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An Analysis of GPT Technology in Supporting International Entrepreneurship

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Abstract

This thesis investigates the applications and implications of Generative Pretrained Transformer (GPT) technology in international entrepreneurship. The research questions focus on how GPT can serve as a strategic tool, communication tool, and knowledge leverage tool, and how these applications influence decision-making, enhance performance. The findings from the analysis chapters highlights that GPT significantly contributes to strategic planning, market analysis, and operational management, thereby enhancing decision-making and performance. GPT technology, acting as a potent communication tool, nurtures more robust client relationships and eases cross-cultural interactions, courtesy of its superior language processing capabilities. The thesis discusses how these capabilities of GPT can lead to reduced miscommunications and enhanced client satisfaction. This, in turn, contributes to cost savings by retaining existing customers and attracting new ones, thereby enhancing profits. Moreover, The main theoretical implications that this thesis has resulted in will showcase the time efficiency brought by automated, high-quality communication that reduces man-hours spent on routine interactions, freeing resources for strategic tasks for international entrepreneurship.

Furthermore, this study enriches the literature on generative AI exemplified by models like GPT in the world of international business, particularly within the context of international entrepreneurship. It offers essential insights that can guide international entrepreneurs in understanding the potential advantages of integrating GPT technology into their business operations.

Keywords: GPT; ChatGPT; Artificial Intelligence Technology; Generative AI; International Entrepreneurship; International Business; Communication tool; Knowledge Leverage tool; Strategic Tool; Enhanced performance.
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I. Introduction

I.1. Background

We stand at the beginning of a new era of the industrial revolution as OpenAi recently released in November 2022 their latest technology, called GPT which stands for "Generative Pre-trained Transformer." It refers to a class of language model pre-trained on a large corpus of text data and can generate coherent and contextually relevant responses given a prompt or input text (Raja International Corporation, 2023).

The product is a sensational advancement in artificial intelligence (AI), and big data analytics which are together with the Internet of Things (IoT) and robotics part of the concept of Industry 4.0 introduced by Kagermann et al. (2011). Also referred to as the fourth industrial revolution, it is characterized by the integration of advanced technologies into industrial processes. This notion has gained significant global attention, as industries strive to stay competitive in a rapidly changing market. It’s worth noting that in the aftermath of the COVID-19 pandemic, the digitalization of sectors grew exponentially and a survey showed that digital adaptations had made a leap of seven years according to (McKinsey & Company, 2020). AI technology contributed to vaccine development, triage support, and supply chain management. The growing interest is shown by consequent financial investments such as the €750 billion invested by Next Generation EU to push further the digital transformation, providing unique opportunities for entrepreneurships (Crescenzi et al., 2021).

Artificial intelligence holds a crucial position as these innovations have had a labor-saving effect. Generative AI technologies are described by Andersen (2002) as the manifestation of intelligence by machines that can adapt to shifting situations by executing tasks and solving intricate problems that necessitate human cognitive abilities, reasoning, and predictive capacity. This definition has evolved since introduced by John McCarthy over six decades ago, as he was greatly involved in creating the time sharing system as well as the architecture of many interactive systems and interactive computing shaping the future of AI- according to (Allganize, 2020). In many cases, generative AI frees time and empowers people with the necessary tools that present themselves with superhuman abilities. In doing so, it has the potential to re-humanize work and make it less automatic, giving people more time to be human rather than working as machines (Daugherty and Wilson, 2018). On the other hand, generative AI also holds critical consequences for organizations facing increased pressure in terms of productivity and the need to stay competitive.

This situation may also lead to increases in unemployment and inequality, as it did in the first wave of mechanical automation, disrupting manufacturing and subsequently destroying retail in the second wave of digital innovation (Chalmers et al., 2021). The
direction and size of their impact vary depending on the specific industry, skill level, and country, often benefiting only larger enterprises (Montobbio et al. 2022). As AI solutions shifted from futuristic and exclusive to relatively affordable technologies, aspiring international entrepreneurs and their teams have been able to leverage these capabilities that are now widely accessible and no longer restricted to large corporations (Saran, 2017; Iansiti and Lakhani, 2020).

ChatGPT has amassed 1 million users in just five days after its launch providing access to small businesses bridging the technology gap between smaller and larger organizations according to (Ahmed, 2023). As a result of its impressive capabilities, fast-paced progress is to be expected as enormous financial investments are being unlocked by industry giants (approximately 10 billion dollars from Microsoft) unlocking potential for widespread use for international entrepreneurship as well people working for them according to the article written by (Movement, 2023).

Generative AI, which has the ability to generate new content, such as text, images, or even music, based on the patterns and knowledge it has learned from the training data. (Houde et al., 2020). In the case of GPT, the model can generate human-like responses in over 50 different languages and has been trained on an enormous amount of data (in the case of GPT-3, over 175 billion parameters) according to the article published by (Pike, 2023). By learning the statistical patterns, language structures, and context from the input text, it can generate coherent and contextually relevant responses or continuations given a prompt or input text, allowing it to continually improve its performance over time and making it highly versatile to a wide range of applications (Raja International Corporation, 2023). This generative capability allows GPT to be used for chatbots, content generation, creative writing assistance, dialogue systems, analyzing, automating and more. The technology will be able to have more features that can thrive in an increasingly competitive and technology-driven landscape according to (Movement, 2023). The subsequent applications of GPT within the business field are yet to be researched as this valuable tool has the potential to disrupt the field of international entrepreneurship. The capability to adapt to an ever-changing environment can provide entrepreneurs with new insights and strategies for sourcing necessary resources in a global context.

I.2. Problem discussion

I.2.1. Theoretical problem

Generative language models like GPT offer international entrepreneurs unique opportunities for content creation and entrepreneurial rhetoric, showcasing their ability to mimic CEO archetypes according to the research of (Short and Short, 2023). Providing a diverse set of data that spans across different countries and cultures, offering various avenues for refining presentations and skillfully influencing
The interest in international entrepreneurship has amplified considerably, coinciding with the surge of globalization. This has resulted in an abundant literature related to how international entrepreneurs can adopt a global perspective to thrive in today's interconnected business environment. International entrepreneurship, including the phenomenon of born global firms, holds considerable scholarly interest (Oviatt and McDougall, 1996; Mika Gabrielsson et al., 2008; Knight and Cavusgil 1996). As McDougall and Oviatt (1996 and 2003) define, international entrepreneurship is the "discovery, enactment, evaluation, and exploitation of opportunities - across national borders - to create future goods and services". Gabrielsson and colleagues (2008) have contributed to the understanding of international entrepreneurship by conceptualizing the "born global" firm, which from inception seeks international markets through an aggressive internationalization strategy. This deviates from the traditional model of firms that begin with a domestic focus and then gradually expand overseas.

As GPT and similar generative AI are relatively recent developments, there is a current lack of literature on their application within the field of international entrepreneurship. Nevertheless, frameworks and best practices for using artificial intelligence more generally do exist, and these can serve as a valuable guide for international entrepreneurs aiming to leverage GPT to expand their global presence. Recent research has mapped out the process by which generative AI can be integrated into entrepreneurial activities. Chalmers et al. (2021) delineate key practices and processes that can aid this integration into new ventures. Giuggioli and Pellegrini (2022) advanced this understanding by performing a systematic literature review of all peer-reviewed English papers linking generative AI to entrepreneurship, thus creating an "AI-enabled entrepreneurial process". While these studies might not focus specifically on international entrepreneurship, their findings could still be highly relevant in this context. The decision making aspect, emphasized by Saad Darwish et al. (2020), who highlighted how generative AI can enhance data analysis for entrepreneurs, could be especially important for making informed decisions and strategies for global market entry. This research could assist in comprehending how GPT can be adapted to analyze and interpret global market data, potentially offering valuable insights for international entrepreneurs.

I.2.2. Gap

The use of GPT technology in international entrepreneurship has the potential to revolutionize the way businesses work as well as their teams, research and interactions with customers from different countries and thus different cultures. By analyzing data regardless of the language, and understanding the nuances of language and culture, GPT tools can help international entrepreneurship to do business abroad in various ways. Yet, as this technology is recent, there is a lack of understanding of how international entrepreneurs can effectively utilize GPT in the process of their existing international business models. This results in missed opportunities for growth and expansion and this
knowledge gap poses a new problem for entrepreneurships who wish to stay competitive on the global stage.

I.2.3. Managerial and Practical problematization

The focus on this research is highly relevant as it aims to help international entrepreneurs better navigate the rapidly growing and evolving technology. From a managerial point of view on GPT, it holds a lot of promise in improving the efficiency and competitiveness of entrepreneurs according to the research of (Pawan Budhwar et al., 2023). Previous research demonstrates that generative AI and the labor market are tightly linked in an economic study made by (The White House, 2022), meaning that international entrepreneurs lacking resources could use this technology to cut costs on hiring specialists, paying to outsource work or on the other hand enhance work practices of already established workforce. The occupational impact of generative AI on the labor market comes in different aspects, they showed that these technologies could increase productivity, facilitate financial decisions and access to fundings and boost innovation thus increasing the overall competitiveness of entrepreneurs (Tolan et al., 2021; Mills and Dang, 2021; Dwivedi et al., 2021)

Overall, these studies highlight the unique needs and characteristics of international entrepreneurship along with how generative AI is shaping the business and labor world regardless of the industry. With its adaptability, the benefits of using GPT could be numerous and applicable in various sectors. Yet this research will be focusing on GPT uses in the international business field by investigating the following question:

**How can GPT technology be used to benefit the process of international entrepreneurship?**

RQ1 : In what specific ways can GPT be deployed as a communication tool, knowledge leverage tool, and strategic tool within the international entrepreneurial process?

RQ2 : How do these specific applications of GPT influence decision-making, enhance performance, while taking into account the potential risks and limitations of the technology?

I.3. Purpose

Through an abductive approach, this study aims to investigate the experiences, challenges, and opportunities of entrepreneurs who have implemented GPT technology in their internationalization and born global strategies. This research furthers the field in a number of significant ways.
First, previous studies have created frameworks from systematic literature review, but this study employs qualitative data from 5 businesses and 1 expert in international entrepreneurship. On the other hand, this study employs qualitative data from 5 businesses and 1 expert in international entrepreneurship. This research aims to bridge the knowledge gap and provide real-world guidance on leveraging the technology effectively, hopefully to show how entrepreneurs doing business abroad can benefit at large from GPT technology to improve operational efficiency and competitiveness in the global market.

Altogether this study will contribute to the literature on AI within the field of international business specifically, international entrepreneurship and provides valuable insights which may inform international entrepreneurs regarding the potential benefits of incorporating GPT technology into their business practices.

I.4. Delimitations

To identify how this phenomenon takes place within “real life” a qualitative study will be conducted on six international and born global startups across four countries. The delimitation of this research is focused on startups doing business internationally or Born-Global startups. Our believes, that micro and small businesses operate the same way at the managerial level and that it is possible to consider these 2 categories within the scope of this research; the findings may not be applicable in the case of bigger firms such as SMEs, multinationals or firms doing business locally.
II. Literature review

In this chapter the purpose of this literature review is to analyze the potential benefits and applications of GPT technologies in international entrepreneurship, particularly as a communication tool, a knowledge leverage tool and strategic tool. This review will embark on an expansive exploration of dominant theories and concepts, acknowledging that the utilization of GPT in businesses is a segment of the broader technological innovation surge, a significant subject of recent research literature. As the discussion progresses, the focus will gradually shift towards the distinct implications of GPT technologies in international entrepreneurship.

II.1. Main Theories of International Entrepreneurship and Generative AI

II.1.1. International Entrepreneurship Theory (IET)

International Entrepreneurship Theory (IET) revolves around key principles and assumptions that shape the understanding of entrepreneurship in the context of internationalization. It highlights the importance of opportunity recognition and exploitation, emphasizing the proactive mindset of entrepreneurs in leveraging international resources and market conditions. Effectuation and improvisation play a significant role as entrepreneurs navigate uncertain and dynamic environments. Networks and social capital are crucial, enabling entrepreneurs to access resources and market opportunities through strategic relationships. IET recognizes distinctive types of international entrepreneurial ventures, such as Born Globals and International New Ventures (INV), and emphasizes the continuous learning process of entrepreneurs to acquire international market knowledge. Risk-taking and uncertainty management are inherent aspects of international entrepreneurship, while resource constraints drive entrepreneurs to display resourcefulness. This framework provides insights into the intersection of entrepreneurship and internationalization, shedding light on the challenges and strategies employed by entrepreneurs operating in global contexts (Oviatt and McDougall, 2005; Knight and Cavusgil, 2004; Dimitratos et al., 2009)

The International Entrepreneurship Theory (IET) encompasses several key models that shed light on different aspects of entrepreneurial activities in the global context. The International New Ventures (INV) framework focuses on understanding the factors that contribute to the success of firms that rapidly internationalize. It highlights the significance of entrepreneurial orientation, prior international experience of founders, and the strategic use of external networks and resources in the internationalization
process (Oviatt and McDougall, 1994). In contrast, the Born-global firm theory (Knight and Cavusgil, 1996) challenges traditional internationalization theories, proposing that certain small companies operate in international markets from their inception and perceive the world as a borderless marketplace. These firms possess a global mindset, leverage technological advancements, and target niche markets to achieve rapid international growth. Effectuation theory, developed by Sarasvathy, explores how entrepreneurs navigate uncertain and resource-constrained environments. It emphasizes the utilization of available resources, forming strategic partnerships, and leveraging expert knowledge to create opportunities and enter international markets (Sarasvathy, 2001). These models provide valuable insights into different dimensions of international entrepreneurship, such as the unique characteristics of born-global firms, the strategies employed by international new ventures, and the decision-making process and actions undertaken by entrepreneurs in international business environments according to (Crick, 2009).

All three models acknowledge the significance of market knowledge and adaptation in international entrepreneurship. Born-global firms, firms following the International New Ventures (INV) framework or applying Effectuation theory share a common focus on entrepreneurial orientation in international business. They understand the importance of gaining insights into foreign markets and adapting their products, services, and strategies accordingly. (Knight and Cavusgil, 2004; Oviatt and McDougall, 1994). This orientation, characterized by proactiveness, risk-taking, innovation, and adaptability, can be effectively supported and enhanced through the use of artificial intelligence (AI) technologies.

II.1.2. AI-enabled Entrepreneurial Process

As the internationalization process has gained attention in recent years, various international businesses' expansion have influenced theoretical models. Artificial intelligence (AI) has become a crucial asset in this context. In terms of AI associated within the entrepreneurial process Giuggioli and Pellegrini (2022) have the latest research and furthered the research field by conducting a systematic littérature review of all the peer reviewed English papers existing and linking entrepreneurs to AI. They shed light on what they called the “AI-enabled entrepreneurial process” (Figure 1). This framework illustrates how the integration of AI in the entrepreneurial landscape has given rise to various areas of impact. First, the opportunity cluster emphasizes the role of AI in assisting entrepreneurs with identifying new markets and evaluating their feasibility, streamlining the process of capitalizing on emerging opportunities. Second, the decision-making cluster highlights the importance of AI in enhancing strategic choices and risk assessments made by entrepreneurs, ensuring informed decisions that ultimately contribute to a venture's success. Third, the performance cluster explores AI's potential in improving the overall execution of new ventures, from optimizing operations to maximizing efficiency. Finally, the education and research cluster underscores the
critical role of ongoing learning and research in driving the success of AI-enabled businesses, emphasizing the need for continuous development and adaptation in an ever-evolving technological landscape.

II.2. Generative AI as a Tool for International Entrepreneurship process

II.2.1. Overview of Generative AI in international business

In light of the importance of continuous development and the ever-changing nature of the AI field, it is essential to explore the specific applications of AI technologies in the business domain. Embodying AI into the international business process can transform how organizations operate, improving competitiveness, innovation, and success in a globalized entrepreneurial context (Giuggioli and Pellegrini, 2022). Generative AI in particular is poised to significantly assist small, born-global firms with the breakthrough of GPT innovations, international endeavors can be enhanced in various aspects, colliding with the study of George, A.S. and George, A.H. (2023).

Trained on a massive amount of text data, GPT technology is known for its ability to generate human-like text when given a prompt and therefore can understand and generate coherent and contextually relevant responses, making it a powerful tool for understanding and generating tasks, as emphasized to the research of Ollivier, M et.al., (2023).
Therefore, as a deep learning model it excels in processing sequential data, and offers the potential to revolutionize various aspects of the international entrepreneurship process. Unfortunately, academic resources specifically addressing the application of GPT within the realm of international business are scarce although generative AI has the potential to revolutionize the field of international entrepreneurship in various ways. It has been found that generative AI offers a range of functionalities designed to support various aspects of global operations such as communication, strategy and leveraging knowledge.

II.2.2. Communication Tool

In the fast-paced and interconnected world of international business, effective communication serves as a pivotal tool, fostering innovation, growth, and the achievement of organizational objectives. According to Radovic Markovic and Salamzadeh (2018), for communication to be effective in the context of international entrepreneurship, it's necessary to understand the cultural backgrounds of those you are communicating with. Knowing what may or may not be offensive in various cultures and being aware of proper communication etiquette is essential. In this global atmosphere, international entrepreneurs must navigate various market dynamics, seize valuable opportunities, and build trust with partners, clients, and employees across different regions (Radovic Markovic and Salamzadeh, 2018). Thus, embracing and optimizing communication practices is vital for businesses to not only survive but also thrive in today's competitive landscape, GPT technology can be utilized to enhance these communication efforts, serving as a communication tool that aids international entrepreneurs in maintaining cultural sensitivity and effective communication in their pursuit of global success.

Integrating generative AI like GPT in business communication enhances operations at all levels. GPT's capabilities in text generation, summarization, and content recommendation streamline communication, leading to improved understanding and more impactful messaging. As highlighted in the study by Haleem, A., Javaid, M., and Singh, R.P. (2022), ChatGPT, a chatbot variant of GPT, helps businesses engage audiences, build trust, and foster stronger client relationships. Part of the broader field of natural language processing, ChatGPT uses varied GPT models for diverse data types. Its quick online search capabilities and robust writing skills allow for unique content generation on any topic.

This underlines generative AI's potential to transform international entrepreneurship communication. By utilizing this, international businesses could streamline their communication processes through GPT to enhance comprehension, foster better communication and save time while delivering more tailored and impactful messages, emails or reports. AI-powered chatbots can improve communication by providing quick
and accurate responses to employee inquiries, reducing the workload of human employees, and improving overall efficiency (Pillai et al., 2023; Park and Shchemelev, 2019) further echo these findings, noting that employees appreciate these chatbots for their personalization, interactivity, and perceived intelligence, factors that positively influence their acceptance.

The effectuation theory proposed by (Sarasvathy, 2001) recognizes the importance of overcoming uncertainties in international markets. Nambisan's (2017) study further delved into this core concern within the realm of entrepreneurship and the strategies employed by entrepreneurs—both individually and collectively—to confront it. The study highlights that the transformative influence of digital technologies prompt reevaluation of the traditional methods and structures used to pursue entrepreneurial opportunities. Digitizing entrepreneurial endeavors suggest new processes that are more fluid and less bonded.

Tools like GPT can play a pivotal role in promoting global integration and collaboration. Haluza and Jungwirth (2023) underscores the benefits of artificial intelligence, exemplified in applications like OpenAI's GPT-3, for addressing societal megatrends and enhancing international business operations.

Additionally, GPT's potential to facilitate cross-cultural communication is evident in advancements made in automating multilingual translations. Arivazhagan et al. (2019) in their exploration of the subject, show how these applications improve cross-cultural interactions, a crucial aspect of international entrepreneurship. Furthermore, Brown et al. (2020) demonstrate how the scaling of language models, such as GPT-3 with its 175 billion parameters, significantly enhances task-agnostic capabilities, leading to superior performance in various natural language processing (NLP) tasks. Tools like GPT not only facilitate effective communication among people from different countries but also foster a more interconnected global community. These technologies hold significant potential to facilitate cross-cultural communications, a critical aspect for international entrepreneurs operating in the global arena.

These studies illustrate how AI tools like GPT can enhance the effectiveness of global business communications, increasing their relevance in international entrepreneurship. By addressing language and cultural differences, and reducing uncertainties faced by international businesses, these advancements in AI and GPT align with the principles of effectuation theory, demonstrating their potential in overcoming uncertainties in international markets (Arivazhagan et al., 2019; Brown et al., 2020; Sarasvathy, 2001).

In the context of rapidly internationalizing firms adopting the INV framework or Born Global, personalized customer service in multiple languages becomes a critical need. AI-based chatbots and natural language processing capabilities, such as ChatGPT, not only enhance customer service but also generate insights into customer preferences,
thereby uncovering emerging market opportunities (Huang and Rust, 2018). This highlights the importance of integrating GPT-powered chatbots or virtual assistants into businesses. Such integration allows companies to provide instant and personalized responses to customer inquiries, significantly improving overall customer satisfaction.

A study by Chen et al. (2023) further bolsters this argument. The researchers investigate whether and how the service quality of AI chatbots affects customer loyalty to an organization. Their findings reveal that the service quality of AI chatbots does indeed impact customer loyalty. This suggests that if implemented correctly, AI-powered chatbots can be effective tools in customer retention. As such, the increasing relevance of these AI technologies in global business highlights their potential to transform the landscape of customer service and customer loyalty in international entrepreneurship (Huang and Rust, 2018; Chen et al. 2023).

These GPT models can generate coherent and contextually appropriate responses, making interactions with virtual assistants feel more human-like and enhancing the customer experience regardless of the language and across different markets enabling these firms to engage with their global customers in a personalized and responsive manner. By leveraging this technology in customer service, businesses can streamline operations, reduce response times, and deliver more efficient and personalized support to their customers.

However, despite this potential, it's important to note that GPT technology is in its early stages, and its unsupervised nature can present challenges, such as the potential to generate inappropriate or biased responses. Future research and development are necessary to mitigate these risks while maximizing the benefits of the technology. While the studies discussed provide evidence of the promising direction for the integration of GPT in international business communication, a degree of caution is necessary. It's clear that further studies are warranted to address these challenges as the technology evolves. Consequently, the path to fully realizing the potential of GPT in global business communication may still be a journey of discovery and improvement.

II.2.3. Knowledge leverage tool

In the arena of international entrepreneurship, GPT technologies, as expounded by (Aghion, David and Foray, 2009) serve as potent tools for leveraging knowledge. These technologies contribute significantly to augmenting organizational knowledge management and enhancing employee training, while also stimulating innovation in private technological research. This effectively leaves an imprint on academic research, fostering efficiency and paving new avenues for exploration. Taherdoost and Madanchian (2023) suggest that the integration of artificial intelligence (AI), specifically GPT's capability to process and comprehend extensive textual data, aligns with the
central principles of knowledge management (KM). This enables the capture, organization, and dissemination of valuable knowledge, thereby creating robust knowledge repositories and offering tailored training experiences. Such advancements with GPT technology equip employees with the essential skills to navigate the complexities of an organization (Taherdoost and Madanchian, 2023).

