationalisation process, however, in their study, Senik and Sham (2011) were unable to evaluate how the sources assist companies to

internationalise.

Unlike to Senik and Sham (2011), Herrero, Corchado, and Jimenez (2011) did manage to evaluate how the sources assist companies to internationalise. In their Study, Herrero et al. (2011) draw the conclusion that the application of several business intelligence solutions by MNEs, were used to support their data analysis in the context of country and political risk.
Ren and Eisingerich (2014) agree that business intelligence can be used for analysing potential foreign markets. However, unlike Herrero et al. (2011), Ren and Eisingerich (2014) suggest that BI can provide relevant intelligence regarding. consumers, competitors and market trends in general in a potential market.

Although the findings of Herrero et al. (2011) and Ren and Eisingerich (2014) suggest that data analysis' are used for valuable insights such as country and political risk, customers and markets, do Amabile, Laghzaoui, Peignot, Peneranda and Boudrandi (2013) claim that a valid analysis does not mean that the managers base their decisions on it. According to their findings, are the BI system giving valuable information regarding foreign market entry, However, is it vital that this information matches with the point of view of the management.

4. CONCLUSION AND DISCUSSION

It can be concluded that the internationalisation drift of SMEs is rising. Nevertheless do SMEs have disadvantages by entering a foreign market. According to Laufs and Schwens (2014), is the risk, lack of control, and the absence of information regarding the foreign market the main reasons for this disadvantages. These disadvantages result in high uncertainty regarding internationalisation for the SMEs. However, when a SME decides to expand to a foreign market, it is usual that the SME involves in a country with small psychic distance, as described in the Uppsala model of Johansson and Vahlne (1977). They state that by using this model, the level of uncertainty and the lack of information towards the foreign country is reduced (Johansson & Vahlne 2013).

It could be said that internationalisation almost exclusively occurs when the risk and the uncertainty for the SME is relatively low.
BI systems could have, just as the Uppsala model, the same positive influence on the internationalisation process. Since the main goal of BI systems is to provide information for executives, managers, and analysts on which they can base their decisions, could a system as such provide risk and uncertainty decreasing information. Multiple researchers have found a significant influence of the information-based capabilities on the export performance (Miocevic & Crnjak-Karanovic, 2011; Senik & Sham, 2011). The combination of insights that BI systems can give in foreign countries, decreases the risk and uncertainty of the internationalisation process. These insights are related to the country and political risks, consumer, competitor, and market trends.

Despite the fact that BI systems are having a positive effect on internationalisation (Miocevic & Crnjak-Karanovic, 2011; Senik & Sham, 2011; Nahan-Suomela & Lautamaki 2013), is the adoption of BI systems in SMEs relatively low. The reason for this absence in SMEs are the many barriers of a successful BI system, such as the high cost, and change in managerial approach (Guarda et. al, 2013; Oslzak & Ziemba, 2012; Naidoo 2011). Therefore it can be said that the role of BI in the internationalisation process of SMEs is limited. However, when a SME adopted BI, it is more likely that they will explore foreign markets. Secondly, the BI system has a positive effect on the export performance of a SME.

5. FUTURE RESEARCH

Since a limited adoption of BI systems in SMEs is discovered, it is interesting to take a look at SaaS systems within SMEs. These systems are less costly to implement with the possibility to have the same results. Therefore, it is suggested to conduct a study regarding the role of SaaS in the internationalisation process of SMEs.

6. REFERENCES

Amabile, S., Laghzaoui, S., Peignot, J., Peneranda, A., & Boudrandi, S. (2013). Business intelligence practices for exporting SMEs. *International Business Research*, *6*(2), 101.

Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics*, *29*(4), 415-434.

Chaudhuri, S., Dayal, U., & Narasayya, V. (2011). An overview of business intelligence technology. *Communications of the ACM, 54*(8), 88-98.

Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business intelligence and analytics: From big data to big impact. *MIS quarterly*, *36*(4), 1165-1188.

European Commission. (2005, January 1). The new SME definition. Retrieved from https://www.eusmecentre.org.cn/sites/default/files/files/news/SME%20Definition.pdf

Gangadharan, G. R., & Swami, S. N. (2004, June). Business intelligence systems: design and implementation strategies. In *Information Technology Interfaces, 2004. 26th International Conference on* (pp. 139-144). IEEE.

Guarda, T., Santos, M., Pinto, F., Augusto, M., & Silva, C. (2013). Business intelligence as a competitive advantage for SMEs. *International Journal of Trade, Economics and Finance*, *4*(4), 187.

Herrero, Á., Corchado, E., & Jiménez, A. (2011). Unsupervised neural models for country and political risk analysis. *Expert Systems with Applications*, *38*(11), 13641-13661.

Inyang, B. J. (2013). Defining the role engagement of small and medium-sized enterprises (SMEs) in corporate social responsibility (CSR). *International business research*, *6*(5), 123.

Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm—four Swedish cases.

Journal of management studies, *12*(3), 305-323.

Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. *Journal of international business studies*, *8*(1), 23-32.

Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. *European Journal of innovation management*, *9*(4), 396-417.

Laufs, K., & Schwens, C. (2014). Foreign market entry mode choice of small and medium-sized enterprises: A systematic review and future research agenda. *International Business Review*, *23*(6), 1109-1126.

Liesch, P. W., & Knight, G. A. (1999). Information internalization and hurdle rates in small and medium enterprise internationalization. *Journal of International Business Studies*, *30*(2), 383-394.

Maguire, S., Koh, S. C. L., & Magrys, A. (2007). The adoption of e-business and knowledge management in SMEs. *Benchmarking: An International Journal*, *14*(1), 37-58.

Marjanen, T. (2017). How Business Intelligence has changed management accountants' profession and roles?.

Miocevic, D., & Crnjak‑Karanovic, B. (2011). Cognitive and Information‑Based Capabilities in the Internationalization of Small and Medium‑Sized Enterprises: The Case of Croatian Exporters. *Journal of*

Small Business Management, *49*(4), 537-557.

Moss, L. T., & Atre, S. (2003). *Business intelligence roadmap: the complete project lifecycle for decision-support applications*. Addison-Wesley Professional.

Nahan-Suomela, R., & Lautamäki, S. (2013). The role of market orientation in internationalization of SMEs. In *Cultural and Technological Influences on Global Business* (pp. 242-257). IGI Global.

Olejnik, E., & Swoboda, B. (2012). SMEs' internationalisation patterns: descriptives, dynamics and determinants. *International Marketing Review*, *29*(5), 466-495.

Ren, S., Eisingerich, A. B., & Tsai, H. T. (2015). How do marketing, research and development capabilities, and degree of internationalization synergistically affect the innovation performance of small and medium-sized enterprises (SMEs)? A panel data study of Chinese SMEs. *International Business Review*, *24*(4), 642-651.

Senik, Z. C., & Sham, R. M. (2011). SME internationalization intelligence information and knowledge on international opportunities. *Gadjah Mada International Journal of Business*, *13*(2), 161-183.

Tutunea, M. F., & Rus, R. V. (2012). Business intelligence solutions for SME's. *Procedia Economics and Finance*, *3*, 865-870.

Vahlne, J. E., & Johanson, J. (2013). The Uppsala model on evolution of the multinational business enterprise–from internalization to

coordination of networks. *International Marketing Review*, *30*(3), 189-210.

Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, xiii-xxiii.

Williams, S., & Williams, N. (2010). *The profit impact of business intelligence*. Morgan Kaufmann.

Yeoh, W., & Koronios, A. (2010). Critical success factors for business intelligence systems. *Journal of computer information systems*, *50*(3), 23-32.