

Impact of a digital sales strategy on the distributor relationship at VBM Medical

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Abstract

Title: “Impact of a digital sales strategy on the distributor relationship at VBM Medical”

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Indirect export strategies of small and medium-sized medical device manufacturers rely on strong relationships with international distributors. Faced with complex regulatory environments that vary across countries, manufacturers are challenged to manage an extensive network of distributors and develop a successful global sales strategy.

This paper aims to investigate the impact of digital sales channels on the relationship between the manufacturer VBM and its international distributors. Insights into the distributor sales process across different markets are provided to explore how manufacturers can deliver effective support at various stages.

The research used in-depth interviews with representatives from international distributors of VBM to gather qualitative exploratory findings and create new knowledge on the research topics.

The findings indicate that medical device sales are driven by personal relationships between distributor sales representatives and healthcare providers. The distributor sales process is influenced by the organizational size, market size, and the healthcare system.

The paper suggests that manufacturers can strengthen the relationship with distributors by effectively supporting their sales process activities. Manufacturer support is evaluated based on product & brand performance, product trainings, communication quality, promotional support and operational transactions. Digital sales channels can supplement, support or substitute existing manufacturer support activities to improve distributor sales performance. A model is developed for adopting a strategic approach for VBM in introducing new sales and communication channels, ensuring their positive contribution to the relationship quality with distributors.

Keywords: indirect export strategies, international distributors. digital sales channels, manufacturer support, medical device sales, relationship quality

Resumo

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As estratégias de exportação indireta dos fabricantes de dispositivos médicos de pequena e média dimensão dependem de relações fortes com distribuidores internacionais. Confrontados com ambientes regulamentares complexos que variam consoante os países, os fabricantes devem gerir uma extensa rede de distribuidores e desenvolver uma estratégia de vendas global eficaz.

Este estudo investiga o impacto dos canais de vendas digitais na relação entre o fabricante VBM e seus distribuidores internacionais. Foram realizadas entrevistas detalhadas com representantes de distribuidores internacionais de VBM para obter resultados qualitativos exploratórios.

Os resultados indicam que as vendas de dispositivos médicos são impulsionadas por relações pessoais entre os representantes de vendas dos distribuidores e os prestadores de cuidados de saúde. O processo de vendas dos distribuidores é influenciado pela dimensão do mercado, da organização e pela estrutura do sistema de saúde.

O estudo sugere que os fabricantes podem fortalecer a relação com os distribuidores apoiando eficazmente suas atividades de vendas. O apoio do fabricante é avaliado com base no desempenho do produto e da marca, nas formações sobre o produto, na qualidade da comunicação, no apoio promocional e nas transações operacionais. Os canais de vendas digitais podem complementar, apoiar ou substituir as atividades de apoio existentes do fabricante para melhorar o desempenho de vendas dos distribuidores.

Um modelo é desenvolvido para adotar uma abordagem estratégica na VBM para a introdução de novos canais de vendas e comunicação, assegurando seu contributo positivo para a qualidade da relação com os distribuidores.

Keywords: estratégias de exportação indireta, distribuidores internacionais, canais de vendas digitais, apoio do fabricante, vendas de dispositivos médicos, qualidade do comunicação

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List of Abbreviations

B2B	Business-to-Business
Covid-19	Coronavirus SARS-CoV-2 2019
DSPM	Distributor Sales Process Matrix
KOL	Key Opinion Leader
SME	Small- and Medium-sized Enterprise
VBM	VBM Medizintechnik GmbH (eng. VBM Medical)
USP	Unique Selling Point

1 Introduction

1.1 Problem & Research Objective

VBM Medizintechnik GmbH (hereinafter: VBM) is a small and medium-sized manufacturer of medical devices, based in southern Germany. Since its beginnings in 1981, the steady growth of VBM has been driven by a successful export strategy, distributing to over 100 countries worldwide. VBM's internationalization strategy relies on indirect distribution channels via exclusive distributors in each target country. This approach enhances the co-dependence between manufacturer and distributor to achieve common long-term business objectives. Hence, VBM's international sales performance is determined by the relationship quality with international distributors.

However, the medical device industry is characterized by a complex and highly regulated purchasing structure that varies across countries. This complexity intensifies manufacturers' reliance on local expertise and market insights of distributors, who typically handle multiple products from various brands. Managing this network of international distributors and ensuring their products receive sufficient attention is challenging manufacturers to develop a successful global sales strategy.