Consequently, GPT technologies indirectly fuel the progress of international entrepreneurship, spurring innovation, broadening commercialization opportunities, and guiding new research and development in the field. One significant factor that generative AI facilitates is the ability to leverage global knowledge. Drawing upon Hånell et al. (2014)'s INV framework, and the theories presented by Oviatt and McDougall (1994), GPT technologies enable the capture and utilization of vast knowledge reservoirs, a critical resource that aids firms in surmounting the liabilities of newness and foreignness - the primary barriers faced by emerging and internationalizing companies. Through experiential learning, organizations can utilize GPT to gradually extend their international reach, starting locally and progressively advancing to more distant markets, thus streamlining their internationalization strategies. By utilizing GPT as a leveraging knowledge tool, international entrepreneurs can develop competitive advantages and create innovative products, services, or business models that can be successful in global markets. Knowledge also plays a crucial role in the internationalization process of INVs framework, as it helps them to identify market opportunities, establish relationships with foreign partners, and adapt to diverse cultural, institutional, and regulatory contexts (Autio and Levie, 2017). According to the "born-global" perspective, the early and rapid internationalization of INVs is often driven by the firm's knowledge and capabilities, which allow them to overcome the constraints of their limited size and resources (Madsen and Servais, 1997; Hånell et al. 2014). As well, the Effectuation Theory by Sarasvathy (2001) values the ability to capitalize on available information and resources, and AI-powered tools like GPT can play a significant role in this regard. For the Born-global model AI technologies like GPT can contribute to providing rapid access to information to bring valuable insights into foreign market dynamics as GPT's language processing capabilities enable it to gather information from the internet, regardless of the language. It can then analyze and process the data to provide a curated output in the form of a ready-to-use paragraph (Frith, 2023).

In the realm of innovation and development, GPT technologies possess immense potential to drive transformative outcomes in international entrepreneurship. Othman (2023) describes how GPT can support innovators by developing new digital accessibility solutions. Together with this, Radziwill and Benton (2017) emphasized GPT's function in generating customized marketing content to improve customer engagement. By leveraging GPT's generative capabilities, organizations can generate fresh ideas, explore new possibilities, and surmount creative barriers. GPT can be utilized in brainstorming sessions to generate diverse perspectives and innovative
solutions to complex challenges. Moreover, GPT's deep learning model can analyze patterns, market trends, and customer feedback, providing insights that drive innovation. Othman (2023) anticipates GPT's enhanced unsupervised learning capabilities and broader application integration as a promising future direction for innovation and development.

In conclusion, GPT technologies serve as significant catalysts in advancing international entrepreneurship. By effectively leveraging knowledge, these technologies enhance organizational knowledge management and employee training, augment innovation, and offer broad access to information. Through the intelligent processing and analysis capabilities of GPT, organizations are enabled to derive insights from vast datasets, fostering a culture of innovation and development. GPT's role in creating personalized marketing content and digital accessibility solutions further underscores its transformative potential. As this AI-driven paradigm continues to evolve, the anticipation of GPT's enhanced unsupervised learning capabilities and its more comprehensive integration into applications presents a promising future direction for international entrepreneurship.

II.2.4. strategic planning tool

Leveraging AI-powered tools like GPT, international entrepreneurs can enhance their monitoring and evaluation processes and use it as a strategic tool. These tools automate data analysis and how it provides real-time performance data, contributing significantly to decision-making (Duan, Edwards, and Dwivedi, 2019). GPT can effectively identify patterns, anomalies, and key performance indicators, thus enabling entrepreneurs to track progress, measure the effectiveness of their strategies, and make data-driven adjustments. This mirrors the Small Business Utopia concept proposed by Mills and Dang (2021), which focuses on automating time-consuming tasks and integrating various performance metrics into a user-friendly dashboard.

For market analysis and competitor assessment, GPT can analyze vast amounts of data from diverse sources, such as news articles, social media, and customer reviews. This capability is critical for international entrepreneurship, enabling businesses to understand consumer behavior and adapt to local demands (Li et al., 2021). GPT, with its ability to provide insights into market trends and competitor activities, aligns with the increasing intersection of digitalization, AI, and entrepreneurship, as emphasized by Blanco-González-Tejero et al. (2023).

In terms of strategy formulation and implementation, GPT technologies prove vital. Utilizing AI's transformative potential and the predictive capabilities of machine learning, international entrepreneurs can formulate effective strategies, make proactive adjustments, and manage potential risks (Boukerouaa et al., 2021b). This approach, along with the integration of AI technologies like GPT into the entrepreneurial strategy,
is especially beneficial for born-global international entrepreneurial firms characterized as early adopters of internationalization (Knight and Cavusgil, 2004). Furthermore, GPT technologies can be beneficial in scanning external forces like PESTEL factors, helping businesses identify risks and opportunities in unstable or conflict-prone regions according to (Matyuk, 2020). This, coupled with the ability to analyze the risks and prospects of AI and robotics in the fourth industrial revolution, emphasizes the necessity of incorporating GPT technologies into international entrepreneurship. The resultant benefits to use GPT as a strategic tool may include improved decision-making, enhanced risk management, and increased operational efficiency, fostering innovation and success in a globally competitive environment.

II.3. Implication of using Generative AI in International Entrepreneurial process

The use of GPT in international entrepreneurship operations has a significant impact on the rest of the AI-enabled entrepreneurial process and shows a link with the decision making and performance of the firm (Giuggioli and Pellegrini, 2022).

II.3.1. Enhanced decision making

In light of the importance of AI readiness assessments identified by Molla et al. (2009), organizations must continually gauge their preparedness for AI adoption. Such readiness assessments help organizations guide the growth of their assets, capabilities, and commitment, providing crucial information for decision-making and reducing uncertainty related to AI adoption. This principle dovetails with the emphasis Jöhnk, Weißert, and Wyrtki (2020) place on the necessity of advanced analytical capabilities for strategic decision-making, though they don't explicitly mention GPT in their study.

The potential value of AI tools like GPT, however, becomes evident when considering their advanced analytical capabilities. These can provide international entrepreneurs with a sophisticated understanding of their business environment, aiding informed decision-making concerning expansion into foreign markets, product scaling, and opportunity exploitation. Such insights align with the trend of data-driven decision-making, an invaluable asset in our fast-paced, unpredictable global market landscape.

Thus, (Molla et al. 2009; Jöhnk, Weißert, and Wyrtki 2020) indirectly underscore the potential benefits of AI tools like GPT in their discussion of AI readiness and the importance of advanced analytics. Consequently, this suggests that organizations can reduce risks and enhance their AI adoption decisions by integrating these two aspects: readiness assessment and the leveraging of sophisticated analytical tools. The role of AI
tools like GPT in this context presents an intriguing area for further exploration in the field of international entrepreneurship.

Anticipating market trends, identifying potential opportunities, and understanding customer behavior across various regions become accessible, empowering international entrepreneurs to make forward-thinking decisions. This ability to forecast and respond to market changes can significantly influence a firm's agility and competitiveness.

II.3.2. Improving performance

Harnessing the power of general-purpose technologies (GPTs) like GPT-4, organizations can realize benefits beyond cost and time savings, such as facilitating collaboration, generating innovation, and supporting multilingual communication. This capability fosters improved understanding among diverse international teams and enhances business relations, negotiations, and network ties. Yet, as Eloundou, T. et al, (2023) points out, the true power of GPTs lies not solely in their cost-saving potential but more significantly in their ability to stimulate economic growth. These technologies open new avenues for innovation, underpinning a positive growth cycle. Therefore, the broad utility of GPTs should be recognized and leveraged to drive sustained development and growth.

By processing vast amounts of information, identifying patterns, and suggesting creative solutions, ChatGPT enables businesses to consider novel ideas that may have been overlooked. Burström et al. (2021) explored the potential of AI to foster innovation and generate new revenue streams in manufacturing firms, findings that can be applied to the entrepreneurial context. ChatGPT, with its generative capability, aligns with these findings by acting as a powerhouse for innovation in international entrepreneurship. Additionally, ChatGPT's ability to generate culturally tailored content enhances entrepreneurs' effectiveness in diverse international markets. As a result, ChatGPT elevates overall business performance by facilitating the introduction of unique and globally appealing products, services, or strategies that differentiate the firm in a competitive landscape.

The integration of AI technology into businesses has proven to yield profit increases and improved strategic choices, highlighting the significant benefits it brings and its positive impact on organizational performance. However, it is important to consider potential concerns and risks associated with AI adoption especially in the context of GPT. Acemoglu (2021) raises valid concerns about the potential harms of unregulated AI, including excessive automation, declining wages, and various social, economic, and
political costs. Ethical considerations, data privacy and security concerns, reliability and accuracy of generated content, overreliance on AI for decision-making, and unequal access to AI technology are all factors that need to be carefully addressed in order to ensure responsible and beneficial implementation of AI in business operations.

II.4. GPT as a tool for the International Entrepreneurship process

After conducting a thorough analysis of the existing literature on business models for small firms operating in foreign markets, it has become evident that there are various approaches and goals that these models pursue. However, upon further investigation, there are several common problematic that businesses face when selling abroad, regardless of the international business model they choose. As the potential impacts and uses of GPT technology are investigated on international businesses and entrepreneurs, a key aspect is understanding how this technology can be a versatile tool since more than 300 billion words of books, articles, journals, web, texts have been fed into ChatGPT, there’s a lot of advantages that can enter the toolbox to help new entrepreneurs or small businesses. There’s a lot of key findings and implications. For that reason 3 main clusters are identified, they allow for international entrepreneurs to put GPT technology in use within their entrepreneurial process

All in all, these findings demonstrate the expanding body of knowledge on this subject and its practical implications. The integration of AI into international entrepreneurship gives significant opportunities decision-making and overall performance. It is crucial to recognize the challenges and benefits of the integration of AI’s in order to effectively utilize this technology. By accumulating a deeper understanding of its role in entrepreneurship, GPT could be a powerful tool to drive ventures' success in a dynamic global environment.

The framework consists of four key components. Firstly, it includes a Communication Tool that aims to facilitate cross-cultural communication, enhance business negotiations, and support customer service. Secondly, there is a Knowledge leverage tool, which focuses on organizational knowledge management, employee training, and accessing global data to foster innovation and development. The third component is a Strategic Tool that encompasses market analysis, competitor assessment, strategy formulation, implementation, and ongoing monitoring and evaluation. Lastly, the framework highlights several implications, such as enhanced decision-making through analytical capabilities and insights, as well as improved performance by saving costs, time, and improving quality. Overall, this comprehensive framework aims to optimize the operations of international entrepreneurship along their process.
Figure 2: GPT as a tool for the international entrepreneurship process (Lallee & Muco, 2023).
III. Methodology

In this chapter lays out the methodological framework used to examine the potential applications and benefits of GPT technologies in international entrepreneurship. We'll outline our research approach, discuss the data collection techniques, and detail the analysis methods chosen for this study, all geared towards investigating GPT's role as a communication, knowledge leverage, and strategic tool. Following a discussion on the study's operationalization and data analysis, the chapter concludes with a critical evaluation of the study, providing insights into GPT's distinct implications in international entrepreneurship.

III.1. Research design

The research design constitutes a plan formulated to address specific inquiries (McCombes, 2019), it delineates the way a researcher examines the core issues of the study, creating an integral component. Within the qualitative research methodology, there's a variety of study designs that exist, including case studies, archival analysis, surveys, historical research, and experiments (Yin, 2018). As Yin describes in his book, a case study is an in-depth examination of a subject or phenomenon within its real-world context. The case study research may encompass various subjects, such as a group (work team), an individual (a manager), a partnership, an organization, or other subject types.

Through a focused contextual analysis, using a multiple-case study design, researchers can delve into the profound effects of phenomena like GPT technology on entrepreneurs conducting international business across a variety of contexts. This methodological approach fosters an in-depth understanding of the complex interplay between AI technologies and international business practices in diverse countries or cultural environments.

By conducting a detailed examination of unique characteristics, a multiple-case study design, unlike its single-case and comparative counterparts, zeroes in on identifying common patterns and best practices across a spectrum of cases. This approach facilitates a comprehensive study of the phenomenon across diverse contexts. Applied in the context of generative AI technologies like GPT, this design explores how such technologies can enhance international entrepreneurship within various environments. It probes specific use cases, discerns potential advantages and shortcomings of the technology, and delves into its effects on aspects like internationalization, innovation, and competitiveness in multiple settings.
III.2. Qualitative research

Given the complexity of the GPT technology's impact on economic growth and inequality across different nations, opting for a qualitative research methodology (Doz, 2011). Qualitative research allows to explore the "how," "who," and "why" of individual and collective organized action as it unfolds over time in context, thus enabling to uncover the processes and dynamics within the international entrepreneurship and AI technologies like GPT (Adner, 2017; Adner and Kapoor, 2010; Jacobides et al., 2017; Giuggioli and Pellegrini, 2022). This exploration will include studying the three themes from our conceptual framework: the use of GPT as a communication tool, a strategic tool, and a knowledge leverage tool.

To capture rich, "thick" process descriptions and to facilitate the development of new theoretical insights, the research design incorporates case studies (Doz, 2011). The in-depth interviews will be conducted with key individuals within international entrepreneurship, such as managers, their teams, the CEOs, to gather their insights and experiences with GPT (Chalmers et al., 2021; Staccioli and Virgillito, 2021b).

By doing qualitative research an abductive approach enables the examination of GPT technology's impact through a variety of theoretical lenses, shedding light on different aspects of the phenomenon, while also encouraging new conceptualizations and theoretical developments (Doz, 2011; Dubois and Gadde, 2002). In-depth qualitative data collection, including interviews and case studies, will provide the foundation for the iterative, constant comparison and recursive interplay between empirical data and emerging theoretical insights (Doz, 2011).

This will facilitate a deeper understanding of how GPT tools's implementation affects the functioning and decision-making in international entrepreneurial firms, involving not only the entrepreneurs but also their teams. By adopting a qualitative research methodology, this approach uncovers the intricate dynamics between international entrepreneurialships and generative AI technologies, ultimately contributing to the development of new theoretical insights and a better understanding of the phenomenon.

III.3. Abductive Approach

Given the thesis focus on the impact of GPT technologies on international entrepreneurs, their teams, and business leaders such as managers and CEOs during their business operations, and specifically how the technology aids in facilitating effective decision-making and improving performance, an abductive approach to case research is deemed a suitable methodology. This approach, as created by Dubois and Gadde (2002), combines deductive and inductive reasoning to develop a coherent explanatory theory for a specific case. The use of AI, like GPT, in entrepreneurship and innovation ecosystems
(Adner, 2017; Adner and Kapoor, 2010; Jacobides et al.) can be better understood and evaluated through this combined reasoning approach. The interdependencies among various components of international entrepreneurship present complex and dynamic phenomena that warrant a flexible research approach. In the context of GPT, an abductive approach enables one to investigate its influence on different components of international entrepreneurship while taking into account the diverse and evolving nature of AI technologies. This approach is particularly suitable, as existing theories in AI and entrepreneurship may not fully explain the observed patterns, and new insights could emerge during the research process. The abductive approach allows for refinement through the theoretical framework in response to new findings and adjusts to the research focus as needed (Giuggioli and Pellegrini, 2022). Moreover, the abductive approach aligns with the study's emphasis on knowledge spillovers, which have implications for international entrepreneurship (Acs et al., 2014; Autio and Levie, 2017). By examining the impact of GPT on knowledge spillovers and the interplay between AI technologies and entrepreneurship, we can gain valuable insights into the dynamics of international entrepreneurship and its relationship with AI advancements.

III.4. Purposive sampling

To gather data for the research, a meaningful sample that represents the population is selected. This selection aims to answer the research question and meet our objectives in a meaningful way" (Becker, 1998). There are numerous different kinds of sampling methods to choose from depending on the research that is being conducted. For instance, Saunders et al. (2019) suggest that when conducting research related to a specific brand, the population of interest consists of all the owners of that particular brand. The sample method chosen should be representative of a subset of these owners. By carefully selecting the sample, it becomes possible to draw conclusions about the entire group of owners of that specific tablet brand. In the context of this research, the sampling method that has been selected is purposive sampling. Also known as judgmental or selective sampling, this non-probability technique involves selecting participants based on specific criteria relevant to the research objective (Saunders et al., 2019).

The aim of this research method is to identify employees who satisfy the criteria relevant to the study. Specifically, these individuals need to be operating within the realm of international entrepreneurship in companies consisting of 1 to 100 employees, and should have had experience with GPT technologies within their organizations. The adoption and promotion of generative AI as an integral part of their operations is a key requirement. It is imperative that the interviewees from these companies have been leveraging GPT technology or other types of generative AI for a duration of 3 months or longer to ensure they have ample experience and insight into the practical use and impact of these technologies on their business operations. This length of time would provide a
sufficient understanding of the integration, utilization, and outcomes of AI technologies in the context of their specific international business practices. Furthermore, Companies engaged in international entrepreneurship are expected to possess an active presence in international markets, demonstrated through maintaining international clientele or executing operations in 2 countries minimum with the allowance of additional countries. In addition to this, individuals are required to possess a minimum of 2 years' experience within their respective sectors, with the allowance for additional years, to effectively identify and highlight the significant changes that the implementation of GPT has brought about.

Once potential participants are identified based on these criteria, the most relevant or informative cases will be selected for the study. This sampling approach is more suitable for the objectives than other techniques, such as convenience sampling, snowball sampling, or random sampling. Saunders et al. (2019) and Patton (2015) explain that by utilizing certain specific criteria, rich and comprehensive data on the subject matter can be collected. This makes it possible to gather rich, in-depth information about the topic of interest, which allows for a deeper understanding of the impact of AI technologies on international business practices. Additionally, this approach helps enhance the internal validity of the study by selecting participants based on their relevance to the research objectives and their potential to provide meaningful insights into their experience with GPT. Lastly, through selecting a diverse range of employees within international entrepreneurship that meet the criteria, a more generalized understanding of ChatGPT can be developed.

Based on the predetermined criteria for purposive sampling, the study includes a heterogeneous sample of professionals related to international entrepreneurship. Participants were five in total: three employees from different sectors within the context of international entrepreneurship, a serial entrepreneur, and an expert in export development. The participants were diverse in terms of their roles, experiences, and knowledge of AI. The employees represented various functional areas such as sales, account coordination, and logistics, each bringing their unique perspectives. Their experiences with AI varied, with some being in the early stages of AI use within their roles, while others were more seasoned. Notably, the serial entrepreneur was also a recognized expert in AI, holding the dual role of President at Gdańsk University of Technology and Co-Founder and CEO at a SaaS company. This participant had given a TED talk on generative AI, underscoring their deep knowledge in the intersection of AI and entrepreneurship. Lastly, the expert participant worked in export development at a French Government Agency, bringing unique insights about the integration of international trade and entrepreneurship.

All participants provided informed consent to participate in the study. Some requested anonymity, which has been respected throughout the research process. No compensation
was provided for their participation. This diverse array of participants provided a rich tapestry of insights, making substantial contributions to the research on AI's role in international entrepreneurship. Participants were not subjected to identical lines of questioning in the semi-structured interview, as the questions were tailored to their unique experiences. However, we made efforts to maintain a consistent structure by sending follow-up questions via email. Based on the predetermined criteria for purposive sampling, the following international entrepreneurial companies and respondents as the primary sources have been identified and selected and are presented below.

III.4.1. Case 1: Neoteric - Matt Kurletto

Neoteric, established in 2005 and located in Poland, is a tech partner company that specializes in software development and innovation. With a team of 63 top software engineers, they assist clients in almost 90 countries kickstarting their projects and achieving their objectives, drawing from their experience in generative AI, blockchain, SaaS, and enterprise software. Since 2021, they have actively been using generative AI and have worked on over 50 projects worldwide, including the creation of three VC-funded startups and enterprises. Matt Kurletto, the CEO and Co-founder of Neoteric, has been involved in the IT field since his childhood. He has been the founder of three startups and is currently working as President at Gdańsk University of Technology and Co-Founder and CEO at SaaS Manager.

III.4.2. Case 2: A prominent Scandinavian online healthcare equipment provider - Anonymous Head of Logistics

The Scandinavian e-commerce company specializes in providing healthcare and fitness equipment online, serving customers across multiple European countries. With a team of 8 dedicated professionals, they ensure the smooth operation of their logistics and customer service. Our interviewee, who holds the position of Head of Logistics, brings a valuable perspective to our thesis. With 2 years of experience in the field, their insights shed light on the practical application of GPT in their daily tasks, particularly in customer service. While choosing to remain anonymous, their firsthand understanding of how GPT is utilized in the e-commerce sector provides a crucial perspective for our exploration.

III.4.3. Case 3: Skie Solution Pty Ltd - Arthur Backouche

Skie Solution a specialist cloud service company founded in 2020 with 50 employees, based in Australia that specializes in Salesforce. Customizing their solution based on each client through actively using Generative AI (ChatGPT and Einstein GPT) since the company was founded. Working with companies within the APAC region (Singapore and Thailand) and England. Arthur Backouche, recently hired as a senior marketing manager
cloud consultant, has been working within the Salesforce industry for three years now and has been actively using Generative AI for 4 months since the start of his job.

III.4.4. Case 4 : VASS PR - Anonymous PR Agent

Vass PR is a communications agency with 53 employees based in Sweden and Norway, founded in 2011. The company offers their services in helping brands find cultural relevance, digital marketing and events specializing in the beauty and health sectors. They have clients all over the world looking to break into the Swedish and Norwegian market. The anonymous agent that works in Vass has been working within the industry for more than two years and has confirmed that the company encourages the use of generative AI, specifically ChatGPT. The firm has no issues with feeding their data into a Generative AI tool for various purposes.

III.4.5. Expert view : French government agency assisting SMEs in German exports

A French government agency supports the international development of French businesses and promotes foreign investment in France. It serves international companies looking to expand their operations in France or establish business partnerships with French companies. The anonymous specialist, working in Export Development in the tourism, sport, and leisure sector at the agency, is an independent actor for the government. They have been actively using generative AI for almost four months to aid French SME’s in their exports endeavors.

III.5. Operationalization

The operationalization of this qualitative research study involves a clear plan for how to translate the research questions and objectives into concrete interview questions and procedures.

To begin, the first research question (RQ1) aims to identify the specific use cases of deep learning technologies like GPT in international business. Given the distinct needs of each entrepreneur and small business model, there exists a diverse range of potential uses of GPT tools in international business. To account for this diversity, the first cluster of uses is divided into three distinct sub-concept indicators that represent common challenges faced by international entrepreneurs regardless of their structure or business models: evaluating, opportunity seeking, and communicating. The operationalization of this research question involves developing a set of semi-structured questions for each sub-concept to explore how GPT and other deep learning technologies can be used in international business.

The second research question (RQ2) focuses on the potential implications of using chat-GPT like technologies for international business. As demonstrated by (Giuggioli and
Pellegrini, 2022), performance and decision making are impacted by AI on the entrepreneurial process. Therefore the questions aim to determine the direct impact that the use of Chat-GPT-like technology has on the entrepreneurial process and specifically on the decision-making and performance. A set of semi-structured questions will allow for the sample to explore the direct implications that GPT has for each use.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Questions</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information</td>
<td>1-5</td>
<td>The interview will start with getting to know the general information about their organization.</td>
</tr>
<tr>
<td>Strategic tool for internationalization</td>
<td>6-8</td>
<td>Questions will explore whether GPT aids international entrepreneurs in global market analysis, competitor assessment, strategy development and implementation across different markets. This is in order to comprehend how GPT is used to scan foreign market external forces (PESTEL) and identify Opportunities and risks create opportunities</td>
</tr>
<tr>
<td>International knowledge leverage tool</td>
<td>9-11</td>
<td>This category focuses on whether GPT contributes to better knowledge management and innovation within international firms and enhances the training of employees in a global context</td>
</tr>
<tr>
<td>International Communication tool</td>
<td>12-16</td>
<td>The questions aim to assess if GPT assists international entrepreneurs in bridging communication gaps across cultures, facilitates business negotiations in diverse markets, and improves customer service on a global scale.</td>
</tr>
<tr>
<td>Implication on the decision-making part and performance part of the process</td>
<td>a, b</td>
<td>The final category investigates if GPT provides international entrepreneurs access to wide-ranging information and data, offers analytical insights into global markets, and aids in identifying and addressing business challenges in the international realm. Additionally it seek to investigate if it helps international entrepreneurs generate innovative solutions to global business challenges, encourages cross-border collaboration and knowledge sharing, all contributing to improved performance of their international ventures</td>
</tr>
</tbody>
</table>

It is important to note that questions based on the decision-making and performance are asked right after the specific sub-concept questions. This will help to understand the direct implications that GPT has for each use and allow for a comprehensive analysis of the data. The operationalization of this research study involves careful planning and attention to detail to ensure that the interview questions and procedures are focused, relevant, and yield meaningful insights into the research questions and objectives.
III.6. Data collection

When collecting data, researchers must carefully consider the analysis of secondary data as they strive to collect the most suitable information to address their research questions and achieve their objectives (Saunders et al., 2019). The secondary data can refer to information that was initially collected for a different purpose and includes both summarized publications and raw data. Once collected, these secondary data can be then reanalyzed to derive additional or alternative insights, conclusions or interpretations (Bishop and Kuula-Luumi 2017; Bulmer et al. 2009).

The primary data collection can be done through semi-structured interviews, which is the main focus of this research. Researchers also acknowledge the value of incorporating secondary data into their analysis. By utilizing secondary data alongside primary data, researchers can gain additional perspectives and insights, enriching the overall findings according to Saunders et al. (2019).

In this study, the primary data will be gathered through semi-structured interviews, allowing for in-depth exploration of the participants' experiences and perspectives. These interviews will provide valuable firsthand information directly relevant to the thesis objectives. Additionally, secondary data from online sources within the participants' companies will be collected and analyzed, contributing to a comprehensive understanding of the research topic. By combining primary and secondary data, researchers aim to triangulate their findings, enhance the validity of the results, and provide a more robust analysis of the application of AI technologies, like GPT, in the context of international entrepreneurship.

The utilization of these predefined themes can vary, contingent upon the philosophical assumptions of the researcher. For this study, an approach aligned with realism is adopted, based on the belief that there is an external truth to be discovered that transcends the interpretations of the participants (Saunders et al., 2019). This approach encourages a structured and consistent conduct of semi-structured interviews, systematically exploring each theme with every participant. Such a method allows for the comparison of participants' responses to each theme, with the aim of unveiling the underlying reality. As well, the themes used in the semi-structured interviews are derived from existing theory, commencing the data collection deductively (Saunders et al., 2019). The intention is to test this theory in the unique context of the research. This necessitates the consistent use of these theoretically-deduced themes in each interview, to yield comparable and valid data to assess the applicability of the theory in the research context.
The interview process involves identifying and contacting potential participants fitting the selection criteria, which revolves around international entrepreneurship with experience in generative AI technologies, specifically GPT, in their international operations. The participants are then presented with an interview schedule comprising the key themes to be explored and indicative questions to aid their preparation.

The questions, designed to be open-ended, aim to coax participants into sharing their experiences, perceptions, and opinions in their own words. These questions revolve around their use of GPT, the impact on their business operations and performance, their international business strategy, and the challenges faced in integrating GPT into their business. The interviews will be conducted in an environment conducive to open conversation, ensuring the collection of rich, nuanced data that can provide valuable insights into the application of AI technologies, like GPT, in international entrepreneurship practices.

### III.7. Quality of research

To ensure that the research meets the standards of quality and integrity, applying from The Evaluative Criteria proposed by Lincoln and Guba (1985). This involves establishing trustworthiness through four key dimensions: Credibility, Transferability, Dependability, and Confirmability.

**Credibility** Within the study will be achieved by ensuring that the data collected accurately reflects the participants' experiences and perspectives. The semi-structured interviews, crafted based on an extensive literature review and operationalized theoretical framework, aim to capture the 'truth' of the participants' experiences with GPT. Furthermore, the use of the clusters from the framework that has been created in the literature review and the theories from the findings will provide a credible theoretical lens through which to interpret the data.

**Transferability** will be ensured by providing a detailed description of the research context, methodology, and findings. This allows others to understand the applicability of the findings in different contexts. The use of the "born global" firm theory can also provide a universal framework that enhances the transferability of the study.

**Dependability** This refers to the consistency of the findings. To achieve this, involves maintaining a clear and transparent way of documenting every step of the research process, from the development of the interview guide to data collection and analysis. This will allow others to understand the conclusions and potentially repeat the study in the future.

**Confirmability** will be achieved by maintaining neutrality throughout the research process. Ensuring that the findings are shaped by the participants' responses and not influenced by biases, motivations, or interests. This will involve reflexive practices to
manage any potential bias, and cross-checking the interpretations with participants, where feasible, to validate the findings.

By applying the Four-Dimension Criteria (FDC) to the study, with the aim to enhance the rigor and quality of the findings. This will not only increase the reliability and validity of the research but also contribute to a better understanding of the role of AI technologies like GPT in supporting the rapid internationalization of new ventures.

### III.8. Method of data analysis

In qualitative research analysis, the data collected from the semi-structured interviews will be analyzed using a thematic analysis approach to provide meaningful insights into the impact of ChatGPT on international entrepreneurs, their teams, and business leaders such as managers and CEOs during their business operations. Thematic analysis, as developed by Braun and Clarke (2006), is characterized by its flexibility and applicability across various research questions and contexts.

The thematic analysis process involves six stages: familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun and Clarke, 2006). For instance, initial codes might include 'use of GPT in decision-making', 'GPT as a strategic tool', or 'GPT as a knowledge base tool'. These codes could then be grouped into broader themes such as 'Role of GPT in strategic planning as a tool', and 'Utilization of GPT as a knowledge leverage tool' and 'Utilization of GPT as international communication enhancement tool'. Lastly the 'Impact of ChatGPT on decision-making and performance'

Carefully following these stages by Braun and Clarke (2006), the study will ensure the validity and reliability of the findings. By allowing the research to make sense of the rich and complex information gathered during the interviews and reveal meaningful insights into the role of GPT in supporting international entrepreneurship. The process of thematic analysis and coding will contribute to the development of new theoretical insights and a deeper understanding of the impact of AI technologies on international entrepreneurial contexts.

### III.9. Ethical considerations

Regarding the ethical considerations as it forms the cornerstone of any researcher endeavor, according to (Mohd Arifin, 2018) it is safeguarding the welfare and rights of participants involved in the research. They are particularly significant in qualitative research due to its immersive and personal nature, that often delves deep into participants' experiences and perceptions (Mohd Arifin, 2018). In the research, exploring the experiences of entrepreneurs with GPT, these considerations take center stage. Recognizing that they might share the sensitive nature of some information, having to
put in place stringent measures to uphold anonymity for those who wish to remain private.

Furthermore, be committed to avoiding bias throughout the research process. Understanding the influence of preconceived notions or unconscious biases can potentially harm the study findings, therefore striving to approach each interview with an open mind, seeking to understand and record the participants' experiences as authentically as possible. Moreover, the comfort level of participants and willingness to share will be provided with options that they are comfortable with. To accommodate this, the options are provided for them, for the interview settings that best suit them.

All in all, the ethical considerations aim to foster a respectful, unbiased and secure environment for participants, facilitating the collection of reliable and genuine data.

**IV. Empirical findings**

The empirical findings of this study shed light on the experiences, opportunities, and challenges faced by international entrepreneurship through the utilization of Generative Pre-trained Transformer (GPT) technology. The overarching research objective was to examine the specific ways in which GPT can be deployed as a communication tool, knowledge leverage tool, and strategic tool within the international entrepreneurial process. Furthermore, this investigation aimed to explore how these applications of GPT influence decision-making, enhance performance, and consider the potential risks and limitations associated with the technology.

The following research questions were explored through semi-structured interviews with a diverse group of participants selected to ensure a maximum variety of viewpoints:

_**How can GPT technology be used to benefit the process of international entrepreneurship?**_

RQ1: In what specific ways can GPT be deployed as a communication tool, knowledge leverage tool, and strategic tool within the international entrepreneurial process?

RQ2: How do these specific applications of GPT influence decision-making, enhance performance, while taking into account the potential risks and limitations of the technology?

To accurately present the empirical findings, a case-by-case approach will be employed. Each interviewee had a distinct way of utilizing GPT technology, and different departments within their entrepreneurial ventures were found to utilize the technology in
varying ways. By presenting the findings on a case-by-case basis, the uniqueness and diversity of the participants' experiences and perspectives can be effectively showcased, providing a comprehensive picture of the empirical data. In the subsequent sections of this thesis, the empirical findings will be discussed in detail, highlighting the specific applications of GPT as a communication tool, knowledge leverage tool, and strategic tool within the international entrepreneurial process. Additionally, the influences on decision-making, performance enhancement, and the risks and limitations associated with GPT technology will be explored.

IV.1. Case 1: Neoteric - Matt Kurletto

Neoteric, a Poland-based tech partner established in 2005, is a leading provider of software development and innovation solutions. Their expertise spans across generative AI, blockchain, SaaS, and enterprise software. With a dedicated team of 63 experienced software engineers, they have successfully assisted clients from nearly 90 countries in achieving their project objectives. Our interviewee, Matt Kurletto, is the Co-founder and CEO of Neoteric. With over a decade of experience in the IT field and deep knowledge of AI technologies, he is widely recognized as an expert in the field and has been invited to speak at prestigious events such as TED talks and the Generative AI summit in London. Neoteric frequently leverages GPT technology to support startup companies with their projects.

As the CEO of Neoteric, Matt outlined the diverse uses and impacts of GPT models in the operations of his company. As his company is known for implementing artificial intelligence in international businesses, Neoteric leverages GPT models for multiple purposes ranging from scalability to communication, to marketing, and decision-making. A crucial aspect Matt emphasized was the use of GPT models for the scalability of operations, particularly in international contexts. Neoteric applies GPT as a proof of concept, helping to validate innovative solutions. "So proof of concept is an approach to implementing RandD projects. It works in a way that you take a subset of the problem and solve it on a smaller scale before you implement it across the organization," explaining the strategic integration of GPT models in their operational and international business strategies. As it is crucial in creating scalable solutions while also navigating the inherent complexities of AI technology in business processes.

Also touching on the use of GPT in decision making processes, where its communication tool specifically in its language processing capabilities enable it to analyze complex patterns and provide valuable insights, stating "So you can also use them because of the language processing patterns, you can find them in other areas than communication. So, for instance, in creating molecules, you have those textual patterns that you can use, or
analyzing DNA," indicating how GPT can be used in a much broader area than just used as a translation tool and communication tool.

The CEO, notably mentioned the use of GPT in his company marketing strategy and how it has been fruitful. The company utilized these models to generate content, guiding customers through their AI journey. While addressing the possibility of using GPT for adapting to new markets, Matt stated, "That could be an interesting case to validate. If Chat GPT can rephrase the whole page to address a new market better, theoretically yes, but... I have never used it and I am not sure if current models would be capable of it, because cultural differences are very hard to cross reference with.". Indicating that while the concept is theoretically possible, it has not yet been tested due to the challenge of accurately reflecting cultural differences, which might be a limitation of the current models.

However, he acknowledges that the application of GPT models is not without its challenges. "So, chat GPT is an interface based on this foundational model, and doesn't have very much of a context, and is only trained with old data, meaning more than two years old. And that's why it has important limitations in being used," Matt cautioned.

IV.2. Case 2 : Scandinavian online healthcare equipment provider - Anonyme Head of Logistics

An E-commerce Scandinavian online provider of healthcare and Fitness equipment, with a staff of 8 people. The E-commerce company sells their supplies in various countries in Europe. Our interviewee is the head of logistics, with an experience of 2 years, his insights are relevant to the thesis. As he has confirmed, in his daily tasks, particularly in customer service, he regularly utilizes GPT. Although he has opted to remain anonymous, his unique understanding of the practical application of GPT in the e-commerce sector offers a critical perspective in our exploration.

Findings :

The head of logistics revealed the advantages and limitations of using GPT, specifically ChatGPT. According to the interviewee, ChatGPT is primarily used for customer service purposes, particularly in processing customer emails and providing quick answers to frequently asked questions. For one we can translate stuff pretty easily. And we mostly use it for customer service. Like the emails we get we can process with ChatGPT and it gives our customers quick answers with questions that we know will pretty much be the same every time like “Where is my order?” “Will it arrive?” demonstrating the time-saving aspects of using generative AI, as it reduces the need for manual handling and response generation by customer service personnel. Furthermore, the head of logistics revealed the use of ChatGPT as a plugin into the company’s email program.
(API), that allows for seamless communication between the AI tool and the existing infrastructure.” *It's ChatGPT but we use it like a plugin. It goes into our email program, so it's connected so it's integrated in Missile.* “. This integration ensures that the communication process remains efficient and streamlined for the international clients and their operations.

However, the interviewee also reveals current limitations of ChatGPT in the company's operations. While it has proven effective in customer service tasks, its application is restricted to specific areas. The head of logistics mentions that they have not utilized ChatGPT or similar GPT technologies for identifying risks and opportunities across borders, comparing companies to international competition, or managing international logistics operations.”*No, not really. Since we primarily dropship our products, the majority of the shipping and logistics operations are handled by the suppliers themselves. ChatGPT or similar technologies are primarily used to help us maintain visibility and control over the whereabouts of the shipped items.*” Indicating that the company relies heavily on suppliers for most of its logistics operations, as ChatGPT serves more as a tool for maintaining control and visibility over the whereabouts of shipped items rather than for strategic-making.

Additionally, The interviewee mentions that it's not currently used for optimizing routes, forecasting demand, supply chain risk management or marketing strategies. Stating that the company’s sole focus appears to be on utilizing ChatGPT to streamline customer communication and enhance email formulation when dealing with international clients. “*No, no, not at the moment. No. We only keep a few products at hand, they are at our suppliers' warehouse, so we don't keep stock.*”. Suggesting that while generative AI has shown its potential for broader strategic application in supply chain management and marketing strategy remains largely unexplored as it is still at an early stage.

The head of logistics experience demonstrates that generative AI has proven to be beneficial as a communication tool, its usage within the company appears to be in specific areas of customer service rather than broader strategic applications. GPT solutions is still in its early stages as previously mentioned, the company is currently conducting test runs to assess the accuracy and effectiveness of using it for optimizing routes, forecasting demand, supply chain risk management, and marketing strategies.

**IV.3. Case 3 : Skie solutions - Arthur Backouche**

Skie Solution Pty Ltd, is a cloud services company specializing in Salesforce based in Australia, providing CRM (Customer Relationship Management) and enterprise solutions, founded in 2020 with a staff of 50 people. They work a lot with Australian companies. As well with companies within the APAC region in Southeast Asia and work
with a company based in the UK. The interviewee that will be interviewed is Arthur Backouche who is a Senior Salesforce Marketing Cloud Consultant that works for Skie Solution with experience in the industry for around two to three years. As well have a background in digital marketing and in computer science. He is relevant as he has stated that he uses ChatGPT quite often in his daily bases of work-tasks, and has expressed in several ways how he uses the technology to help with his international clients.

Findings

Arthur Backouche, emphasized the importance of using deep learning natural language processing (NLP) tools, such as ChatGPT, in his international business operations. He revealed that his company works mostly with ChatGPT and other AI solutions to implement new software like Salesforce, which provides CRM and enterprise solutions for their clients. ChatGPT serves as a way for customers to automate processes and acquire insights related to their products. "Let's say we set up a product for the customer; the customer will want to understand how the project is performing. Generating insights from the data, we use ChatGPT as the software to obtain valuable metrics and information related to the customer."

In addition to other tools he works with, the interviewee said that he utilizes another variant of ChatGPT called Einstein GPT, a generated AI for CRM. ChatGPT has benefited the company financially by saving time and generating content such as documentation and coding, ultimately leading to increased revenue. Arthur stated, "ChatGPT helps us generate more revenue by saving time." He also mentioned how ChatGPT is utilized to analyze software performance, generate reports on marketing campaigns, and evaluate salespeople's performance, stating, "We are using ChatGPT to generate reports on paid advertising campaigns that will tell us if our advertising is performing well or not."

Although not directly using ChatGPT to compare to competitors or identify opportunities and risks in other international markets, Arthur has found it helpful in specific tasks such as rephrasing emails and writing blog posts both at work and outside of work. He acknowledges that, despite the benefits, the main challenge with ChatGPT is ensuring accuracy due to the data being outdated since most of its information on people, places, or facts is from 2021.

However, even with the occasional inaccuracy of ChatGPT, Arthur still finds the tool to be reliable when trained on specific datasets and a helpful tool for communication, especially for non-native English speakers. He stated, "I would say it's a good way to interact with external people in the way you want. If English is not your first language, it's a good translation tool."

Arthur's experience overall demonstrates the versatility of ChatGPT in his international business operations. By generating valuable insights, enhancing communication, and
automating tasks, ChatGPT has contributed to increased efficiency and productivity in the global market of Salesforce.

Findings for Case 2:

**IV.4. Case 4 : VASS PR - Anonyme PR Agent**

VASS PR is a communications agency based in Sweden and Norway, specializing in the beauty and health sectors. With 6 employees in Sweden and 47 in Norway, the company was founded in 2011 and is composed of experts in public relations, online marketing, brand development, and event production. VASS serves clients from all over the world looking to establish their presence in Sweden and the Nordic region. The Interviewee has stated that she uses ChatGPT quite often in her daily bases of work-tasks, and has expressed in several ways how she uses the technology to help with her international clients.

**Findings :**
The anonymous agent, who specializes as a client coordinator, stated that ChatGPT has been a valuable asset in generating creative content, such as press releases, Instagram captions, and coming up with ideas when planning events. Notably, it has facilitated language translations, for example, English to Swedish and vice versa because "It's a better alternative than Google Translate," as she expressed, allowing for seamless communication with international clients, specifically in responding to emails. "It's not that I wouldn't come to the same conclusions on many things, it's just that I don't have the time to fit everything in," the interviewee mentioned that since she works under a lot of time pressure, ChatGPT eliminates the pressure by helping her come to the point faster (saving research time). With this, ChatGPT has helped in organizing events and creating time plans, which improved the overall efficiency of her work. She also found that the tool has been beneficial in generating content customized to clients' cultural contexts, despite not having used it explicitly for identifying cross-border market opportunities.

However, the concerns raised about ChatGPT are that it's not always 100% reliable, as the general information is outdated and not up to date, and that the formal content in Swedish is not up to par with the modern Swedish language. The interviewee stressed the importance of human oversight because of these concerns in refining the AI-generated content to ensure its suitability and accuracy.

According to the interviewee, she feels that ChatGPT can offer significant benefits for her when dealing with the tasks that have to do with her international clients. The technology helps overcome language barriers, enhance creativity, and streamline project management. While there are some challenges and concerns related to the information provided and content accuracy, the potential of ChatGPT in the field of international communication is undeniable.
IV.5. Anonym Expert view: French government agency for Export

Our anonymous participant is part of a French government agency focused on enhancing international business growth for French firms and attracting foreign investment. Working in Export Development within the tourism, sport, and leisure sector, this specialist offers key insights. They've been utilizing generative AI for about four months, specifically using it as an assistive tool to support the export activities of French SMEs. Given the nature of their role, their perspective provides a unique understanding of the real-world applications of AI in the sphere of international business and government-led trade initiatives.

Findings:
The participant operating in a renowned state agency that aid business in their exports endeavors, specializing in the sports business and tourism industry revealed extensive utilization of ChatGPT, emphasizing its crucial role in helping him understand diverse, industry-specific topics. His work encompasses a vast range of services and products, making AI a beneficial tool in managing this extensive information.

One of the main tasks he utilizes the AI for involves uncovering specific regulations linked to various products across different markets. As he describes, "I write these specific words on ChatGPT. For example, "Can you help me find all the different regulations that are special about that product". However, he noted an important drawback regarding the AI's lack of access to the most recent information: "the last actualization they did was the last year, 2021 and when doing regulations we need fresh information as regulations change every 2 years maximum."

The subject noted the generative AI's method of relaying information could sometimes be not optimally aligned to his needs, but he found its neutrality commendable. He stated, "It does not take into account stereotypes. One time for fun. We asked Chat GPT, 'What do you think about the French?' And he said, 'I cannot give you my opinion, but the French are a country based on democracy"'.

Regarding the use of generative AI in businesses, our participant was an advocate, highlighting its impact on customer service and generating business insights. He highlighted the success of a company in his line of business with a similar technology to ChatGPT, stating "It is a rising interest in my line of work"

Within his own workplace, ChatGPT usage is not only accepted but actively promoted. "We use it all the time and the organization encourages and recommends it", he commented. This highlights the AI's role in forming a valuable information database for their business needs.

In conclusion, while the participant sees ChatGPT as an invaluable resource in his professional life, particularly in accumulating information across varied markets and
products, he acknowledges its limitations, such as outdated regulation data and lack of personal opinions. These gaps underline potential areas for AI model improvements, indicating a keen interest in the continued evolution of this technology.

V. Discussion

V.1. Reflection on the process of analysis

During the interviews, various types of data were collected, including rich narratives, experiences, and challenges faced by the participants in utilizing GPT technology within their international entrepreneurial endeavors. Subsequently, these interviews were transcribed using an AI-enabled software, facilitating an efficient and detailed analysis of the data. The transcriptions served as the basis for a rigorous coding process, where common themes, patterns, and key findings were identified. (Appendix D, E, F, G) This systematic approach allowed for a comprehensive understanding of the empirical data.

The coding and theme development process employed an abductive approach, involving an iterative exploration between existing theory and the unique concepts of GPT technology. Initially, a set of predefined codes and themes was established based on theoretical frameworks. However, as the interviews progressed, the questions were tailored to accommodate participants' job titles and specific contexts. To organize the data, the Delve software was employed, enabling a systematic arrangement and analysis of the interview data. This software offered a platform that facilitated efficient management and retrieval of coded segments, thereby supporting a comprehensive and collaborative analysis. To maintain coding consistency, multiple iterations were carried out, involving thorough reviews of the transcripts and visually mapping codes to their corresponding sections of text, establishing a robust coding framework. The saturation point, indicating no new themes or codes emerging, was determined by the point at which successive interviews yielded redundant information and no novel insights were obtained.

As interviews progressed, responses began to converge, and recurring themes and codes emerged. The initial overarching theme, grounded in the potential applications of GPT technology, underwent refinement and adaptation throughout the coding and theme development process. Themes were reworked to align with the unique insights and perspectives derived from the interviews and its particular applications in the field of business. The thematic analysis process involved systematically organizing and categorizing the codes into higher-level themes that allowed for a deeper understanding of the various aspects of GPT technology within the international entrepreneurial process.
A Comprehensive understanding of each overarching code is provided Appendix D, E, F and G with the color coding used during analysis:

- Appendix D compiling the codes for “Utilization of GPT as international communication enhancement tool” color coded in blue.
- Appendix E compiling the codes for “Utilization of GPT as a knowledge leverage tool”, color coded in gray
- Appendix F compiling the codes for “Role of GPT in a tool for strategic planning” color coded in orange
- Appendix G compiling the codes for “Implications for international entrepreneurship”, color coded in Green

V.2. Theme 1: 'Utilization of GPT as international communication enhancement tool'

The codes "Enhancing business communications," "Facilitating cross-cultural communication," and "Customer service" were grouped together to form the theme of "Communication Tool." This theme highlights the ways in which GPT technology serves as a tool to enhance communication within international entrepreneurial activities. It encompasses the utilization of GPT to improve business communication practices, facilitate effective cross-cultural communication, and enhance customer service management.