The digitalization of sales has offered new opportunities for interacting with customers, facilitating a more efficient and effective global sales strategy. In this context, VBM is exploring the addition of digital sales channels to enhance distributor engagement and improve the efficiency of its sales activities. The goal is to strengthen relationships with international distributors and develop a strategy to customize support activities that align with the distributor's sales process.

Relationship dynamics between manufacturers and distributors have been extensively studied in existing scientific literature. However, there is limited research focusing on the medical device industry, particularly regarding the relationship management of small manufacturers with an international network of distributors. Furthermore, investigations into the step-by-step sales process activities of distributors in the medical device industry remain largely unexplored.

This research paper aims to investigate the impact of digital sales channels on the relationship between VBM and its international distributors. The objective is to gain insights into the distributor sales process across different markets and explore how manufacturers can effectively

support sales activities at various stages. In this context, the effects of implementing three distinct digital sales channels to the sales strategy of VBM is examined. Ultimately, recommendations are provided and a conceptual framework is developed to analyze and improve support activities to the distributor sales process.

1.2 Research Questions

Investigating the impact of digital sales channels on the manufacturer-distributor relationship involves analyzing three subordinate topics. This paper focuses on addressing the following research questions:

1. How is the *sales process of distributors* structured and what are relevant activities performed?
2. Which *manufacturer support activities* are essential at each step of the distributor sales process?
3. What are the effects of *digital sales channels* on the performance of distributor sales activities and the relationship with manufacturers?

These research questions were analyzed by means of qualitative exploratory research. Representatives of international distributors of VBM were selected for in-depth interviews to gather expert knowledge and experiences in various markets and countries. In light of the limited research on the manufacturer-distributor relationship in the medical device industry, this research method was considered adequate to collect new ideas and perspectives about the research topics. The results of the primary data collection are combined with the findings in the literature review to provide a qualitative interpretation of the research questions.

1.3 Structure of the Paper

The following provides an overview of the chronological structure of the present paper.

First, the theoretical background of the relevant topics covered throughout the research is outlined. The first chapter analyzes the internationalization strategies of small and medium sized enterprises (2.1), with a particular focus on indirect sales distribution in the medical device industry (2.1.1). The subsequent section (2.1.2) investigates theoretical conceptualizations of the manufacturer-distributor relationship management. Furthermore, section 2.1.3 includes a model for analyzing the step-by-step sales process activities with additional considerations for medical device sales.

The company VBM is introduced in chapter 3, presenting the history and product range. Section 3.2 summarizes the export strategy and international sales structure of VBM, including an overview of distributor agreements. Finally, the digital sales strategy is presented to give context to the research paper (3.3).

After the secondary data collection and company presentation, the paper continues with the primary data study. The research methodology is explained (4), including the interview design (4.1) and data analysis execution (4.2).

In chapter 5, the research results are summarized and described according to a pre-defined categorization. Next, the empirical findings are interpreted and analyzed in the discussion (6) to provide answers to the research questions. A framework is developed to analyze the sales process activities of international distributors (6.1) for VBM to identify effective support activities along the process (6.2). In addition, the impact of digital sales channels on the manufacturer-distributor relationship is presented (6.3) and recommendations for a practical guideline for VBM provided (6.4).

In the end, the limitations of the present research are identified (7) and a brief conclusion of the paper outlined (8).

2 Theoretical Background

This chapter provides a review of extant scientific literature on internationalization strategies of small and medium sized enterprises, including indirect distribution channels within the medical device industry. Besides, the digital transformation of sales is contextualized for the subsequent empirical research.

2.1 Internationalization Strategies of SME

Market expansion and exports are essential for the survival and growth of Small and Medium-sized Enterprises (hereinafter: SME). However, due to their limited capacities compared to larger competitors, SMEs often face challenges in successfully managing the international distribution of their products. To navigate this complex landscape, SMEs adopt various strategies for international distribution (Di Maria & Ganau, 2017).

Di Maria & Ganau (2017) highlight the main forms of internationalization, which involve either owning the international distribution network or partnering with foreign firms, thus representing the choice between direct and indirect international distribution. Direct distribution includes establishing a dedicated salesforce for export, either based in the headquarters and traveling abroad or setting up a subsidiary in foreign markets. While direct distribution offers more control and knowledge over the distribution process, it also comes with higher costs, risks, and time investments.

In contrast, indirect distribution involves collaborating with local distributors, allowing SMEs to reach a larger number of markets while reducing costs, and risks, and increasing flexibility. However, indirect distribution entails a longer and more complex supply chain, as well as relinquishing some control over the distribution process. Nonetheless, distributors can provide valuable knowledge and references, particularly when entering markets with high cultural and social distances (Guenzi, 2011).