Through Conversational assistance and its natural language ability it facilitates customer service practices as highlighted by both the Head of Logistics and CEO Matt Kurletto. "it gives our customers quick answers with questions that we know will pretty much be the same every time" says the Head of Logistics while Matt Kurletto explained that using it in customer service was the most obvious use case of generative AI in business as "GPT are quite good in understanding different ways of phrasing a question and extracting the right answer [...]. Colliding with (Huang and Rust, 2018) statement on how AI-based chatbots and natural language processing capabilities, such as ChatGPT, not only enhance customer service but also generate insights into customer preferences. Export expert also confirmed this information stating that "It's a rising interest in [my sector], There are humans behind it of course but it is a solution that a lot of establishments are looking for as it is working very well.”

In alignment with Nambisan's academic work (2017), which asserts that considering the entrepreneur's venture alongside digital technology constructs help in the intricate connections among the intricate connections among human, social, and institutional, thus reducing uncertainty within the entrepreneurial process. Haluza and Jungwirth (2023), also emphasize the importance of AI tools such as GPT in addressing societal
megatrends and reducing uncertainty regarding social behaviors when operating within international business operations. Matt Kurletto supports the theory by explaining that “algorithms based on GPT are quite good in understanding any type of request”. The technology sees through the intricacies and barriers that human interactions bring. Despite different ways of phrasing a question the technology is able to extract the right answer regardless of the wording and lexical field used.

Furthermore, as discussed in the study by Qian Chen et al. (2023), a connection was discovered between the service quality of AI chatbots and customer retention. This observation further emphasizes the significance of qualitative chatbots, which are essential in elevating customer engagement and loyalty. This highlights GPT’s efficiency as a great tool, "the feeling of talking to this virtual agent is much closer to a human interaction, which is much preferred by the end user" (Matt Kurletto, 2023).

What sets GPT models apart from any predecessors and demonstrates their transformative potential for international entrepreneurship is their ability to generate responses for customers in any language, relying on the internal data they are fed. According to AI expert Matt Kurletto, firms can rely on "GPT model to generate responses for your customer in any language [...]. GPT models can provide you with accurate, at least unmatched accuracy of translations". This Parallels the academic work of Arivazhagan et al. (2019) on automating multilingual translations and shows the potential to facilitate cross-cultural communication which can be essential in international entrepreneurship given their global customer base. This effective real-time translation tool allows for effective cross-cultural communication with customers. He brings up the fact that "[The translation capability is] a game changer especially for companies providing commodities that need instructions for safety or Q&A. You can generate your instructions in one language and have users ask about the qualities of the product and the possibilities of using it with their native language."

Head of logistics confirmed that saying that "[To have a chatbot answer in any language is] the main point since we're gonna be operating in Some countries that don't really speak English". The export expert reports making use of three different languages in the same conversation in his process of helping companies export. "It will automatically respond to the language used and answer according to the information provided" he states. Similarly to Brown et al. (2020) showcasing the increased performance of scaled language models like GPT-3 in a variety of natural language processing tasks, significantly enhances task-agnostic capabilities. The PR agent assured that it has facilitated international communications and that "if you don't like the tone, you can ask it to change and adjust it accordingly" as she tried to adjust communication content on the American market, mirroring Haleem, A., Javaid, M., and Singh, R.P. (2022) research that highlights GPT’s capabilities using a chatbot variant of GPT as our interviewees have used, can facilitate their businesses to engage and foster stronger client relationships. Given its robust writing skills in combination with having capabilities in
text generation, summarization, and content recommendation, it seems to allow for a unique generation on any topic that is given by the user.

However both the export and AI experts point out the lack of cultural grasp of the chatbot in some situations. "The emails ChatGPT writes are correct. Especially in French, but [...] In German the email is not completely correct, although a fluent German would get the point, it is too long, too formal and not adapted to the German working culture" says the export expert to which the PR agent add "Some texts in Swedish can be a bit old fashioned". Matt added that "[cross cultural communication] could be an interesting case to validate. If Chat GPT can rephrase the whole page to address a new market better, theoretically yes, but... I am not sure if current models would be capable of it, because cultural differences are very hard to cross reference with." Radovic Markovic and Salamzadeh's (2018) research complements this view, highlighting the crucial role of cultural awareness in international entrepreneurial communication. They suggest that it's essential to understand cultural norms, circumvent possible missteps that could cause offense, and adhere to acceptable communication practices. It appears that international entrepreneurs would need to comprehend varying market dynamics, capitalize on opportunities, and foster trust across multiple regions when opting to utilize GPT when entering a new market.

Regardless, all participants agreed that the model has facilitated everyday communications whether it comes to writing email, reports, press releases or glossary. Head of logistics explains that it helps "trying to formulate a tricky email. You can just go through ChatGPT, and make sure you get everything you want to say to be said correctly ", the PR agent brings up the fact that it helps with idea generation by coming up with ideas she didn't think of. The unparalleled accuracy of translations, as explained by Matt Kurletto, and its alignment with academic research, reinforces the transformative role of GPT in international entrepreneurship. Still, the challenges related to the cultural adaptation of AI tools should not be overlooked. While GPT can competently manage language translations, its grasp of nuanced cultural practices remains a work in progress.

Despite these limitations, there's a unanimous agreement on the value that GPT aids to daily communication tasks, from drafting emails and reports to generating press releases. As businesses continue to evolve in this digital age, the utility and application of GPT will likely continue to expand, underlining its potential to redefine the landscape of international business communication.

V.3. Theme 2 : Utilization of GPT as a knowledge leverage tool

The theme of "Knowledge Leverage" emerged from the combining of the following codes : "Access to wide information & data," "Organizational Knowledge Management
& Employee Training," and "Innovation & Development." This theme underscores the significance of GPT technology in empowering international entrepreneurs to access diverse information and data while leveraging knowledge within their organizations, ultimately fostering innovation and development.

In the context of international entrepreneurship, the accumulation of Firm-Specific Foreign Market Knowledge (FMK) is crucial for successful internationalization efforts. FMK refers to the specific knowledge related to operating in foreign markets and understanding their unique dynamics. This concept was explored in the study by Hånell et al. (2014) and stresses the importance of foreign market knowledge in the internationalization process of ventures. GPT technology plays a significant role in facilitating access to worldwide information and data necessary for the accumulation of FMK. AI expert and TED speaker Matt Kurletto explains “With chatGPT, a regular person who is not technical can interact with the model to create any kind of responses based on the prompt that you give it, […] it generates a report of information relevant to your question”. International ventures gain access to a wealth of valuable insights, not only limited to their local context and associated keywords but on a global scale. As referred by Frith (2023) GPT’s language processing capabilities enables it to gather information and process the given data to provide a curated output. Seeking opportunity on global markets is an essential part of international entrepreneurship as presented by Aghion, David, and Foray (2009), and van Dis et al (2023) where they mention how GPT serves as a powerful tool for leveraging knowledge in the global arena. Through GPT's translation capabilities, international entrepreneurship overcomes language barriers and taps into information and data sources from various regions and cultures.

The Head of Logistics brought up the importance of FMK acknowledging and stated, “We have a mother company that's already operating in [foreign] countries. So we got a lot of help from them”. Additionally, the Export expert highlights the importance of GPT for gathering specific market knowledge. He states, “It enables you to have all the information in one place such as the biggest competitors of that sector or the regulations of a product.” He adds that “when ChatGPT is not able to give you the answers, he will give you websites or actors that are able to help you,” demonstrating GPT's role in guiding research. Othman (2023) describes the potential of GPT to support innovators by developing new digital accessibility solutions such as information management. The Head of Logistics attests to the utility of GPT in improving performance and gathering data faster than before. He states: “As our competitors' prices are online we can use ChatGPT to gather some of the competition prices”. However he could not confirm if those in charge of the expansion were utilizing GPT technology; their internationalization plan was engaged before GPT became prominent.
Other empirical findings suggest that GPT's translation capabilities could potentially allow international ventures to explore markets in various aspects. The PR agent gives a specific example of finding a certain location due to GPT's translation abilities, "As I was looking for a specific type of venue, ChatGPT found one that I had not been able to locate by myself. I was looking for the venue with English words but the designation on the website was in Norwegian." This anecdote showcases the practical value of GPT's broad application integration mentioned by Othman (2023). This enables entrepreneurs to gain a deeper understanding of international markets, identify opportunities, and adapt their strategies accordingly. The ability to access and comprehend a wide range of information and data from different linguistic sources enhances the ventures' knowledge base, supporting the learning-by-doing process in international business operations.

All in all the platform allowed for a wide range of specific knowledge, in various industries across various data and scan it in different languages. It is platforming general knowledge regardless of the language and creating a report of the most relevant information. It was found that in participant answers, all were precautionous with the results given by the technology. Matt Kurletto explains that the chatbot can answer requests within the frame of the data it has been trained on. However, both the PR agent and the Export Expert emphasize the need to verify the accuracy of the information since the technology has shown instances where it may provide inaccurate results - a notion that underlines the complexity of managing extensive textual data as noted by Taherdoost and Madanchian (2023).

Arthur Boukache does not personally utilize GPT for scanning global information, but the companies he works for employ the technology to manage organizational knowledge. He states, "By utilizing GPT, we can gain insights into the salespeople's work processes and identify ways for them to improve their performance." This speaks to Taherdoost and Madanchian (2023)'s observation on the utility of AI in knowledge management (KM), where KM enables the capture, organization, and dissemination of valuable knowledge. This particular use case of GPT is corroborated by Matt, who explains, "Internal process automation and improvement are also provided, especially in cases where there are complex processes involving multiple actors. An interface like ChapGPT can answer people's direct questions about how to follow the process. Instead of reading lengthy instructions, they can verify if their chosen approach aligns with the process." Here, Matt is highlighting the benefits of AI-enhanced KM as noted by Taherdoost and Madanchian (2023). The Export Expert supports this utilization theory by explaining that the state organization he works for has indeed approved the use of the technology to promote knowledge sharing. He states, "[The state export organization] encouraged us to use it with our company email address as the questions and answers that we collectively feed into it create a database of knowledge, benefiting the entire organization in terms of specific questions related to specific industries." This aligns with Hånell et al. (2014)'s INV framework, emphasizing the critical role of knowledge
reservoirs in aiding firms to overcome the liabilities of newness and foreignness. Matt Kurletto also explains that GPT models, acting as potent tools for leveraging knowledge can support firms by analyzing texts, videos, and conversations to extract valuable insights. His statement is corroborated by Aghion, David, and Foray (2009) and van Dis et al (2023). Matt Kurletto showcase this with the example of patient-doctor interactions or salespeople, stating that “you can have a model trained on previous conversations transcripts that were successful and unsuccessful, and the model could provide insights and arguments that they can use”.

The Export Expert expresses satisfaction with the use of ChatGPT, emphasizing its ability to provide accurate answers and tools by leveraging the collective information gathered by the team. This collaborative approach, echoing the Effectuation Theory by Sarasvathy (2001), enables the extraction of innovative and effective solutions. Arthur Backouche underscores the time-saving benefits of leveraging ChatGPT in code development and documentation creation, in line with the suggestions of Taherdoost and Madanchian (2023). He says, “We can rely on ChatGPT to generate code snippets or write documentation, streamlining the process and freeing up our time for other important tasks”.

Together, these testimonies highlight the significant impact of streamlined knowledge flow facilitated by GPT-based technologies in enhancing innovation within organizations. This aligns with the "born-global" perspective of early and rapid internationalization driven by firm's knowledge and capabilities (Madsen and Servais, 1997; Hånell et al. 2014), reinforcing the importance of AI-powered tools such as GPT in overcoming constraints due to limited size and resources. By harnessing the power of GPT models, businesses could leverage collective knowledge and global access that empowers international entrepreneurship to make informed decisions, capitalize on emerging opportunities, and develop a comprehensive understanding of international markets, potentially opening avenues in bolstering their internationalization efforts.

V.4. Theme 3 : Role of GPT in a tool for strategic planning

The combination of the codes "Monitoring and evaluation," "Market analysis and competitor assessment," and "Strategy formulation and implementation" gave rise to the theme of "Strategic Tool." This theme showcases the strategic potential of GPT technology within the realm of international entrepreneurial process. It includes using GPT for monitoring and evaluating business operations, conducting market analysis and competitor assessments, eventually aiding in formulating and implementing strategic plans.
Arthur Backouche sheds light on the implementation of GPT technologies within their company: "[We use GPT solutions for] everything related to paid media performance, email marketing campaign, Facebook ads, or Google ads, we want to get an overview of how the campaign is performing. So by using GPT to generate reports it gives us insight on how well our advertising is performing." This aligns well with the findings of Duan, Edwards, and Dwivedi (2019) which states that tools like GPT automate data analysis and provide real-time performance data, contributing significantly to decision-making. Based on the functionalities of GPT solutions, it can be assumed that these solutions can enable the streamline aggregation of data to generate metrics and insights that are valuable to evaluate the performance. This assumption is in similarity with the Small Business Utopia concept proposed by Mills and Dang (2021), which focuses on automating time-consuming tasks and integrating various performance metrics into a user-friendly dashboard.

The Head of Logistics shared that ChatGPT or similar technologies are primarily used to help maintain visibility and control over the whereabouts of the shipped items. This is in its early stages but they are exploring ways to use it in this context. Matt Kurello expands the application of GPT beyond physical products: "We are exploring some generative AI approaches within supply chain management solutions that we're building for our customer, especially within tracking the environmental trail of different cases in the process so that you can actually understand what is the environmental impact of the whole value chain." This suggests potential for deep data analysis extends beyond organizational operations, potentially making GPT a critical tool for international entrepreneurship by enabling businesses to understand consumer behavior and adapt to local demands, as mentioned by Li et al., 2021. Additionally Haluza and Jungwirth's (2023) findings indicates that AI can significantly enhance our understanding of megatrends, offering insights into their temporal evolution and potential solutions, though further research is needed to determine its efficacy in addressing them effectively.

These findings show the potential versatility and applicability of GPT technology across multiple business functions and fields, from advertising performance tracking to supply chain management and environmental impact tracing, reflecting a trend of increasing GPT integration in modern business practices. In the current business landscape, GPT models while still very experimental are proving to be great tools as stated from the interviewees, redefining various operational processes, as evidenced by their use in logistics and market prospection. The Head of Logistics highlights the utility of GPT models for comparative analysis in international markets: "We tried to analyze the price of the products and see a link with competition that has the same products [...] we could scan every country and see what their price range is for the same products." This process is not without challenges, but the team was able to establish a working methodology with a supplier using consistent article numbers across different regions.
In this scenario, the firm is leveraging GPT technologies to analyze vast amounts of market data to adapt to local demands, reinforcing its critical role in international entrepreneurship (Li et al., 2021).

The Export Expert supplements this by detailing how ChatGPT is used for weekly market prospection: "[In my branch] I use it for prospection [...] it enables me to identify the big actors, the regulations, the best sellers, the competition and where they are located." The expert also used the model to clarify regulations surrounding the production of foie gras in Germany. This demonstrates how GPT models are becoming instrumental in offering insights into market trends and competitor activities, aligning with the increasing convergence of digitalization, AI, and entrepreneurship (Blanco-González-Tejero et al., 2023). Further to this, the expert's utilization of ChatGPT in identifying big actors and regulations aligns with the literature, which suggests GPT technologies' benefits in scanning external forces like PESTEL factors. These capabilities help businesses identify risks and opportunities, even in potentially unstable or conflict-prone regions (Matyuk, 2020). In this perspective, the use of ChatGPT for prospecting, regulation analysis and risk assessment should be considered by entrepreneurs.

Furthermore, GPT models have been demonstrated to be crucial in strategic planning and implementation for the interviewees, offering deep and comprehensive insights based on user-provided context. AI expert Matt Kurletto outlines an example of how to use ChatGPT to generate pertinent questions about a company's strategy: “Ask me three main questions about my strategy based on which you will generate a list of in-depth questions to generate important insights from the company.” He further elaborates that this application was tested as a proof of concept in a telecom project before executing the actual implementation. This supports the literature's assertion of AI potential in formulating effective strategies and managing risks which are concepts of the essence for firms such as born-global or international entrepreneurs (Boukherouaa et al., 2021b; Knight and Cavusgil, 2004).

The Export Expert and the PR Agent share similar experiences, explaining how they asked ChatGPT to provide solutions to problems or create a marketing strategy tailored to a specific locale. The Export Expert noted: “I am facing a problem. What would be the solutions for me? and then he detailed all the five he said in my opinion I would do this; and he articulated different solutions with a step by step process.” The PR Agent also asked ChatGPT to think of things they may have forgotten when making a time plan or schedule, demonstrating GPT's potential for proactive adjustments in strategy.

Moreover, the PR Agent illustrated the context sensitivity of ChatGPT, explaining that when they requested, “my customer is located in Paris, write a marketing strategy that will answer their needs”, the AI model crafted a strategy taking into account the Parisian context. This level of customization is emblematic of GPT's potential for
predictive capabilities in strategy formulation, further validating the views presented in the literature. GPT models can be seen as powerful tools to utilize as strategic tools and might enhance operational efficiency, but in caution should be viewed as aids, not replacements for human insight. As the PR Agent cautioned, "GPT is not 100% reliable; you still have to have the human touch at the end." The Agent further highlighted that important numbers for comparison with competitors might not be readily accessible. Arthur echoed this sentiment, arguing that "For simple tasks, GPT solutions could suffice, but for technical or highly complex tasks, human intervention would still be preferable over GPT. The optimal approach, in my opinion, would be to train staff to utilize ChatGPT in order to generate more results."

Nevertheless, the Export Expert added another layer of complexity, highlighting that data fed to GPT may not always be up-to-date, stating, "But these data are from 2021 and regulations change mostly every two, three or maximum five years." This underlines the need for continuous data updates and validation to ensure the accuracy of GPT's output in the future. Despite these challenges, the advantages of GPT as a strategic tool cannot be overlooked. They might include "improved decision-making, enhanced risk management, and increased operational efficiency," thus potentially fostering innovation and competitiveness in a global environment. However, the usage of such advanced AI technologies should always be accompanied by human oversight and intuition, ensuring the balance between AI utility and human expertise is maintained for the most accurate and beneficial results.

V.5. Theme 4: Implications for international entrepreneurship

Based on the framework proposed by Giuggioli and Pellegrini (2022) regarding the implications of GPT technologies on the international entrepreneurship process, it becomes evident that artificial intelligence (AI) plays a significant role in empowering entrepreneurs throughout their journey. Applied in the context of international entrepreneurship, GPT technologies not only find application across the entire process but also have the potential to enhance operations. Consequently, the use of GPT solutions as a communication tool, knowledge leverage and a tool to build strategy enhance the decision making.

V.5.1. Implication on the decision making

The utilization of GPT solutions over the 3 themes raised earlier has resulted in significant benefits. It has addressed uncertainties and provided valuable insights to individuals interviewed. The PR agent acknowledged gaining valuable insights for the American market through the use of ChatGPT as she states that “[ChatGPT] does have
an influence on the final result of what we would provide for your customers” where tools helped in determining the better budget option based on provided input.

Arthur emphasized the potential of GPT in gaining insights into salespeople's work processes while Matt provided an example of how GPT transforms human conversation into data, allowing pharmaceutical companies to gain better insights of their medicines. Last but not least Matt provided a crucial example of how GPT analytical insights were revolutionizing the business field. He discussed the process of using GPT as proof of concept in addressing technical and organizational insecurities. Companies could test their products, service, processes through a GPT build algorithm to verify its effectiveness. He explains that “the solution has to prove that the technique that we created within artificial intelligence will actually drive the business KPIs as intended” Once successful, the solution could be scaled across the entire organization or data set. Another notable use case he evokes involves generating human-understandable insights from data, enabling businesses to obtain actionable steps based on analytical data and contextual information. Instead of custom reports or BI systems, GPT offers a virtual agent that can answer direct questions “So instead of building custom reports or reporting in BI systems, you can have a virtual agent that will answer your question based on your different data points. Turning your analytical data into actionable steps that you can implement in your business” Matt says.

Overall, the application of GPT solutions has demonstrated its potential ability to enhance decision-making processes by facilitating knowledge extraction, and providing actionable insights across various industries which confirms Giuggioli and Pellegrini (2022) theories of the AI-enabled entrepreneurial process.

V.5.2. Implication on the performance

As a result of enhanced decision making participants in the study unanimously agreed that GPT tools offered significant improvement on their performance whether by saving time, generating revenues or improving quality which aligns with Giuggioli and Pellegrini (2022) research as they show that AI-enhanced decision making has an impact on the performance.

For instance, the Export Expert emphasized that ChatGPT saved a substantial amount of time in their work, estimating that it could reduce 10 days' worth of work to just 9. He viewed ChatGPT as a tool that assists in gaining time and accessing information that may not be easily accessible, but he also acknowledged that it could never replace the human decision-making factor. Similarly, the Head of Logistics highlighted the time-saving aspect of GPT technologies, mentioning “[Comparing competition prices] for 40,000 articles would take up to three months to do and we did it [...] only in two hours. And it was accurate.” This efficiency enabled them to streamline their operations and reduce the need to hire additional customer service personnel. In the case of Arthur,
leveraging ChatGPT to generate automated content facilitated revenue generation by saving time. By utilizing ChatGPT to develop code snippets and create documentation, they were able to free up hours that could be dedicated to other crucial tasks, thereby enhancing their overall productivity. This time-saving aspect extended to building marketing strategies as well. The PR agent also expressed the positive impact of GPT technologies on their work. They observed that by using ChatGPT, they spent less time on writing and idea generation, enabling them to respond to emails more quickly. They highlighted the efficiency gained in organizing events and emphasized that the time pressure they often faced limited their ability to conduct thorough research. ChatGPT helped them reach conclusions faster by providing succinct information. To sum it up, the PR agent finished by stating "It just facilitates things" simplifying the process of creating for example one-pagers for companies by automatically condensing the pitch into a single page.

The feedback provided by each interviewee's experience lends support to Othman's (2023) prediction regarding potential future directions for GPT, particularly the aspects of scaling up and enhancing performance

The implication of GPT technologies on the international entrepreneurship process on top of saving time, has had a significant effect on the economic benefits for organizations. The Head of Logistics and Matt both highlighted the potential of GPT technology in customer service, the Head of Logistics specifically stated : "[We] create something that can answer the easiest questions, so we don't need an actual customer service person" This implies that utilizing ChatGPT can result in increased efficiency and cost savings for businesses. Additionally, Arthur recognized the revenue generation potential of ChatGPT by emphasizing its ability to save time. This suggests that by leveraging the technology, organizations could optimize their operations and allocate resources more effectively, ultimately leading to improved financial outcomes. Moreover, the Export Expert highlighted the financial benefits for entrepreneurs assisted by the State Organization he is working for. ChatGPT's role in providing faster access to information enables the completion of tasks in a shorter time frame, resulting in reduced billing time for clients. This exemplifies how GPT technologies could contribute to increased efficiency and cost-effectiveness, translating into tangible financial advantages for entrepreneurs. These statements convey the positive implications of GPT technologies, such as ChatGPT, on the international entrepreneurship process, leading to a likelihood of enhanced economic benefits for organizations and their clients. Aligning with Eloundou, T. et al, (2023) statement on GPT’s true power not only lies on cost-saving but also has potential to stimulate economic growth.

Ultimately, both Matt and the PR agent reached a consensus regarding the positive impact of ChatGPT and recognizing its ability to enhance quality. Matt expressed his observation that the increasing popularity of ChatGPT led businesses to explore the potential benefits of generative AI. They sought to leverage this technology to improve
their competitive advantage and optimize internal processes, striving for excellence. Similarly, the PR agent acknowledged the practical benefits of ChatGPT, particularly in written communication. They noted that using the tool facilitated the composition of well-written emails and enabled them to convey their points more effectively, resulting in time savings. These statements collectively emphasize the value of ChatGPT in improving overall quality and efficiency, providing businesses and individuals with an edge in their respective domains. Aligning with Burström et al. (2021) research exploring the potential to foster innovation and generate revenue streams when using AI.

V.6. Discussion of findings

The findings of this thesis illuminate the substantial role of GPT technology and its potential as a strategic tool, a communication tool and a tool to leverage knowledge. Utilizing these elements could ultimately result in improved decision-making, consequently leading to potentially enhanced performance throughout the operations of the international entrepreneur.

The experiences shared by Arthur Backouche, Matt Kurletto, the Head of Logistics, the Export Expert, and the PR Agent provides a panoramic view of GPT's versatility and its potentials. From conducting market analysis and competitor assessments to enhancing business communications and facilitating cross-cultural communication, GPT can be expected to be a transformative tool for them in their international endeavors. It has not only streamlined logistical processes and aided in strategic planning but also improved client relationships, addressed cultural nuances, and promoted knowledge sharing within their organizations.

Moreover, GPT, as a tool for knowledge leverage, contributes significantly to the accumulation of firm-specific FMK, aiding ventures in making informed decisions and identifying emerging opportunities. Its data-driven insights and ability to analyze vast amounts of data from diverse sources are instrumental in understanding consumer behavior, adapting to market dynamics, and fostering innovation. However despite the wide-ranging benefits, it's important to address the limitations and challenges associated with GPT technology. There’s still a need for human intervention in complex tasks as all of the interviewees shared the same opinion; accuracy of information can be outdated since 2021, and the requirement for up-to-date and validated data are some areas that warrant further exploration. The testimonies serve as a reminder that, while GPT is a valuable aid, it is not a substitute for human expertise and oversight.

The integration of GPT technology into international entrepreneurship could present significant benefits, reshaping the landscape of international business communication, strategic planning, and knowledge management. It aids in fostering innovation and competitiveness in a globally competitive environment, thus leading to increased
operational efficiency and improved decision-making. As GPT technology continues to advance, international entrepreneurs need to seize its strategic applications while acknowledging the importance of human oversight. Further research could delve into the challenges of cultural adaptation, data accuracy, and the fine balance between AI and human expertise. These findings contribute to the ongoing discourse on the intersection of AI, digitalization, and entrepreneurship, offering a nuanced understanding of GPT's role in the evolving global business landscape.

V.6.1. Responding Research Questions

In response to the research questions, the thematic analysis identifies several ways GPT technology can be deployed within international entrepreneurship, ultimately benefiting the process in significant ways.

Regarding the first sub research question (RQ1), GPT's applications span across the spectrum of strategic tool, communication tool, and knowledge leverage tool. As a strategic tool, GPT assists in evaluating business operations, conducting market analysis and competitor assessments, and facilitating the formulation and implementation of strategic plans. It aids in generating reports, providing real-time performance data on the given data from the user, and maintaining visibility and control over logistics, which exemplify its strategic applications as well save time.

As it has been said by the interviewees and in alignment with existing literature, this suggests GPT can be seen as an effective communication tool, enhancing business communications and fostering stronger client relationships. With its vigorous writing skills, multilingual translation capabilities, and natural language processing (NLP), GPT addresses cultural nuances and improves overall communication practices. It proves valuable in facilitating cross-cultural communication, ensuring effective interaction across diverse markets. Furthermore, GPT acts as a knowledge leverage tool, providing access to a wealth of information and data. This empowers ventures to accumulate firm-specific foreign market knowledge, make informed decisions, and identify emerging opportunities. By promoting knowledge sharing within organizations, GPT encourages innovation and enhances competitiveness.

Addressing the second sub research question (RQ2), from the findings that were discovered from the themes and the existing literature. These applications of GPT could directly influence decision-making and enhance performance while also illuminating the potential risks and limitations of the technology. GPT's data-driven insights contribute to informed decision-making and improve operational efficiency. It enables businesses to adapt to market dynamics and trends, fostering innovation and competitiveness but should be used in caution as the data is slightly outdated as mentioned earlier. However, its limitations, including the need for human intervention in complex tasks, accuracy of information, cultural adaptation, and the requirement for up-to-date and validated data, pose certain risks.
In conclusion, GPT technology, despite its challenges, provides substantial benefits for international entrepreneurs. Its strategic, communicative, and knowledge-leveraging applications contribute significantly to the entrepreneurial process, aiding in performance enhancement and informed decision-making. However, it is essential to maintain a balance between the utility of AI and human oversight, ensuring optimal results and sustainable growth in an evolving global business landscape.

V.7. Limitations

As the available time and sample size limited further exploration into the versatility and application of the technology, the team acknowledged the potential benefits of a larger sample for greater validation. Due to the novelty of GPT technology in the entrepreneurial landscape, many ventures were in the early stages of adopting the technology, resulting in limited awareness of its diverse applications. Additionally, no interviewee made report of A/B testing of their solutions in order to empirically show the benefits of the technology.

Furthermore, the research encountered a lack of ethnical differences between the companies interviewed as the participants were all based in European countries. This may have constrained the depth of analysis regarding cultural and regional considerations in the integration of deep learning technologies. A broader range of companies representing diverse ethnic backgrounds and cultural contexts would have provided a more comprehensive understanding of the challenges and opportunities associated with the technology's use across different regions.

Another limitation the research team was faced with was the scarcity of scholarly resources and frameworks specifically focusing on generative AI in the context of international business. The lack of extensive literature addressing the intersection of these two domains hampered the ability to draw upon established theories or frameworks, necessitating the adaptation of concepts from related fields. These limitations highlight the need for further research to explore ethical dimensions and establish a robust scholarly foundation to guide the integration of generative AI, such as GPT technology, into international business strategies and practices.

V.8. Recommendations for future research

Further research on the integration of deep learning technologies into existing international business strategies and practices can shed light on the potential benefits and challenges associated with their adoption. By conducting a comprehensive case study analysis of the application of Chat GPT in the ecosystem as a whole, researchers could explore the various levels at which this technology can be utilized. This analysis would involve examining how Chat GPT is employed in different domains of a same
company such as customer service, virtual assistants, and content generation, among others.

Moreover, it is crucial to investigate the potential dangers associated with such technologies in the protection of personal data and addressing biases in the information generated by Chat GPT. These areas are important and require further exploration in the context of international business in order for businesses and policymakers to implement appropriate measures to safeguard user privacy and ensure the responsible use of deep learning technologies.

Finally, research on how deep learning technologies can be effectively integrated into existing international business processes with a focus on specific applications would enable organizations to leverage their potential while mitigating potential drawbacks. This type of research would contribute to a more informed and responsible adoption of deep learning technologies in the business context.

As global marketplaces become increasingly populated with AI solutions, the potential to improve processes increasingly implies the possibility of choosing to integrate AI-processes. This is the foundation of the proposed international entrepreneurial processes research agenda presented here. The research topics and concerns presented here should serve to both inspire and direct future study in this field.
VI. References


VII. Appendices

Appendix A. Figure 1: The AI-enabled entrepreneurial process, Giuggioli and Pellegrini (2022)
Appendix B. Figure 2: GPT as a tool for the international entrepreneurship process (Lallee & Muco, 2023).

Appendix C. Interview guide

Introduction to topic and ethical concerns
Welcome to this interview about the use of generative AI in international business.
Your participation in this study is completely voluntary, and you have the right to withdraw at any time without consequence. All personnel information you provide will be kept confidential and will not be shared with anyone outside of the research team.

As a participant in this study, we will be conducting a semi-structured interview with you. The interview will consist of a set of open-ended questions designed to explore your experiences and opinions on the use of generative AI in international business. Your responses will be recorded and analyzed by the research team. The recording will only be accessed by the research team and will be kept confidential and deleted at the end of the
study. Additionally upon your request you will have access to the transcripts to review, correct or authorize its use.

**Do you have any questions or would you like to express any concern you may have?**

*Before we begin the interview, we will need your informed consent.*

So if everything is fine with you we may proceed with and I will give you a little run down of the purpose of the study and what your participation entails.

Generative AI is a field of artificial intelligence that enables computers to understand and interpret human language. One example of it is a tool called Chat GPT, which can generate human-like responses to text-based inputs. The purpose of this interview is to understand how entrepreneurship can use this technology to benefit within their international business process. By learning from your experiences using this technology, we hope to gain insights into how it can be used effectively. Your participation will help us understand how this technology can be used to improve international business outcomes.

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**General information**

1. What is the nature of your business?
2. Can you tell me about your general experience using Generative AI?
3. Are there any other GPT tools you use?
4. Can you tell me about your general experience using ChatGPT/GPT in your international business operations?
5. Has it benefited you economically speaking whether to save costs, generate more revenue or improve efficiency? (Performance)

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**Strategy tool**

6. Have you used ChatGPT to help you evaluate your internal results in general or in comparison to your competition
   a. What specific insight have you gained from this approach? (Decision making)
   b. Would you say it is more advantageous to run it through GPT than to hire a consultant or full time employee on that or your own resources? (Performance level)
7. Have you utilized Chat GPT-like technologies to IDENTIFY risks and opportunities of cross border markets?
   a. Has it influenced your strategies and decision-making processes?(Decision making)
   b. Has it been asset performance wise? (Performance)
8. In the case of foreign markets in which you are established, have you tried to scale or further develop your product/services through Chat GPT?
Knowledge leverage

9. Has ChatGPT ever helped you find innovative solutions to existing problems?
10. Have you used it within your marketing strategy, specifically in foreign markets?
    a. Have you gained valuable insight? (Decision making)
    b. Would you say that it has helped build a better marketing strategy? (Performance)
11. Have you used ChatGPT in relation to your international logistic operations?
    a. Have you made better strategic planning as a result? (Decision making)
    b. Would you say it is more advantageous to run it through chat gpt than to hire a consultant or full time employee on that? (Performance)

Communication tool

12. Have you used Chat GPT to help in your communications with partners, intermediaries, or other stakeholders?
    a. Would you say that ChatGPT has facilitated the formation and management of business relationships? (Performance)
13. Have you used Chat GPT to help in your international communications with foreign partners, intermediaries, or other stakeholders?
    a. Would you say that ChatGPT has facilitated the formation and management of international communication? (Performance)
14. Has it helped the company gain time/efficiency in regards to customer service? (Performance)
    a. Have you conducted any A/B testing to measure the impact of using generative AI, such as ChatGPT on KPIs or business outcomes?
15. Can you share any specific challenges or limitations you have encountered while using generative AI, such as ChatGPT, in the context of international business?
    a. Any legal or ethical considerations that businesses should be aware of when implementing generative AI technologies
    b. Any biases or inaccuracies that may arise from the responses generated by ChatGPT when dealing with diverse cultural contexts and languages?
16. Do you have anything further to add?

Specific question for export expert: Do you recommend to companies to develop generative AI as a solution to improve customer service/ get better business insight on their own results/ build a better marketing strategy/ scale or develop their products.
Appendix D. Empirical findings for Theme 1: Communication tools

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<th>Customer service</th>
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<tr>
<td><strong>Transcription Neoteric</strong></td>
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<td>The most obvious application of generative AI for many people, is in customer support, where you have to answer a lot of different questions about the same topic, but they are asked in a different context so that this new algorithm based on GPT are quite good in understanding different ways of phrasing a question and extracting the right answer depending on how you ask it. So the feeling of talking to this virtual agent or a chatbot is much better and much closer to human to human interaction, which is much preferred by the end user [...] So you could have your knowledge base that is used by a GPT model to generate responses for your customer in any language.</td>
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| **Transcription Scandinavian healthcare equipment provider** |
| We mostly use it for customer service. The emails we get we can process with a GPT plugin and it gives our customers quick answers with questions that we know will pretty much be the same every time like “Where is my order?” “Will it arrive?” etc… It's connected into our email program so it's integrated in Missile. you have like, API Key they come from ChatGPT, and you type that in And then it's integrated. |

| **Transcription export expert** |
| It's a rising interest in [my sector]. And it's part of today’s problematic in my line of business. I have more and more clients selling AI Solutions [such as this] intelligent chatbot that is now working on the five continents and used by almost 100,000 establishments. [...] On the establishments' websites, users can click on the chat box to ask their questions. Approximately 90% of inquiries can be resolved through interactions with the chatbot who will respond with details. If a question can not be answered the chatbot notifies the company's staff who will update the chatbot's program to ensure that the next time a similar question is asked, the chatbot can provide accurate answers. So there are humans behind it actualizing it but it is a solution now that a lot of these establishments are looking for as it is very, very, very well working. |

| Limitations : |
| **Transcription Scandinavian healthcare equipment provider** |
| It's important to make sure that the Chatbot has all the necessary and up-to-date information about orders. This way, when customers ask questions, the Chatbot can provide appropriate answers. However, it's more about how we provide the information to the Chatbot rather than any limitations of ChatGPT itself. |

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<th>Enhancing business communications</th>
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<td><strong>Transcription Scandinavian healthcare equipment provider</strong></td>
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<tr>
<td>Using ChatGPT did make certain tasks easier, such as ensuring the quality of emails</td>
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[..] there have been instances where I've written an email and inputted it into ChatGPT to see if it can improve it, and it consistently provides better results than I could do.

[..] Me and I guess my colleagues as well are using it when you're trying to formulate a tricky email. You can just go through ChatGPT, and make sure you get everything you want to say to be said correctly.

**Transcription Vass PR (PR Agent)**

Yes, we used ChatGPT to help in your communication with partners. [...] I love it. It has helped me with every text I need to do so, like press releases [...] it helps me come up with ideas, produce text in different ways.

**Transcription Skie solutions**

I can use a ChatGPT to rephrase an email. This is something that I've tried to do. But it's not something that I do on a daily basis.

**Transcription export expert**

[In some situations] I asked ChatGPT “Can you write me a letter to answer to a customer who said this” I copy/paste the mail of my customer and he writes me an answer.

**Limitations :**

**Transcription Scandinavian healthcare equipment provider**

Sometimes when I write an email and put it into ChatGPT, it focuses on aspects that I didn't intend to prioritize. But it's more about how I presented the information initially. But I can simply ask ChatGPT to focus on specific areas, and it will fix it accordingly.

So, it's not really a problem with ChatGPT itself, but rather a matter of providing clearer instructions.

**Transcription Vass PR (PR Agent)**

Some texts in Swedish can be a bit old fashioned Swedish.

**Facilitating cross-cultural communication**

**Transcription Vass PR (PR Agent)**

PR Agent : Yes, on international communication it has facilitated well.[...] It does [change the tone] by itself if I have been clear in my message that I want it in a specific tone. [...] if you don't like the tone, you can ask it to change and adjust it accordingly.

Researcher : Okay. So you feel like it's a better alternative than Google Translate, for example ?

PR Agent : I think so, because in Google Translate I can just write and translate the text, while in ChatGPT, I can communicate and just put in an idea and they write the text based on the idea. So I use ChatGPT for translating text to English and making it sound better.

I can just put in an idea and they write the text based on the idea, and it generates in the language that I want it to.

**Transcription export expert**
[When asked if GPT has shown signs of bias in cultural contexts]
Expert: Never It takes into account some factors not but not the stereotypes.

[...]
My colleagues and I once asked for fun what Chat GPT thought of the French and he answered that he could not give an opinion and proceeded to give me factual information on France but it will never give its personal opinion such as “French are lazy” or “always striking”, or “French love to eat escargots”

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I would say that the char GPT is 90% an advantage for us because You can address ChatGPT in three different languages in the same conversation and it will automatically respond to the language that we use and answer according to the information provided.
I tried it in different languages and ChatGPT was able to identify what kind of phrases or words would be better to use either in French or in German. So, it was very accurate in all languages even though they were still things that had to be corrected. The emails that ChatGPT writes are correct. Especially in French, but [...] In German the email is not completely correct, but a fluent German would get the point. [...] it is correct but it is too long and in the German working culture, no one writes emails that are that long. [...] that's not how it works in Germany. Sentences such as “Good morning dear sir or madam, I hope this email finds you in good health”, are too formal.
Researcher: So there's maybe a lack of cultural nuance?
Expert: Yes.

Transcription Scandinavian healthcare equipment provider
For one we can translate stuff pretty easily.
Researchers: Have you ever used it to try and communicate in other languages with foreign partners?
Head of Logistics: Yeah, most of the emails we send are in English. [But to have a chatbot answer in any language is] the main point since we're gonna be operating in some countries that don't really like to speak English.

Transcription Neoteric
That could be an interesting case to validate. If Chat GPT can rephrase the whole page to address a new market better, theoretically yes, but... I have never used it and I am not sure if current models would be capable of it, because cultural differences are very hard to cross reference with.

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What's very interesting is that GPT models can provide you with accurate, at least unmatched accuracy of translations. So you could have your GPT knowledge base generate responses but the conversation can be held in another language.
[The translation capability is] a game changer especially for companies that are providing commodities that need instructions for safety and that needs, you know, like a Q&A or an instruction how to use something and in that way you can generate your instructions in one language and have users ask about the qualities of the product and the possibilities of using it with their native language.

Transcription Skie solutions
Appendix E. Empirical findings for Theme 2: Knowledge

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**Transcription export expert**
I personally have never used it [regarding the supply chain management] but I know that some of my coworkers used it and they are very happy about it because it's giving some crazy solutions where they collectively gather information and ChatGPT uses it to give them the correct answers and tools.

**Transcription Vass PR (PR Agent)**
I work with the creative part. That's when I use the ChatGPT and it comes up with several cool ideas that I haven't thought of. [GPT tools are] coming up with ideas for an event that a client wants to do or like things in that nature [...], producing text in different ways. [...] I have the brand, the product and what it does and the general ideas and ChatGPT writes the whole idea and creates even more ideas based on what I wrote. [So it is] coming up with unique solutions or ideas that we wouldn't have thought about before because we work under a lot of time pressure, so you don't have that much time to come up with an idea.

**Transcription Skie solutions**
I have used ChatGPT [...] to write some blog posts, and the results were pretty good. However, it depends on how you use the system and what input you provide to ChatGPT.

**Transcription Neoteric**
It's Creating unique content based on models that are pre trained on data and can respond to a wide range of enquiries (prompts). [...] GPT solutions is something that we are using on the marketing side, helping our competent creators to generate valuable content for our customers, guiding them through the journey. [...] I can use ChatGPT to generate ideas for content that I want to put on my social media or my blog and ask it to prepare it in a specific way.

I have seen great problem solving in some cases. For example, you can also use the data processing capabilities to join two different images together. So, for instance, you use one for the shape and one for the content of the picture. Those technologies enable different use cases. For example in architecture, you could scan [a surface] with your phone and then [...] generate ideas for putting different furniture, so this kind of solution could be possible. Also, laying out gardens or even districts, it can be a support for an architect to find different ideas.
It finds graphical patterns and generates content from those patterns. So, you could use it for running A-B testing on websites and see different ways of presenting your product, showing them in different contexts, showing them on different computer-generated models, for instance, in fashion, and you can easily validate which looks of the model is leading to better conversions.

**Organizational Knowledge Management and Employee Training**

**Transcription export expert**

[This state export organization] encouraged us to use it with our company email address as the questions and answers that we collectively feed into it create a database of knowledge so that specific questions regarding specific industries could benefit all as an organization.

**Transcription Neoteric**

Another use case is analyzing texts, videos and transcripts of conversations. So, we use GPT models for instance to analyze the conversations between patients and doctors to synthesize and find insights about what are their feelings, their feedback on different kind of medicine so we can understand what are the downsides, the upsides, how the patients feel, what are the questions that they have, what are the interferences that they experience while using certain medical substantions. In business You can use [GPT bots] to build a support agent for sales people. So you can have a model trained on previous sales conversations transcripts that were successful and unsuccessful, and the model could provide the salesperson with arguments that they can use.

[It also provides with] internal process automation and improvement, especially if you have big complex processes that involve a lot of actors, you can create an interface like ChapGPT that would basically answer people's direct questions about how they should follow the process. So instead of reading dozens of pages of instructions, they can actually verify if the approach they want to take is according with the process

[Another specific use case of developing innovation was] we can find out using GPT models if the ink [of cosmetic or medicine packages] is original or not. Through phone cameras, users can make sure at the store if you are actually buying an original piece or if it is a forfeit.

**Transcription export expert**

[In logistics] they collectively gather information and ChatGPT uses it to give them the correct answers and tools.

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**Transcription Skie solutions**

Another report we can create relates to the performance of our wholesale salespeople, [they are] responsible for generating leads and converting those opportunities into revenue. By utilizing GPT, we can **gain insights into the salespeople's work processes and identify ways for them to improve their performance**. [...] It's reliable because it can be trained on specific data. If you are using the system on your own data, then the result will be accurate.
Limitations:

Transcription Scandinavian healthcare equipment provider
Researcher: Has there been any concern of using ChatGPT because of maybe the accuracy or just giving away information to a platform or anything of that nature? We are pretty early in the testing stage, we haven't really deep dive into legal stuff.

Transcription Vass PR (PR Agent)
Researcher: Has there been any concern of using ChatGPT because of maybe the accuracy or just giving away information to a platform or anything of that nature?
PR Agent: No, we haven't had any problem using it.

Access to wide information and data,

Transcription export expert
ChatGPT is able to tell me about the regulations regarding that specific product in Germany. And when I ask the sources he is able to give it to me.

It enables you to have information all in one place such as the biggest competitors of that sector or the regulations of a product. It gives you some kind of information but you still have to verify this information.

[…] They are able to give us very precious and very specialized answers most of the time. Also they're able to give us all the sources that they use when we ask them.

[…] It is reliable to have general knowledge of a sector or some actors, but if you go into a more detailed discovery of a concept or a market ChatGPT could say or give you information that is false or no longer used.

When ChatGPT is not able to give you the answers, he will give you websites or actors that are able to help you.

Transcription export expert
So, this is the question that I asked to ChatGPT and the question in English would be, can you give me names of shops or distributors of materials and equipment of a certain product?

And the answer ChatGPT gave me is seven big actors in that sector in Germany.

Transcription Scandinavian healthcare equipment provider
As our competitors prices are online we could use ChatGPT to gather some of the competition prices.

Transcription Neoteric
With chatGPT, a regular person who is not technical can interact with the model to create responses based on the prompt that you give it, as long as it is within the frame
of datas it has been trained on. I believe it's 2021, you can check it. And based on the data until that time, it generates a report.

**Limitations:**

**Transcription export expert**

As I said it is reliable, but we still have to see if there are new regulations that came out since the last time it was actualized. Sometimes it can be 2022, but it depends on also, for example, for that previous case, I asked him. When were you last actualized on that market and he said, my last actualizing or actualization of the regulation of that market is from 2019.

**Transcription Vass PR (PR Agent)**

I would not say [it is] 100% reliable because you still have to do your own research on stuff just to make sure, because we have had several incidents with Chat GPT where they have not given the correct information. [...] if you ask a specific question or like a specific statistic, you need to look up if that makes sense or not.

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**Appendix F. Empirical findings for Theme 2 : Strategie**

**Strategy formulation and implementation**

**Transcription export expert**

: Yeah and actually I did use it for management one time where I told him “I have one of my clients who is doing this”, I mean I didn't say it like this, but i said “I am facing a problem. What would be the solutions for me? and then he detailed all the five he said in my opinion I would do this; and he articulated different solutions with a step by step process” and it was very, very interesting.

**Transcription Vass PR (PR Agent)**

We use it mostly for the things we can do on the computer, so making a time plan like a schedule, [...] asking if there are things that we should think of and that we forgot. [We ask questions such as] what we could do on the spot in other countries near the location during the event. [So planning and strategizing]

We explain what brand it is and where they are located and then ChatGPT basically takes care of everything else, [...] For example, If i write “my customer is located in Paris, write a marketing strategy that will answer their needs”, it will tweak the answer so that it integrates something that has something to do with paris.

**Transcription Neoteric**

So you can ask ChatGPT “Ask me three main questions about my strategy based on which you will generate a list of in-depth questions to generate important insights from the company”. And it will use the answers that you provided within the context of the responses.
So, it would help us do analytical work, like you can ask ChatGPT to help you generate questions that you should ask in a certain situation. For instance, what kind of questions should I ask my customer to find out what kind of use cases of generative AI are viable for them? And the ChatGPT will answer by itself, showing you the kind of questions that are important in your research, and this helps you to have a more comprehensive overview on the topic.

It was used as a proof of concept in a Telecom project, which is an approach to implementing R&D projects. So you take a subset of the problem and solve it on a smaller scale before you implement it across the organization. The goal of a proof of concept is to prove that the solution is realistically realizable. So instead of building a whole solution we create a GPT model that you have to code a little bit to use, [This is what we do with our clients], exploring what AI is for them, validating hypotheses of implementing artificial intelligence by proof of concept to full implementations and scaling of the solution across the organization.

So, we have created our own chatbot based on GPT models. Depending on what kind of use cases you need within your organization, you can just get on a website, tell about your company and your challenges. It will ask you a couple of questions, rephrasing what you did just to make sure that we understand it well. And after that, it generates a couple of ideas for proof of concepts that it could run to validate if Generative AR is in fact something that can add up to your business or not.

Negatives answers:
Transcription Vass PR (PR Agent)
I don't believe that we have [used GPT solutions in relation to marketing strategy]
Transcription Skie solutions
Arthur Backouche: No [we haven't used GPT solutions in relation to international logistic operation]
Transcription Scandinavian healthcare equipment provider
We were already operating in the UK and Norway before GPT came along. And the plan to go further, was already integrated when we got bought up by another company. Because I think that their intention was to continue operating within the parent company to extend our reach to private customers throughout Europe.

Limitations:
Transcription Vass PR (PR Agent)
GPT is not 100% reliable; you still have to have the human touch at the end.

Monitoring and evaluation

Transcription Skie solutions
[We use GPT solutions for] everything related to paid media performance, email marketing campaign, Facebook ads, or Google ads, we want to get an overview of how the campaign is performing. So by using GPT to generate reports it gives us insight on how well our advertising is performing.
So we are using GPT to analyze the performance of the software. For example when we do a marketing campaign for a customer or when a customer does a marketing campaign for themselves, they ask us to generate some insight and reports. With GPT solutions, we are able to easily aggregate the data and generate some metrics and insight that are valuable for the customer.

_Transcription Scandinavian healthcare equipment provider_

[Regarding marketing strategy] we pretty much market through Google Analytics. I guess they already are using AI, but we don't use anything directly.

ChatGPT or similar technologies are primarily used to help us maintain visibility and control over the whereabouts of the shipped items. It was this week only so we haven't really gone through with it but we're trying to find ways in which we can use it in this context. [...] We got it to work with one supplier because they are using the same article number for every drop shipping site so that was pretty easy. But with other suppliers it seemed that they had different tracking numbers in each country, probably to keep track of their history and like how the products are doing in other countries. So in that case we didn't really get it to work. But once we figure out what the article numbers are in every country we can use it to compare it.

_Transcription Neoteric_

We don't work with physical products [...] but we are exploring some generative AI approaches within supply chain management solutions that we're building for our customer, especially within tracking the environmental trace of different cases in the process so that you can actually understand what is the environmental trail of the whole value chain.

[Another specific use case of developing innovation was] we can find out using GPT models if the ink [of cosmetic or medicine packages] is original or not. Through phone cameras, users can make sure at the store if you are actually buying an original piece or if it is a forfeit.

_Limitations:
_Transcription Skie solutions_

The level of expertise required determines whether it can be replaced by GPT solutions. For simple tasks, GPT solutions could suffice, but for technical or highly complex tasks, human intervention would still be preferable over GPT. The optimal approach, in my opinion, would be to train staff to utilize ChatGPT in order to generate more results.

Market analysis and competitor assessment

_Transcription Scandinavian healthcare equipment provider_

We tried to analyze the price of the products and see a link with competition that has the same products. So we try to see if our prices are matching. But it was this week only so we haven't really gone through with it but we're trying to find ways in
which we can use it in this context. Where we could scan every country and see what their price range is for the same products that we have. But nothing more than that. [...] To work with one supplier because they are using the same article number for every drop shipping site so that was pretty easy. [Other suppliers] had different tracking numbers in each country, [...] But once we figure out what the article numbers are in every country we can use it to compare it.

We have not [utilized ChatGPT or another GPT technology to identify risk and opportunity across borders] at the moment, since we have a mother company that's already operating in those countries. So we got a lot of help from them. So we haven't really used it yet.

**Transcription export expert**
[In my branch] I use it for prospection [...] So every week, I have to integrate new knowledge on the market, or product to help businesses that come to us and using ChatGPT is great because it enables me to identify the big actors, the regulations, the best sellers, the competition and where they are located. But these datas are from 2021 and regulations change mostly every two, three or maximum five years.

I use it to find actors of the sector competitors. Or maybe partners. I use it for laws, I use it for regulations.

For example I have tried to compare the competition for a specific product as i had trouble finding it. So i said “One of my clients is doing this and have troubles identifying actors doing the same in this market. Can you find some for me?” And he did.

I use GPT a lot for example, if one of my clients wants me to do a regulation study about a specific product they want to sell in Germany but they know that [...] Germans are very strict with international laws. I can ask very specific things on ChatGPT for example : “Can you help me find all the different regulations that are specific to that kind of product” and ChatGPT is able to tell me about the regulations regarding that specific product in Germany, along with providing website sources. Another example is that [i needed some guidance and] asked him if it was forbidden to produce foie gras on that market so, I asked ChatGPT and he said that it is not allowed to produce in Germany, but allowed to sell. When asked for the information source he gave me a link of the Federal Government Health Department where i was able to confirm the information that in fact producing foie gras was not allowed due to the fact that producing methods were considered cruel; you were however allowed to sell it.

No, I never [operated a PESTEL or SWOT analysis], I don't use it for this

**Transcription Vass PR (PR Agent)**
[With America] we did have an event for a company that's based there. So based on what the client had said and based on the fact that they were from America, we asked
ChatGPT to propose some ideas that we thought they would like, and the answers were really adapted to the type of market.

We have not [utilized char GPT to identify risk and opportunities in foreign markets ]

[...] most of the important numbers you would use to compare yourself with the competitors I guess are private, so I don't know, but if it's possible that is something that we would use of course.

**Transcription Skie solutions**

No, we didn't use that [ to compare to competition]. And never to [identify risk and opportunities across border]

**Limitations**

**Transcription export expert**

The big disadvantage of ChatGPT for my personal use is that ChatGPT uses sources based on the previous year, so 2021 and we are already at the middle of the year 2023 which means that the latest actualization of ChatGPT was almost one year and a half ago and in my work, we are mostly working with regulations and certifications labels and that kind of information. For example, governmental rules about a specific market that are yearly or monthly renewed and that can be a little problematic for us when we are seeking for very, very fresh information.

At the time ChatGPT is not able to replace humans entirely. So it means that all the information that ChatGPT gives you, you have to control them, you have to look if the sources they use are correct.

For example in the case I stated I already knew the questions and in that one, I would say he gave me a list of seven actors but one actor doesn't exist anymore because the company closed in 2014 and two of them, he said that they were shops but they were actually wholesalers, so I would say it's 70% accurate.

I don't think I am aware of the full capacity of ChatGPT and I am absolutely certain that there are courses that could help us to use ChatGPT in a much much better way in order to find information and to help us make good decisions but Chat GPT as of now is not able assume the full extent of human decisions, human acceptance. It's not 100% able to replace the human factor.

**Transcription Vass PR (PR Agent)**

most of the numbers, like the important numbers you would compare yourself with the competitors I guess are private I don't know, but if it's possible of course [we would use it]

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Appendix G. Empirical findings for Implications
We try to make integrated chats like on E-commerces [...] to do those. But we haven't really gone any further with it. Just played around.

So, ChatGPT can help us generate more revenue by saving time. We often encounter situations where we need to develop code or create documentation. Instead of spending hours on these tasks, we can leverage ChatGPT to generate automated content. This means we can rely on ChatGPT to generate code snippets or write documentation, streamlining the process and freeing up our time for other important tasks.

For the entrepreneurs we help, it would definitely be a financial benefit, the organization bills the number of days that we spend on a file. As ChatGPT helps us get some information faster, I would say that we spent 9 days instead of 10 on files, therefore one day less for them to pay.

when ChatGPT became popular, businesses started looking into generative AI, as it has a lot to offer to improve their competitive advantage, their internal processes.

Personally, out of 10 days work it saves me a whole day of work i would say if i compared to only human research
I consider ChatGPT as a tool that helps me gain some time or to find information that I cannot find, but it will never replace the human decision factor.

At the moment, we use it to save time. So we don't need to hire as many customer service persons at the moment.

[To compare competition prices] for 40,000 articles this would take up to three months to do what we did on one Friday only in like two hours. And it was accurate.

ChatGPT help us generate more revenue by saving time. We often encounter situations where we need to develop code or create documentation. Instead of spending hours on these tasks, we can leverage ChatGPT to generate automated content. This means we can rely on ChatGPT to generate code snippets or write documentation, streamlining the process and freeing up our time for other important tasks.

It saves time in building [in building a marketing strategy]
We are using ChatGPT to write blog posts and external communication. And it has helped save a lot of time.

**Transcription Vass PR (PR Agent)**
I spent less time writing or thinking about ideas, I can answer emails quicker, Yes, I have. [gain in efficiency creating events]

We work under a lot of time pressure so sometimes you don't have the time to properly research and ChatGPT gets you to the point faster. It's not that I wouldn't come to the same conclusion, it's just that I don't have the time to sit and research it.

Many companies need a one pager from us, so we just copy and paste the whole pitch that we have and the ChatGPT will write it in just one page. It just facilitates things.

**Improve quality**

**Transcription Neoteric**
Personally, when ChatGPT became more and more popular, more and more businesses started looking into generative AI, what it has to offer for their business, how they can use it to improve their competitive advantage, to improve their internal processes, looking for excellence.

**Transcription Vass PR (PR Agent)**
I can write not that I didn't before but like write good emails and get my point across much easier.

**Save time**

**Transcription export expert**
I would say, also help me clear some interrogations I had where I was a little bit in the dark.

**Transcription Vass PR (PR Agent)**
Yes, I think that we gained valuable insights for that specific market.

Yes it does have an influence on the final result of what we would provide for your customers.

Yes, it's a great insight. Sometimes we write in propositions with the budget and they make ChatGPT decide which one is better based on the idea. So with this budget we are doing this, this and this, but with this budget we are doing that and then that and then Chat GBT can help them decide which one is better.

**Transcription Skie solutions**
By utilizing GPT, we can gain insights into the salespeople's work processes and identify ways for them to improve their performance.

GPT is a way for the customer to automate some processes to get insights related to their product. Let's say we set up a product for the customer. The customer will want to understand the product's performance based on the data. ChatGPT will be the software we use to look at the metrics and get insights of the customer’s performance.

**Transcription Neoteric**

A use case is that it transforms human conversation into data that you can get insights from. So out of [conversations] we can actually extract what is important for pharmaceutical companies to understand how their medicine performs on the market.

We use it to answer the biggest technical or organizational insecurity in the process. We answer the questions “can it be done?” And once we prove it can be done the next stage is a pilot to verify if this technical solution that we created based on the proof of concept, if it actually drives the expected results out of the real business. So the pilot is used based on real data provided by the people that will be using the solutions. And the solution has to prove that the technique that we created within artificial intelligence will actually drive the business KPIs as intended when applied through the whole organization or the whole process or the whole set of data provided. Then we are scaling, so you take this pilot to all locations, all peoples, all the portfolios of products or services that the company has to offer.

Use case that you can see in many industries is generating human understandable insights from data. So when you have [different data points in different systems] and you want to find analytical insights across those different data GPT will answer direct questions like “what kind of channel has the best conversion for selling a certain product”. **So instead of building custom reports or reporting in BI systems, you can have a virtual agent that will answer, your question based on your different data points. Turning your analytical data into actionable steps that you can implement in your business** based both on generic models and on the contextual data that you input into the model so that it takes it into consideration as data sources.

**Transcription Scandinavian healthcare equipment provider**

And so you don't use it for anything that forecasts demand.

Head of Logistics: No, no, not at the moment. No. We only keep a few products at hand, they are at our suppliers warehouse, so we don't keep stock.

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**Appendix H. Transcription Neoteric**
Interview 11-05-2023
Duration: 58 minutes
Participants: Anaïs Lallée and Nana Muco (Researchers), Matt Kurletto (CEO Co-founder of Neoteric and President at Gdańsk University of Technology)

Researcher : Before we begin the interview, we will just need your informed consent if you agree with it all.
Matt Kurletto : Yes, it’s all good.

What is the nature of your business and your position?
Matt Kurletto : I’m a serial entrepreneur, CEO and founder of Neoteric, a software development agency that helps enterprise and startups gain competitive advantage by using generative AI - which Chat GPT and NLP is a part of. So my business is helping other businesses to leverage artificial intelligence.

So an example project that we would be doing is recognizing if a certain package is original or not. So our partner is producing a special ink that has a different reaction to light. And we can actually find out using GPT models through the picture or through the camera if the ink is original or not. use it with very premium brands for cosmetics, for medicine, to make sure that you can use a phone and see at the shop if you are actually buying an original piece or is it a forfeit.

Okay, in what countries or regions does your business operate?
Matt Kurletto: The company is based in Poland but 90% of revenues are coming from USA and we have some project in europe and southeast asia as well

Researcher : Can you tell me about your general experience using ChatGPT/GPT in your international business operations?
Matt Kurletto : So generative AI is the latest and hottest thing lately in the artificial intelligence space and it works as kind of an agent that supports a person in doing their tasks. It’s Creating unique content based on models that are pre trained on data and can respond to a wide range of enquiries (prompts). Now there is GPT in general which is a tool for AI engineers and more technology savvy people, and there is Chat GPT which is an interface that an average person can use.
The use cases vary for different industries and different businesses, but what generally stands out is :
- firstly, internal process automation and improvement, especially if you have big complex processes that involve a lot of actors, you can create an interface like ChapGPT that would basically answer people direct questions about how they should follow the
process. So instead of reading dozens of pages of instructions, they can actually verify if the approach they want to take is according with the process.

- Then, the other use case that you can see in many industries is generating generating human understandable insights from data. So when you have different data points like conversions in one system, sales pipeline in another, business efficiency in your finance management system, and you want to find analytical insights that go across those different data and will answer direct questions like what kind of channel has the best conversion for selling a certain product. So instead of building custom reports in reporting in BI systems, you can just have an agent that will answer, a virtual agent that will answer your question based on your different data points. So basically turning your analytical data into actionable steps that you can implement in your business based both on generic models and on the contextual data that you input into the model so that it takes it into consideration as data sources.

- Another application of generative AI is the most obvious for many people, which is in customer support, where you have to answer a lot of different questions about the same topic, but they are asked in a different context so that this new algorithm based on GPT or the competitive models are quite good in understanding different ways of phrasing a question and extracting the right answer regarding of how do you ask it. So the feeling of talking to this virtual agent or a chatbot is much better and much closer to human to human interaction, which is much preferred by the end user.

- Another use case is analyzing text and videos and transcripts of conversations. So, we use GPT models for instance to analyze the conversations between patients and doctors to synthesize and find insights about what is the what are the feelings, what is the feedback regarding using different kind of medicine so we can understand what are the downsides, the upsides, how the patients feel, what are the questions that they have, what are the interferences that they experience while using certain medical substantions, but you can use a very similar approach for instance to build a support agent for sales people. So you can have a model trained on previous sales conversations that were successful and unsuccessful, and the model could potentially listen to the conversation led by a salesperson and provide them with arguments that they can use. That would be from the text perspective, from the graphical perspective, it's all about finding patterns and generating content from those patterns. So, you could, for instance, use it for running A-B testing on websites where you could use different ways of presenting your product, using artificial intelligence, showing them in different contexts, showing them on different models, also computer generated models, for instance, in fashion, and you can easily validate which looks of the model is leading to better conversions.

So I index, like input certain words that are not often used or not easily understood or technical that are within my report and ask CapGPT to generate explanations for each of them. Or I can use ChatGPT to generate ideas for content that I want to put on my social media or my blog and ask it to prepare it in a specific way.
Chat GPT is like an automated agent behind. This is what answers turns these questions into seeking the data that can feed them. Chat is just an interface between you and those models. So, using GPT models, you can create the GPT chat, not the other way around.

Researcher: Are there any other Generative AI tools you use?
Matt Kurletto: GPT as a model in the background has many other functions that you can use for different applications. So, yes, we are using other techniques of generative AI, for instance, LangChain, which is a preprocessing tool that helps you build context of your prompts by vectorizing the data that is relevant for you as an add-on to the foundation model. And we are also experimenting with competitive solutions to open AI.
I use Notion as well for personal and business purposes.
There is a lot more, so you can check out Riker, you can check out Jasper AI, you can check out... I think that Grammarly is working heavily on Generative AI right now. I've used some of them just to see how they work and I wouldn't be able to give you a comprehensive overview of what it does. So like, I understand how it works and what's the value proposition, but I didn't use it much for my purposes and in my line of work its not that useful because I don't create much content, I rather consult and lead the company as the CEO, so my responsibilities are quite different.

Researcher: Can you tell me about your general experience using/GPT in your international business operations?
Matt Kurletto: So, with chatGPT, a regular person who is not technical can interact with the model to create responses based on the prompt that you give it. So if you use a current version of ChatGPT, it's trained up to some point, I believe it's 2021, you can check it. And based on the data until that time, it generates a report. So, if your questions or your challenges are not within the last two years, you can actually find a lot of ideas and a lot of insights from the ChatGPT. So, it would help us do analytical work, like you can ask ChatGPT to help you generate questions that you should ask in a certain situation.
For instance, what kind of questions should I ask my customer to find out what kind of use cases of generative AI are viable for them? And the ChatGPT will answer by itself, showing you the kind of questions that are important in your research, and this helps you to have a more comprehensive overview on the topic. If you're creating some kind of content for marketing purposes or report purposes, and for instance, when I use it when I do my reports, I sometimes use it to generate a glossary. So you can ask ChatGPT “Ask me three main questions about my strategy based on which you will generate a list of in-depth questions to generate important insights from the company”. And it will use the answers that you provided within the context of the responses. If you ask about international business, I'm not indicating specifically international business cases, because the GPT models are not that much relying on the use cases; meaning the fact
that its international is not important from the technical point of view. So you would use similar approaches within one market that you can use on the international market. But what's very interesting is that GPT models can provide you with accurate, at least unmatched accuracy of translations. So you could have your knowledge base that is used by a GPT model to generate responses for your customer success team, but the conversation can be held in another language. And that is a game changer especially for companies that are providing commodities that need instructions for safety and that needs, you know, like a Q&A or an instruction how to use something and in that way you can generate your instructions in one language and have users ask about the qualities of the product and the possibilities of using it with their native language

Researcher : Has it benefited you economically speaking whether to save costs, generate more revenue or improve efficiency? (Performance)

Matt Kurletto : Our personal business, yes. Because our business is about implementing artificial intelligence for businesses. So, when ChatGPT became more and more popular, more and more businesses started looking into generative AI, what it has to offer for their business, how they can use it to improve their competitive advantage, to improve their internal processes, looking for excellence.

Researcher : Okay, so basically if you have people doing that, I guess it must be because they see an interest in doing that, in either saving cost or generating more or improving efficiency? This is what you do for them, so it must be working ?

Matt Kurletto : It is. Now personally for Neoteric we have generated new customers, and we have seen a pike of interest and our closure rates improved in generative AI projects. And I believe that the popularity of ChatGPT has been an important factor in that.

Also, ChatGPT is something that we are using, or GPT solutions that we are using on marketing side, generating, helping our competent creators to generate valuable content for our customers, guiding them through the journey of, exploring what AI is for them, through validating hypothesis of implementing artificial intelligence by proof of concept to full implementations and scaling of the solution across the organization.

Researcher : Have you used ChatGPT to help you evaluate your internal results, resources within the company

Matt Kurletto : So, we have created our own chatbot based on GPT models. Depending on what kind of use cases you need within your organization, you can just get on a website, tell about your company and your challenges. It will ask you a couple of questions, rephrasing what you did just to make sure that we understand it well. And after that, it generates a couple of ideas for proof of concepts that it could run to validate if Generative AR is in fact something that can add up to your business or not.
Researcher: In the case of foreign markets in which you are established, have you tried to scale or further develop your product/services through GPT?

Matt Kurletto: Yes it was used as a proof of concept. (Telecom project). So proof of concept is an approach to implementing RandD projects. It works in a way that you take a subset of the problem and solve it on a smaller scale before you implement it across the organization. The goal of a proof of concept is to prove that the solution is possible to be created. So, for instance, if you were thinking about this ink recognition, so we wouldn't build the whole solution like an app for the end customer and everything else, but we would rather create a model that you have to code a little bit to use, but that would answer the main question, is it possible to determine if it's original or not? So we don't care about how it looks, we don't care about if it's scalable, we don't care about whether it pieces the data automatically, we don't integrate it with anything, we take the shortest period of time to answer the biggest technical or organizational insecurity in the process. And verify and answer the questions can it be done? And once we prove it can be done the next stage is a pilot to verify if this technical solution that we created based on the proof of concept, if it actually drives the expected results out of the real business. So the pilot is used based on real data actually by the people that will be using the solutions and it has to prove that through the whole organization or the whole process or the whole set of data used the technique that we created within artificial intelligence it will actually drive the business KPIs as intended. And then its scaling, so you take this pilot out of this one city to all locations, out of this 50 people towards one and a half thousand, out of the subset of the products to the whole portfolio of products and services that the company has to offer.

Researcher: Has it influenced your decision-making in this area then?

Matt Kurletto: The ChatGPT itself is hard to say, but the GPT models can be very valuable in that matter. So you can also use them because of the language processing patterns, you can find them in other areas than communication. So, for instance, in creating molecules, you have those textual patterns that you can use, or analyzing DNA. It can also use some language patterns to go through that.

Researcher: Has ChatGPT ever helped you find innovative solutions to existing problems?

Matt Kurletto: I have seen great problem solving in some cases. For example, you can also use the data processing capabilities to join two different images together. So, for instance, you use one for the shape and one for the content of the picture. And those technologies enable different use cases. in architecture, where you could scan the interior or exterior with your phone and then apply the area of the real estate that you would like to refurbish or change the accessories and want the artificial intelligence to generate ideas for putting their different furniture, so this kind of solution could be possible. Also,
laying out gardens or even districts, it can be a support for an architect to find different ideas about.

Or another case is that it transforms human conversation into data. So from that you get insights on how the specific medicine is being used, what are the effects of using it, is the patient happy with that, what other meds do they take, how do they see the progression of the therapy. So out of the informal, unstructured conversation between the patient and the health care professional, we can actually extract what is important for pharmaceutical companies to understand how their medicine performs on the market.

Researcher: Have you used Chat GPT in relation to your international logistic operations?
Matt Kurletto: We don't work with physical products. All of my businesses are digital, human-related. But we are exploring some generative AI approaches within supply chain management solutions that we're building for our customer, especially within tracking the environmental trace of different cases in the process so that you can actually understand what is the environmental trail of the whole value chain.

Researcher: Okay. Now I would like to talk about communication more specifically and ask you if you have used GPT technologies to help in your communications?
Matt Kurletto: Well, that’s another application of generative AI and the most obvious for many people, which is in customer support, where you have to answer a lot of different questions about the same topic, but they are asked in a different context so that this new algorithm based on GPT or the competitive models are quite good in understanding different ways of phrasing a question and extracting the right answer regardless of how do you ask it. So the feeling of talking to this virtual agent or a chatbot is much better and much closer to human to human interaction, which is much preferred by the end user.

Researcher: Have you used Chat GPT within your marketing strategy, specifically in foreign markets?
Matt Kurletto: ChatGPT is something that we are using, or GPT solutions that we are using on marketing side, helping our competent creators to generate valuable content for our customers, guiding them through the journey of, exploring what AI is for them, through validating hypothesis of implementing artificial intelligence by proof of concept to full implementations and scaling of the solution across the organization.
Researcher: Okay, so in the case of international business, for example, you could prompt the technology to adapt to a new market. So if you want to do marketing, for example in another market, could you prompt the creation to lead toward a certain culture?
Matt Kurletto: That could be an interesting case to validate. If Chat GPT can rephrase the whole page to address a new market better, theoretically yes, but… I have never used it and I am not sure if current models would be capable of it, because cultural differences are very hard to cross reference with.

Researcher: Any challenges or limitations to using ChatGPT or other deep learning NLP technologies in international business operations.

Matt Kurletto: The most important thing about applying artificial intelligence to your business is finding the match between your strategy and the way that Artificial Intelligence can impact certain processes and certain actions that are crucial for you to achieve the strategy goals that you have. So, just getting from the point of what can be done is not enough. Because you need to go from top to bottom perspective which is how those possibilities can help us move forward faster, more securely, cheaper, with more confidence, with less friction, with better customer care, et cetera, et cetera.

So, chat GPT is an interface based on this foundational model, and doesn't have very much of a context, and is only trained with old data, meaning more than two years old. And that's why it has important limitations in being used. So if you want to actually use it based on your business, you need actual data, meaning data from the last two years, to use it as an enhancement to what GPT is already trained with, and then you need your own interface. This interface can be chat-like, it can be chat-GPT-like, but it can have many different kinds of interfaces that you wouldn't say are related to chat GPT because they are not chat-like.
Appendix I. Transcription Scandinavian healthcare equipment provider

Interview 19-05-2023
Duration: 32 minutes
Participants: Anaïs Lallée and Nana Muco (Researchers), Anonym Head of Logistics.

Researcher: All right. So before we begin the interview, we will just need your informed consent if you agree with everything.
Head of Logistics: Yes, it's fine.

Researcher: Okay, so to start with what's the nature of your of the business you work for
Head of Logistics: It's an e-commerce site.
Researcher: Okay, tell me more.
Head of Logistics: We sell, like medical equipment and like Also, some fitness equipment, but mostly. Yeah, for clinical, like medical use machines and like, Just general supplies.
Researcher: Okay, what's your position in this job? What's the nature of your operations?
Head of Logistics: I am head of supply chain.
Researcher: Okay, which means that you do…?
Head of Logistics: So it just means that I make sure that I get the product to get there in time. Yeah, pretty much that

Researcher: Okay. How many countries does your company operate in?
Head of Logistics: At the moment, it's Sweden, Denmark and the UK. But we're gonna launch in Norway and Finland in two weeks. And then we're gonna do I think Germany. Netherlands, France, Spain and Poland within like quarter three of this year.
Researcher: Okay, that's good. Are you gonna be in charge of those operations?
Head of Logistics: Yeah, the same position.

Researcher: Okay, so to start with the artificial intelligence in your opinion. What are the main advantages and disadvantages of using Generative AI in international business. Compared to traditional approaches.
Head of Logistics: For one we can translate stuff pretty easily. And we mostly use it for customer service. Like the emails we get we can process with ChatGPT and it gives our
customers quick answers with questions that we know Will pretty much be the same every time like “Where is my order?” “Will it arrive?” etc…

Researcher: So what's the generative AI tool that you use?
Head of Logistics: It's ChatGPT but we use it like a plugin. It goes into our email program. so it's connected so it's integrated in Missile.
Researcher: Okay, what's the name of the plugin? Sorry.
Head of Logistics: No, it's just a Missile you have like, API Key they come from ChatGPT, and you type that in And then it's integrated.

Researcher: Okay. Would you say that generated AI tools are associated with economical benefits. Whether it's a cost, generate more revenue, improve efficiency.
Head of Logistics: At the moment, we use it to save time. So I guess it's just that we don't need to hire as many customer service persons at the moment.

Researcher: Okay, you talked about expanding to new countries soon, in this context have you utilized ChatGPT or another GPT technology to identify risk and opportunity across borders.
Head of Logistics: not really at the moment, since we have a mother company that's already operating in those countries. So we got a lot of help from them. So we haven't really used it yet.
Researcher: Okay, is there anyone else in the firm that would be maybe? Doing that apart from you?
Head of Logistics: It's hard to say, I don't really know.

Researcher: Okay. Have you used ChatGPT as a tool to help compare companies to the international competition in other countries?

18:41 Head of Logistics: No, not really. We tried to analyze the price of the products and see a link with competition that has the same products. So we try to see if our prices are matching. But it was this week only so we haven't really gone through with it but we're trying to find ways in which we can use it in this context. Where we could scan every country and see what their price range is for the same products that we have. But nothing more than that.
Researcher: Okay. From that experience. Would you say that it was reliable?

Head of Logistics: Yeah, we got it to work with one supplier because they are using the same article number for every drop shipping site so that was pretty easy. But with other suppliers it seemed that they had different tracking numbers in each country, probably to keep track of their history and like how the products are doing in other countries. So in
that case we didn't really get it to work. But once we figured out what the article numbers are in every country we can use it to compare it. But yeah, we just did this.

Head of Logistics : I think we started with this on Thursday so I haven't really done anything with it.
Researcher : Okay, how much faster does it do the job compared to human work?
Head of Logistics : I would say. Maybe this would take up to three months to do what we did on one Friday only. Because I think it's like 40,000 articles and we did it in like two hours.
Researcher : And it's accurate ?
Head of Logistics : Yeah.
Researcher : Okay, that's great.In the case of foreign markets in which you are established already, have you tried to scale or further develop your product and services through GPT solutions ?
Head of Logistics : Right now. Not really. We were already operating in the UK before ChatGPT came along. And the plan to go further, was already integrated when we got bought up by another company. Because I think that their intention was to continue operating within the parent company and also market our products directly to individuals. I believe that was their primary objective when they initially acquired us - to extend our reach to private customers throughout Europe.

Researcher : Okay. Um, has ChatGPT ever helped you find an Innovative solution to the problem that you already had.
Head of Logistics : not really but we played around with it, we try to make integrated chats like on E-commerces where you can ask the customer service agent. What's the status of your order, etc? So we're trying to create something that could answer the easiest questions, so we don't need an actual customer service person to do those. But we haven't really gone any further with it. Just played around.
Researcher: I see. Have you utilized ChatGPT or a similar technology in managing your international logistics operations?
Head of Logistics: No, not really. Since we primarily dropship our products, the majority of the shipping and logistics operations are handled by the suppliers themselves. ChatGPT or similar technologies are primarily used to help us maintain visibility and control over the whereabouts of the shipped items.

Researcher : And so you don't use it for anything that forecasts demand.
Head of Logistics : No, no, not at the moment. No. We only keep a few products at hand, they are at our suppliers warehouse, so we don't keep stock.
Researcher: nothing about optimizing routes, or custom compliance or supplying supply chain risk management.

Head of Logistics: No, not at the moment. No.

Researcher: Okay. How do you use ChatGPT to help in your communication, with colleagues, partners or other stakeholders?

Head of Logistics: Me and I guess my colleagues as well are using it when you're trying to formulate a tricky email. You can just go through ChatGPT, and make sure you get everything you want to say to be said correctly.

Researcher: Okay, have you ever used it to try and communicate in other languages with foreign partners?

Head of Logistics: Yeah, like most of the emails, we send are in English. So, yeah.

Researcher: Would you say that it has facilitated the formation or the management of your international communications.

Head of Logistics: I suppose to some extent, but it wasn't a significant change for us since we were already managing those aspects before. However, using ChatGPT did make certain tasks easier, such as ensuring the quality of emails.

Researcher: Okay. Have you used ChatGPT or any other GPT technology to help with marketing strategy?

Head of Logistics: No we haven't.

Researcher: Okay. Or is it possible that someone else in the company? Did it?

Head of Logistics: No, we pretty much market through like Google Analytics. I guess they already are using AI, but we don't use anything directly.

Researcher: Okay. Do you have any ideas whether they use Generative AI?

Head of Logistics: No, I have no idea.

Researcher: Okay, I can look this up. Can you share any specific challenge or limitation that you have encountered while using generative AI such as ChatGPT?

Head of Logistics: Well, in our case, we haven't fully automated the process. We always review the output generated by ChatGPT before sending any communications or content. If it were to be used as a chatbot without human oversight, there is a possibility of it producing inaccurate or inappropriate responses. This could pose a problem if the responses are sent directly to our end customers. However, since we review and verify everything that ChatGPT generates, we haven't encountered any significant challenges or limitations thus far.

Researcher: Okay, but are you happy with what it produces?
Head of Logistics: Yes, there have been instances where I've written an email and inputted it into ChatGPT to see if it can improve it, and it consistently provides better results than I do. There’s a few times where it misunderstood the meaning, but I believe that's more of a personal issue rather than a problem with ChatGPT itself.

Head of Logistics: Yeah, like sometimes when I write an email and put it into ChatGPT, it focuses on aspects that I didn't intend to prioritize. It's more about how I presented the information initially. But I can simply ask ChatGPT to focus on specific areas, and it will fix it accordingly. So, it's not really a problem with ChatGPT itself, but rather a matter of providing clearer instructions.

Researcher: Okay, so with the other uses that you have of ChatGPT like the plug-in or anything or when you try to test customer service. In Chatbots is there any specific limitation or challenges that you've encountered?

Head of Logistics: No, like, when it comes to the chat, you just need to ensure that it has all the relevant data. The customer needs to type in their order number and verify it with their email. So, it's important to make sure that the Chatbot has all the necessary and up-to-date information about that order. This way, when customers ask questions, the Chatbot can provide appropriate answers. However, it's more about how we provide the information to the Chatbot rather than any limitations of ChatGPT itself.

Researcher: Yeah. Does it happen that it gives fake information anytime or?
Head of Logistics: Like now, we only did fake orders like a hundred different orders and just like in like text documents and just put it in the folder. And then, we just gave it access to those things. And then we like, tried, we just asked it to pretend to be a customer service agent and then we type an order number and ask “can you tell me where my order is and collect the data from that specific Order Numbers folder?” and it was great, but that was just with 100 fake orders. So I guess it will work as long as the information that ChatGPT has is correct, because otherwise, it will just give out the wrong information.

Researcher: Yeah. Um, can your chatbot answer in any language?

Head of Logistics: Yeah, yeah, that's the main point since we're gonna be operating in some countries that don't really like to speak English. Because right now like the UK and Denmark, we can pretty much either speak Swedish or English and they will be okay with it.

Researcher: Any legal or ethical consideration? That you have to be careful of with those
Head of Logistics: I don't know, I think you have to say if you're talking to a chatbot that it is a Chatbot, something like that. But yeah, we are pretty early in the testing stage, we haven't really deep dive into legal stuff.
Researcher: Okay, because you don't use it for anything on the legal side.
Head of Logistics: No.
Researcher: Okay. Well, I think that's about it. Thank you for your time and your answers.
Head of Logistics: Thank you.
Researcher: We appreciate your insights. And we'll be in touch with you if we have any further questions.
Head of Logistics: Yeah, sure you do that.

Appendix J. Transcription Skie solutions

Interview 12-05-2023
Duration: 17 minutes
Participants: Anaïs Lallée and Nana Muco (Researchers), Arthur Backouche (senior marketing manager cloud consultant)

Researcher: So we will record the meeting. And the recording will be only accessed by us. Yes. And upon requests, you can ask for the transcripts or any material. And if you want to correct it and access it, and yeah authorize it, it's always a possibility. So is everything fine with you, on that?

Arthur Backouche: Everything is fine.

Researcher: Okay, so the first question is, what is your position?

Arthur Backouche: My position is I work as a Salesforce marketing cloud consultant. So Salesforce is like a big company that provides CRM and enterprise solutions. So, the idea of Salesforce is like to do enterprise system. So every time we store data about a customer, we are using Salesforce for example and I've been working with the industry for around like two, three years. But I also have a background in digital marketing and in computer science. So it's really like the junction between computer science and digital marketing.

Researcher: Okay. In which country or regions does your business operate in?
Arthur Backouche: So I'm based in Australia and we work a lot with Australian companies but we also work with companies within the APAC region. So, Singapore and Thailand. Southeast Asia. And also, we work with a company based in the UK. So, for example, we work with the BBC and the BBC is based in England.

Researcher: Okay. Can you tell me about your general experience using generative AI such as GPT?

Arthur Backouche: Um, yes. So we work with ChatGPT and artificial intelligence solutions that are related to implementing new software. For example Salesforce is like a product that we implement for the customer. When the customer buys Salesforce it's basically as if the customer buys an empty house and we build the house. So like we configure the system and so GPT is a way for the customer to automate some processes to get insights related to their product. Let's say we set up a product for the customer. The customer will want to understand the product's performance based on the data. ChatGPT will be the software we use to look at the metrics and get insights of the customer’s performance.

Researcher: Are there any other GPT tools you use?

Arthur Backouche: Oh yeah. So we are using Einstein GPT which is a variant of ChatGPT, so we have ChatGPT that is like the main product by open AI, but we also are using Einstein GPT which is a really similar product, but that is applied to the Salesforce software that we are using in house.

Researcher: Oh okay. How has GPT benefited your company economically? Has it saved costs, generated more revenue, or improved efficiency, for example?

Arthur Backouche: So, ChatGPT can help us generate more revenue by saving time. We often encounter situations where we need to develop code or create documentation. Instead of spending hours on these tasks, we can leverage ChatGPT to generate automated content. This means we can rely on ChatGPT to generate code snippets or write documentation, streamlining the process and freeing up our time for other important tasks.

Researcher: Okay. Have you used GPT solutions to help you evaluate your internal results? Like resources within the company.
Arthur Backouche: So we are using GPT to analyze the performance of the software. For example when we do a marketing campaign for a customer or when a customer does a marketing campaign for themselves, they ask us to generate some insight and reports. With GPT solutions, we are able to easily aggregate the data and generate some metrics and insight that are valuable for the customer.

Researcher: Could you tell us specifically what kind of metrics you generate?

Arthur Backouche: Yeah, so, it can be everything related to paid media performance. When we are doing some email marketing campaign, or Facebook ads, or Google ads, we want to get an overview of how the campaign is performing. So by using GPT to generate reports on the paid advertising campaign, it gives us insight on how well our advertising is performing. Another report we can create relates to the performance of our wholesale salespeople. For instance, we have salespeople responsible for generating leads and converting those opportunities into revenue. By utilizing GPT, we can gain insights into the salespeople's work processes and identify ways for them to improve their performance.

Researcher: Okay. Do you find that ChatGPT is reliable?

Arthur Backouche: Yes, so far it's reliable because it can be trained on specific data. So it's really dependent on which type of data set you are training the system. If you are using the system on your own data, then the result will be accurate.

Researcher: Okay. Have you done so to compare to competition? Like locally or internationally?

Arthur Backouche: No, we didn't use that.

Researcher: Do you use ChatGPT to gather information about risks, opportunities, or competition in other markets?

Arthur Backouche: The only thing I have used ChatGPT for outside of work is to write some blog posts, and the results were pretty good. However, it depends on how you use the system and what input you provide to ChatGPT.

Researcher: Okay, so text generation.
Arthur Backouche: Yep.

Researcher: Is it more advantageous to run it through GPT for most of your tasks rather than hiring an additional employee?

Arthur Backouche: I would say the level of expertise required determines whether it can be replaced by GPT solutions. For simple tasks, GPT solutions could suffice, but for technical or highly complex tasks, human intervention would still be preferable over GPT. The optimal approach, in my opinion, would be to train staff to utilize ChatGPT in order to generate more results.

Researcher: Could you give us a specific example of a task that you would give to charge GPT and others that you wouldn't?

Arthur Backouche: So I would write article or rephrase a blog post. This will be given to ChatGPT. Something that I wouldn't give is to fully create a function in computer science but I will still use it as a support if needed.

Researcher: Okay. Have you utilized ChatGPT to identify risk and opportunities across border markets?

Arthur Backouche: Never.

Researcher: So there is one function about GPT, that's pretty used. It's generating creative solutions and finding problems to existing solutions, is that something that you've ever used?

Arthur Backouche: So far, no.

Researcher: Okay. In the case of foreign markets, have you tried to scale or further develop your product and services through ChatGPT or the other AI that you work with?

Arthur Backouche: Like the product that we are building are too complex to do that. So no, I haven't tried that yet.

Researcher: Have you used ChatGPT in relation to your international logistic operation?

Arthur Backouche: No.
Researcher: Have you used ChatGPT to help in your communications with clients or intermediaries?

Arthur Backouche: Oh, yes. Sometimes I can use a ChatGPT to rephrase an email. This is something that I've tried to do. But it's not something that I do on a daily basis. It's just sometimes I've tried to

Nana Muco: How about helping in your international communication with like foreign partners or intermediaries?

Arthur Backouche: No,

Nana Muco: Within your marketing strategies specifically in foreign markets?

Arthur Backouche: Ah, not in foreign market, but like, when we are writing blog posts, we are doing that in a way. So we are using ChatGPT to write blog posts and external communication. And it has helped save a lot of time.

Researcher: you have it. Okay. Have you ever attempted to tailor your blog writing or marketing approach to a particular market? For instance, if you were to utilize an article or a marketing campaign, have you considered how you would adapt it for a specific market such as China? Is that something you have experience with?

Arthur Backouche: Yeah.

Researcher: And did you get valuable insight? According to the country?

Arthur Backouche: Only in English, we did. Everywhere in the world where they speak English.

Researcher: Okay. Okay, so not targeted to a specific audience living in a specific country?

Arthur Backouche: Yeah, I will say like any audience that is speaking English. Should access should be able to access the content.

Researcher: Oh, okay and in that sense would you say that ChatGPT has helped build a better marketing strategy?

Arthur Backouche: I would say that it saves time.
Researcher: Okay. So any challenges or limitations to using ChatGPT or the other artificial intelligence that you use in your company and international business operations?

Arthur Backouche: Well, I think the limitation is that the product is still at an early stage and that the data that is part of ChatGPT specifically is not 100% updated. So like the sources that we are using are from a few years ago, and not like the data from 2023. It's maybe from 2022 or 2021 and like the model is built and doesn't continue to learn. So by thinking that we need to verify each information created by this model to make sure it's accurate. So I would say this is like the main challenge. Accuracy.

Researcher: But one more question regarding the communication because you said, you try to use it in your emails, would you say that ChatGPT has facilitated the management of your communication somehow?

Arthur Backouche: Oh yeah, I would say it's a good way to interact with external people in the way you want. If English is not your first native language.

Researcher: Okay, so it's a good translation tool.

Arthur Backouche: Yeah.

Researcher: Do you have anything further to add?

Arthur Backouche: Not really.

Researcher: Thank you then.
Appendix K. Transcription Vass PR

Interview 12-05-2023
Duration: 38 minutes
Participants: Anaïs Lallée and Nana Muco (Researchers), Anonym PR Agent

Researcher: All right. So before we begin the interview, we will just need your informed consent if you agree with everything.
PR Agent: Yes.
Researcher: Yes, Perfect. Yes. And so do you have any questions that you wanna express Any concern that you may have?
PR Agent: No, It's the usual.

Researcher: So let's get started with the questions. So first of all, we would like to know what is the nature of your business?
PR Agent: I work in public relations, so I help several different businesses or brands in the beauty industry to be specific with the PR.
Researcher: Yes, OK. So how does your business engage in international business or relations, do you have international customers?
PR Agent: We have international clients that want to settle here in Sweden and create a name. And we also work with different PR agencies in the Nordics.
Researcher: OK, so you are located in the nordics.
PR Agent: Yeah.

Researcher: OK, can you tell me a little bit about your general experience using generative AI such as GPT?
PR Agent: I love it. It has helped me with every text I need to do so, like press releases. Instagram captions for the Instagram and the like, Social media accounts that are handled coming up with ideas for an event that a client wants to do or like things in that nature. So yeah, it helps me come up with ideas, produce text in different ways.
Researcher: Okay. So except from ChatGPT, is there any other generative AI that you've been using?
PR Agent: No, wait. Let me see. No, I've only used ChatGPT. There's some tools that can help you with proofreading your text or rephrasing the phrases, but I don't think that's intelligent artificial intelligence, yeah.
Researcher: Could you maybe give us some of the names of those platforms?
PR Agent: The names, ohh, I don't know the names I just typed into Google like whatever I want to do. So it's like proofreading text. And the first two that come up I just picked up. I don't have a specific one I go to.

Researcher: Yeah. OK. All right. So can you tell me more about your experience using ChatGPT into your international operations specifically?

PR Agent: Yeah, because we speak Swedish. Most of us, like all of us, know that that is the first language we communicate in. So I use ChatGPT for translating text to English and making it sound better. And coming up with ideas like I put in the Swedish text and they will translate it to English.

Researcher: Okay. So you feel like it's a better alternative than Google Translate, for example?

PR Agent: I think so, because I can communicate, I can write in Google Translate, just translate the text. While ChatGPT, I can just put in an idea and they write the text based on the idea.

Researcher: Oh, OK, so it generates in the language that you want to.

PR Agent: Exactly.

Researcher: OK. Would you say that ChatGPT has benefited you economically speaking? And if yes, in what way would you say that you saved cost? That it generated revenue somehow or that it improved the efficiency,

PR Agent: I've just started using it like less than three months now. So I haven't looked revenue wise, but I think it could help to do so, like some people use it to make budgets and stuff like that, so probably will help, but I personally haven't used that in that matter.

Researcher: OK. So would you say that maybe it helps improve your efficiency somehow?

PR Agent: Exactly. In writing I spent less time writing or thinking about ideas because for example, I have been like the brand, the product and what it does and the general ideas and ChatGPT writes the whole idea and creates even more ideas based on what I wrote.

Researcher: OK, so it's really customized text generation that you use. Now would you say that within your company, would you say that ChatGPT has helped you evaluate your internal results or your resources? Does this tool help you evaluate the company performance?

PR Agent: Not like that. I don't know which way you are meaning, but we've had to evaluate which text was better? Sometimes we write in propositions with the budget and they make ChatGPT decide which one is better.
Researcher: Which budget is better?
PR Agent: Yeah, like based on the idea. So with this budget we are doing this, this and this, but with this budget we are doing that and then that and then Chat GBT can help them decide which one is better.
Researcher: And if you, if you can recall the answer that you got, would you say that the the insights that you got from ChatGPT on comparing two texts or comparing to budgets, was it good insights or what do you have to say about the results?
Researcher: Yes, it's great insight, but The thing is with ChatGPT I think it's great to use to to give you more of a general concept but you have to go in and tweak it based on your brand and the budget and the idea you have talked to the client with about. But it's great that you only have to adjust them and tweak them a little more.
Researcher: Okay, but it's great to give you a base and get the idea started?
PR Agent: Exactly.

Researcher: Okay, I understand. Have you used it to compare yourself? So your work or the company's competition?
PR Agent: We haven't started using it like that yet. We are pretty new with the ChatGPT and using it, so yeah, we're just playing around with it so far.
Researcher: OK. Is it something that you would consider doing? For example, try to see the local competition or the international competition? And maybe ask ChatGPT if you would be a good company on the market.
PR Agent: Absolutely. If it's possible, we would do it because ChatGPT only takes information they can find online, and I know that like most of the numbers, like the important numbers you would compare yourself with the competitors I guess are private. I don't know, but if it's possible of course.

Researcher: Okay, So would you say that ChatGPT is a reliable technology to use to evaluate?
PR Agent: I would not say 100% because you still have to do your own research on stuff just to make sure, because we have had several incidents with Chat GPT where they have not given the correct information. So I think not 100%, but it gives you the general idea of things.

Researcher: Okay I see. Have you utilized char GPT like technologies to identify risk and opportunities in doing business abroad?
PR Agent: No, we have not.
Researcher: Okay.
Researcher: So in the case of doing business, in your case public relationships in the foreign markets, have you tried to develop your services through ChatGPT in new markets in new countries?

PR Agent: I don't believe that we have, no.

Researcher: Alright. We just said that ChatGPT has helped you find innovative solutions to problems you had.

PR Agent: I would say so, yes. Because I work with the creative part. That's when I use the ChatGPT and they come up with several cool ideas that I haven't thought of. So yeah.

Researcher: OK. So we just said that it has the influence in your decision making in the final result of what you would provide for your customers.

PR Agent: Yes it does.

Researcher: Okay, I'm sorry. I think something we didn't go through is what's your position in the company exactly because you said you were in the creative part?

PR Agent: I work as the account coordinator and that includes mostly creative parts. So what like the ideas that we present to the brands that we have and the coordination of it all basically. So I don't bring in the clients, but once we have the clients, I take care of them basically.

Researcher: I understand. So for that creative and development part of the job, would you say that it's more advantageous to use ChatGPT or or to hire someone else for example for some big project where you would need someone’s help?

PR Agent: Hire somebody because as I said that GPT is not 100% reliable. You still have to have the human touch at the end.

Researcher: Yes, OK. And in what particular aspect would you, for example, not trust Chat GPT?

PR Agent: Like just in general, if you ask a specific question or like a specific statistic and such things, you need to not verify but just look up if that makes sense or not. And even when I use it to translate text, I do not just copy and paste, I still have to change some things.

Researcher: OK, so it still needs the human check?

PR Agent: Exactly.

Researcher: You talked about ChatGPT in helping you with the event and similar, how have you used it in relation to your logistic operation?
PR Agent: It's mostly like the things we can do on the computer, so making a time plan like a schedule, asking them if there are things that we should think of and like that we haven't thought of asking them about. Ideas that we could do on the spot in other countries near the location during the event and things like that. Like many companies which are one pager for the event to send internally, we just copy and paste the whole pitch that we had and the ChatGPT will write it in just one page, like the one pager. It just facilitates things.

Researcher: Yeah. So it helps you optimize your operation then?

PR Agent: Exactly.

Researcher: Yeah, OK. Have you as a service provider, I don't know if you have to deal with that, but do you? Ever have to deal with custom compliance or inventory somehow?

PR Agent: I've never used chat GPT for that.

Researcher: Okay, is it something that you deal with in the business?

PR Agent: Yes.

Researcher: Okay, could you tell me more about it?

PR Agent: Yeah. So we have different brands from all over the world and we get products sent to us for sampling to profile or journalist. So we have to take care of the shipment, make sure it arrives and once they arrive. Count all the things that should be in there out there and then place them where they should be.

Researcher: Okay, so do you have to keep up with the inventory management system?

PR Agent: We don't have a system for that. We just put things there, send them out. And once we realize there are only a few products left, we count them, take inventory, and ask the client for more products.

PR Agent: OK, so you're just eyeballing.

Researcher: It doesn't necessitate any restructure for it.

PR Agent: Exactly.

Researcher: OK, all right. So when you talked about creating events using ChatGPT, you would say that you gain efficiency then overall to organize events?

PR Agent: Yes, I have.

Researcher: All right, good. Now we get into a category that's more about communicating. So maybe it's something that you will relate to more as a PR company. So one of the questions is have you used ChatGPT to help in your communication with partners, intermediaries or stakeholders? So I believe you said yes.

PR Agent: Yes.

Researcher: And exactly how would you say that ChatGPT has facilitated the management of your relationship?
PR Agent: Just by making my job more efficient, like I can answer emails quicker, I can write not that I didn't before but like write good emails and get my point across much easier. And also coming up with unique solutions or ideas that we wouldn't have thought about before because we work under a lot of time pressure, so you don't have that much time to come up with an idea.

Researcher: Yeah, OK. Focusing now on international communication, so communication and other languages and then your own, would you say that it has facilitated as well?
PR Agent: Yes.

Researcher: Just a question regarding GPT in general. I know that this is something that you can integrate within your systems for example your emails or your customer service. Is it something that you did or do you just simply use it as a website?
PR Agent: I use it as a website, We haven't integrated it.

Researcher: Okay, it's almost over. We have just two more global questions to ask, just to let you know. So have you used ChatGPT within your marketing strategy, specifically in foreign markets? So I guess if you have customers in other countries, you have to adapt your strategy? Do you use ChatGPT to help adapt your strategy to markets?
PR Agent: Yes, we explain what brand it is and where they are located and then ChatGPT basically takes care of everything else.
Researcher: OK, so you use it to help you get to know the customer better.
PR Agent: Yeah. And just like how to adapt the text. For example, If i write “my customer is located in Paris, write a marketing strategy that will answer the needs”, it will tweak the message so that it integrates something that has something to do with paris.

Researcher: OK, I understand. Would you say that there is a difference in the tone or that a difference in the tone that's used according to the country or a difference in the tickets used in the communication?
PR Agent: Yes, because you can adapt it if you don't like the tone that it wrote, the first thing you can do is to ask him to change the tone and it would adjust the tone accordingly.
Researcher: OK, so this is something that you have to do by yourself to ask to change the tone? Or have you noticed that it's doing it by itself maybe?
PR Agent: It does it by itself if I have been clear in my message that I want it in a specific tone.
Researcher: Yeah, Okay, have you used it to ask about this, the specific market and what's specific to a certain market, just to get some general insights on the mindset of a country for example?

PR Agent: We have done it with America where we did have an event for a company that's based there. So based on what the client had said and that they were from America, we told ChatGPT to propose some ideas that we thought they would like.

Researcher: OK. So you used it to target the American market specifically. And do you feel like you gained valuable insight from ChatGPT targeting specific markets?

PR Agent: Yes, the answers were really adapted to the type of market.

Researcher: How would you say it helps you specifically?

PR Agent: Like I said, we work under a lot of time pressure so sometimes you don't have the time to properly think. And I think that ChatGPT gets you to the point faster. It's not that I wouldn't come there and like I wouldn't come to the same conclusion on many things. It's just that I don't have the time to sit and think so, yeah.

Researcher: So you would say that saves you the research time.

PR Agent: Exactly.

Researcher: Okay. So last question, have you noticed any challenges or limitations for using ChatGPT or within your international business?

PR Agent: Not the international business, but the local business because he doesn't have a great Swedish platform yet.

Researcher: What do you mean by that?

PR Agent: Some texts in Swedish can be a bit old fashioned Swedish.

Researcher: Yeah, a bit too formal

PR Agent: Exactly.

Researcher: Okay, within the company has there been any concern of using ChatGPT because of maybe the accuracy or just giving away information to a platform or anything of that nature?

PR Agent: No, we haven't had any problem using it.

Researcher: Okay. And do you have anything further to add that you would like to add to the conversation?

PR Agent: No, not really. I think we've brought up everything.
Researcher: Do you know if you are using it more extensively than your own experience? because of some of the questions concerning if you have tried to scale or further develop your product and service through ChatGPT in foreign markets, has any of your colleagues done that?
PR Agent: Actually, I don't know. We work on many different projects, so I don't know.
Researcher: And because you're working in the international market, in the legal aspect, have any of you guys used it, like maybe for research on copyright infringement with the commercial department or other international regulations?
PR Agent: Not that I know of.
Researcher: OK. OK. Well then that's it. So as I said, if you, if you wish to have a look at the transcript, you can ask us of course. If you wanna make sure that you didn't release any confidential information or anything like that.
PR Agent: Yes, no problem. I don't. I don't need to read the transcription.
Researcher: OK, if you ever change your mind, just know that it's an option of course. And one last thing, it might be a possibility that we have one or two follow up questions. So would that be an option to keep the line open to send you an email to ask you?
PR Agent: Yes sure.

Researcher: OK. Yeah. Well, that's it then thank you so much for your time. It really helps us in our research. So we appreciate it.
PR Agent: No problem.
Researcher: So we keep in touch with you if we need anything else. And yeah, you have a good day. Thank you so much. Bye, bye.
Appendix L. Transcription export expert

Interview 15-05-2023
Duration: 45 minutes
Participants: Anaïs Lallée and Nana Muco (Researchers), Anonym Export Expert

Researcher: All right. So before we begin the interview, we will just need your informed consent if you agree with everything.
Expert: Yes.

Researcher: Okay. So, first of all, could you tell a little bit of the nature of your business?
Expert: So without citing my clients with whom I work at the agency where I am, my purpose is basically accompanying French firms, who want to export their activities in France. In my company we are all divided into different sectors. Some of them are covering the set of industries. Other ones of the healthcare of the ones of the sport of the other ones of the tech industry, and we all have our field of knowledge and private clients that we accompany a company abroad and our goal is to help them improve their selling or management in these territories to help them find their partners and give them more informations about the current markets, if they don't know anything about it. For example, one company can be very aware about the situation of a market in Spain, but that same market is going to be completely different in Germany. Or we aid companies that are not able to find enough solutions for their sales or are not able to finance a private company for market studies… reasons like this. My company we are here to find the perfect solutions really on the information that we give and the financial situation to help them access the information they seek.

Researcher: Okay, perfect. Um, So let's cut to the chase and I'll just ask you straight up in your opinion on what are the main advantages and disadvantages of using ChatGPT or other generative AI in international business, compared to traditional approaches?
Expert: I would say that the char GPT is 90% an advantage for us because You can address ChatGPT in exactly three different languages in the same conversation and it will automatically respond to these to the language that we use and use the information provided. They are able to give us very precious and very specialized answers most of the time. Also they're able to give us all the sources that they use when we ask them. The
big disadvantage of ChatGPT for my personal use is that ChatGPT uses sources based on the previous year, so 2021 and we are already at the middle of the year 2023 which means that the last actualization of ChatGPT was almost one year and a half ago and in my work, we are mostly working with regulations and certifications labels and that kind of information. For example, governmental rules about a specific market that are yearly or monthly renewed and that can be a little problematic for us when we are seeking for very, very fresh information.

Researcher: Okay. Did you use any other type of generative AI apart from ChatGPT
Expert: No.

Researcher: No. Okay. So overall, would you say that ChatGPT is associated with economical benefits? Whether it is saving costs or generating more revenue or improving efficiency?
Expert: I would say it's a financial benefit yes as it would be a benefit for our clients because the organization bills the number of days that we spend on a file. So for example if you spend 10 days on a client for the search of his information you would have him making pay for 10 days of work, ChatGPT helps you get some information faster but there is also A problem which is that at the time ChatGPT is not able to replace humans entirely. So it means that all the information that ChatGPT gives you, you have to control them, you have to look if the sources they use are correct. And yeah, basically, it enables you to have information all in one such as who are the biggest competitors of that sector or What's the regulations of a product. It gives you some kind of information but you still have to verify this information. So for example, on 10 days that you spent, you would be, it would be nine days if you can, look at that way.
Researcher: Okay, so still one day less to pay for the companies that you are helping?
Expert: Yeah, for the entrepreneur, it would definitely be an economical benefit.

Researcher: Okay, so since you help companies exporting. I would like to ask you, if you have ever used ChatGPT to identify risk and opportunity across borders? Have you ever operated a PESTEL or SWOT analysis?
Expert: No, never not to identify opportunities, or risks. No, I don't use it for this. I use it to find actors of the sector competitors. Or maybe partners. I use it for laws. I use it for regulations. But I don't use it for this.

Researcher: Okay, that was my next question actually if you have ever used the tool to help compare Companies within a market.
Expert: Yes, I did. I could actually give you, in the chat, one example of a question. So, this is the question that I asked to ChatGPT and the question in English would be, Can you give me names of shops or distributors of materials and equipment of a certain
product? And the answer ChatGPT gave me is seven big actors in that sector in Germany.
Researcher: According to that answer or maybe other times that you've asked that, would you say that the answer is reliable?
Expert: It would be 50% reliable. Because when I asked these questions, I already knew which actors are big or important and what kind of actors they are. For example in the case I stated I already knew the questions and in that one, I would say he gave me a list of seven actors but one actor doesn't exist anymore because the company closed in 2014 and two of them, he said that they were shops but they were actually wholesalers. So I would say it's 70% accurate.
Researcher: Okay, so for someone who doesn't know anything at all about the market and just uses ChatGPT. As a first step, would you still say that it's reliable?
Expert: It is reliable to have general knowledge of a sector or some actors. But if you go into a more detailed discovery of a concept or a market ChatGPT could say or give you information that is false or no longer used.
Researcher: Okay, does it save time doing the work compared to only human research?
Expert: Yes.

Researcher: Okay. In the case of foreign markets in which your help companies are established, have you ever tried to scale or further develop their products through ChatGPT?
Expert: I never tried to develop a product or service from one of my clients that I accompany, but I have tried to compare if they had competitors on the German market by saying “I have a question for you, one of my clients is doing this and have troubles identifying actors in this market who are basically doing the same. Can you find some for me?” And he did.

Researcher: Okay. And within the process of exporting to a new market for your companies, I guess that you run into issues sometimes, has ChatGPT ever helped you find innovative solutions that you never thought of before to problems that's your had?
Expert: Not for the moment, but it helped me save some time. And I would say, also help me clear some interrogations I had where I was a little bit in the dark. For example, I asked him if it was forbidden to produce foie gras on that market so, I asked ChatGPT and he said that it is not allowed to produce in Germany, but you are allowed to sell it, Then I asked him “Can you give me the source where you found this” and he gave me a link of the Federal Government Health Department where I was able to find the information that producing this way is cruel for animals and therefore forbidden on the market but you were allowed to sell it.
Researcher: Okay, so it helps with the decision making and the overall research process.
Expert : Yes. But, I would consider that ChatGPT is for me a tool that helps me gain some time or to find information that I cannot find, but it will never replace the human decision factor.

Researcher : So you told me that you use it to help within the logistic operation as well. so, how did you use it, for example, do you use it to forecast demand, or route optimization, inventory management, custom compliance, supply chain management, any of those?

Expert : Not on, not on that side because on the logistics side, I don't use it but I could use it, I would use it for prospection and I do it when I'm prospecting some people.

Researcher : Okay, didn't you tell me something about the custom compliance?

Expert : Yes, yes, yes. When we have some kind of custom compliance, for example if a client told me on the phone that I was about to pay a certain amount of money for a product but then it happens to be higher than expected. So I asked ChatGPT “Can you write me a letter of compliance of what I should answer. When one of my customers said this, I copy/paste the mail of my custom and he wrote me an answer. Yes.

Researcher : Okay, so helps to manage those sometimes complicated process of custom

Expert : Yes, which is also good is that I tried it in different languages and ChatGPT was able to identify what kind of phrases or words would be better to use either in French or in German. So, it was very accurate in both languages even though they were still stuff and Things that I that had to be corrected or changed in the mail.

Researcher : Yeah. Okay. Anything regarding the supply and supply chain management. System risk management.

Expert : I personally have never used it but I know that some of my coworkers used it and they are very happy about it because it's giving some crazy solutions where they collectively gather information and ChatGPT uses it to give them the correct answers and tools.

Researcher : Yeah, so you heard that ChatGPT helped somehow to better strategic planning

Expert : Yeah and actually I did use it for management one time where I told him “I have one of my clients who is doing this”. I mean I didn't say it like this, but i said “I am facing a problem. What would be the solutions for me? And then he detailed all the five he said in my opinion I would do this; and he articulated different solutions with a step by step process” and it was very, very interesting.
Researcher: Okay, great. So just to come back on what you said about email or letters for customs or in other situations. Would you say that ChatGPT has helped the formation of international, the management of international communication.

Expert: The emails that ChatGPT writes are correct. Especially in French, but in German. If I ask it to write me a prospection email, it is correct but it is too long and in the German working culture, no one writes emails that are that long. And it's too much blah-blah. and going over details. And that's not how it works in Germany, you give details yes, but the email is not supposed to be 18 sentences long.

Researcher: So there's maybe a cultural grasp that's lacking when offering redacted texts?

Expert: Yes, for example he wrote sentences in German that actually are correct, but no one says such as “Good morning dear sir or madam, I hope this email finds you in good health”, but no one says that in Germany it is too formal.

Researcher: So overall would you say that it has helped the communication with partners?

Expert: Yes because the email is not completely correct, but a fluent German would get the point.

Researcher: Okay., have you used ChatGPT to help with marketing strategy on the German market? Is that something that you deal with for your customers?

Expert: No, I have never because on our site, we are very close to our clients. and we exchange very often to understand their needs, and what they want. And very often what they want is not what they need on the German market. Because even though Germany and France are two countries who are very close, the international culture of working affairs is completely different. Let's take an example of one of my clients in this specific industry. He developed a very technical product that was gaining a lot of market share in France, every person was super interested as it was like the best product that they had ever sold on the French market. So they contacted me and said that they wanted to sell this product in Germany. So I contacted German partners and said “I have a French firm who is selling this and it works very well in France, they would like to be partners with you to sell their products in your German stores” but the Germans found the product interesting but it was not what they wanted. However they spotted another product of theirs that was completely different from the original offer. And they were interested in that. So what you want to sell on the German market is not always what would be asked by the German customers, it’s not the same demand, so I got a little lost there so I don't remember what your question was.
Researcher: No, that's good. I'm just gonna keep going on what you said and ask you then if ChatGPT has ever helped you on matters such as that one where you need knowledge of the market and to think out of the box.

Expert: No, because ChatGPT would tell me that as an AI, it is not able to give you an opinion because I'm only an AI and cannot recommend you any strategy on the market. It depends on what the Germans want to buy. It would maybe give me an idea but it will never tell me as a human, what I should do.

Researcher: Okay, so something about ChatGPT is that depending on the way you prompt it, depending on the question asked, you can get different answers. So do you think that for example, you would benefit from being trained on GPT and how to use it to get the best advantage of it?

Expert: Um, to be honest, I don't think I am aware of knowing the full capacity of ChatGPT and I am absolutely certain that there are courses of things that could help us to use ChatGPT in a much much better way in order to find information and to help us make good decisions but ChatGPT as of now is not able assume the full extent of human decisions, human acceptance. It's not 100% able to replace the human factor.

Researcher: Yes.

Expert: I use GPT a lot for example, if I have a demand from one of my clients who wants me to do a regulation study about a specific product that they want to sell in Germany but they know that the industry in question is very developed in Germany and therefore there are more rules and regulations as the Germans are very strict with international laws, they are doing a lot to regulate the Chinese imports for example. Therefore I write specific words on ChatGPT, for example: “Can you help me find all the different regulations that are specific to that kind of product” and ChatGPT is able to tell me about the regulations regarding that specific product in Germany. And when I ask the sources he is able to give it to me.

Researcher: Okay. Is it reliable regarding the regulation aspects?

Expert: As I said it is reliable, but we still have to see if there are new regulations that came out since the last time it was actualized. Sometimes it can be 2022, but it depends on also, for example, for that previous case, I asked him. When were you last actualized on that market and he said, my last actualizing or actualization of the regulation of that market is from 2019.

Researcher: Okay. All right, so, except for the actualization of integrated datas, do you see any other limitation in using ChatGPT? Is there anything else you would like to add?

Expert: I don't think that there is any other limitation. Because when he's not able to give me the answers, he always says “I can't be certain of the answers that I'm giving, go on that specific website or go to that federation as they will be able to answer your
questions.” So even when ChatGPT is not able to give you the answers, he will give you websites or actors that are able to help you.

Researcher : Yeah. Have you ever seen ChatGPT having any bias or inaccuracy that arise from different cultural contexts and languages?
Expert : You mean cultural differences?
Researcher : I mean cultural biases. For example, some could say that if a person is German they must be hard-working. That's a type or bias because you cannot make assumptions about someone's work ethic based solely on their nationality.

Expert : Never. It takes into account some factors not but not the stereotypes. My colleagues and I once asked for fun what Chat GPT thought of the French and he answered that he could not give an opinion and proceeded to give me factual information on France but it will never give its personal opinion such as “French are lazy” or “always striking”, or “French love to eat escargots”

Researcher : Huh. Okay. Um, just one question. So as I told you that is a part of what we call generative AI is that something you ever recommend to entrepreneurship you assist?
Expert : Mhm, of course. It's part of today’s problematic. In my line of business I have more and more clients selling AI Solutions instead of in-person services. As an example one of them developed an intelligent chatbot that is now working on the five continents and used by almost 100,000 establishments. The chatbot is represented by a small logo on establishments' websites and users can click on the chat box to ask their questions. Approximately 90% of inquiries can be resolved through interactions with the chatbot who will respond with details. If a question can not be answered the chatbot notifies the company's staff who will update the chatbot's program to ensure that the next time a similar question is asked, the chatbot can provide accurate answers. So there are human behind it actualizing it but it is a solution now that a lot of these establishment are looking for as it is very, very, very well working. And it's a rising interest in this industry.
Researcher : Okay, so that's something that you recommend to firms that you assist in their international endeavors?
Expert : Of course.

Researcher : And as you told me earlier, the particular agency you are working for recently raised the topic of using ChatGPT and were even encouraging that behavior?
Expert : Yeah, they asked what our opinion on ChatGPT was and said all departments were benefiting from it so they encouraged us to use it with our company email address as the questions and answers that we collectively feed into it create a database of knowledge so that specific questions regarding specific industries could benefit all.
Researcher : Since you use it a lot. Do you use the free version online or the latest updated version Gpt4?
Nana M.: Okay. because the latest one especially in the field of law has a much better accuracy.
Expert: Okay, but do they have fresh information from 2023? Because that would be really more interesting for the organization because the sector I am personally in is super super large. I'm meeting a new company basically every week, and they are all doing something different. So every week, I have to integrate new knowledge on the market, or product and using ChatGPT is actually great because it enables me to identify the big actors, the regulations, the best sellers, the competition and where they are located. But as I said, these datas are from 2021 and regulations change mostly every two, three or maximum five years.

Researcher: Okay. Um, well, thank you so very much. This was really great inside, it's
Expert: You're welcome.