The choice of market entry method depends on various factors, including the complexity of the products and the resources available to the company. SMEs generally favor indirect exporting in their initial market entries to mitigate the risks of failure and reduce costs. To overcome the complexity and loss of control associated with indirect distribution, it is essential to establish agreements and contracts between the parties involved (Di Maria & Ganau, 2017).

In the context of international markets, distributors play an important role in representing manufacturers and building relationships with customers (Lai et al., 2015). They are responsible

for customer service, infrastructure, logistics, transportation, specialized sales, as well as expertise in financial requirements. For manufacturers entering unknown markets with foreign cultures, distributors serve as valuable partners in navigating the complexities of international trade and expanding their reach effectively (Rickards & Ritsert, 2011).

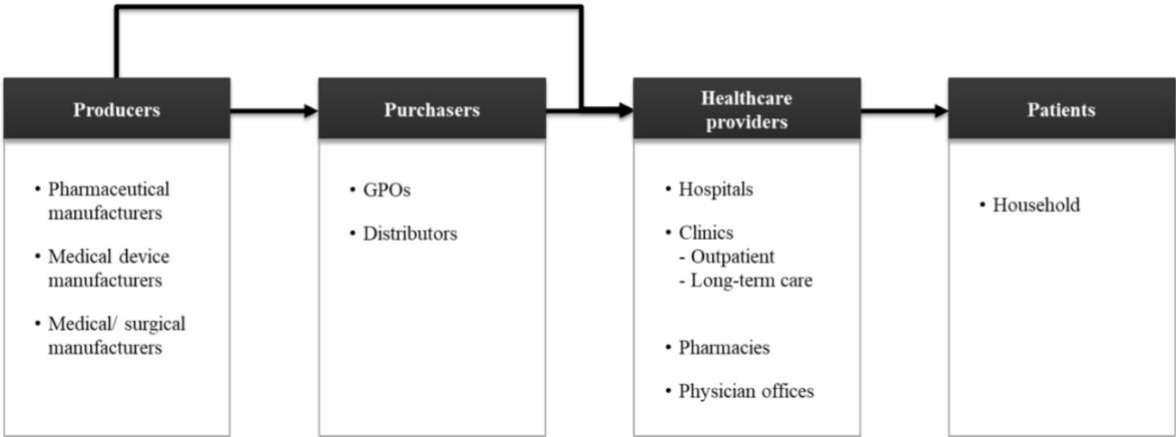
2.1.1 Indirect Sales Distribution in the Medical Device Industry

Despite existing similarities between manufacturer-to-distributor and traditional business-to-business (hereinafter: B2B) interactions, there are notable differences to consider. The main distinction lies within the fact that in traditional B2B transactions, the buyer acquires products as input for their own business model.

In contrast, in manufacturer-to-distributor activities, the product sold remains unchanged and is resold by the distributor to the end customer, retaining the manufacturer's trademark. This key difference suggests a higher level of interdependence between manufacturer and distributor regarding product supply and market access. Moreover, the resulting relationship dynamic might result in a power asymmetry favoring the manufacturers due to their product knowledge and experience. In general, stronger collaboration is required to achieve common goals such as maximizing revenue, enhancing brand reputation, and increasing market share (Trivedi et al., 2023).

Figure 1 serves to illustrate the supply chain process within the healthcare and medical device industry, which is characterized by a diverse range of products, specialties, buyers, and end users. At the forefront are the manufacturers, responsible for designing, producing, and delivering medical devices. These devices are sold to purchasers, who may include distributors or Group Purchasing Organizations (GPOs), serving as the direct customers of the manufacturers (García-Villarreal et al., 2019).

Figure 1 Supply Chain Process in the Medical Device Industry



Source: García-Villarreal et al. (2019)

Both manufacturers and distributors engage in various activities that affect each other and contribute to the success of the relationship. Manufacturer activities include product training, information sharing, production planning, R&D, pricing, and marketing support. On the other hand, distributor activities entail sales and physical product distribution, market intelligence, local marketing and brand diffusion, inventory management, demand forecasting, customer service, and compliance with regulations and distribution agreements (Trivedi et al., 2023).

The journey of medical devices extends to healthcare providers, such as hospitals, clinics, and healthcare facilities, where these devices are finally utilized in patient care. Within this framework, medical devices and surgical instruments are predominantly procured by hospitals. Depending on the country’s healthcare system, hospitals can be either privately owned or publicly operated, with procurement practices varying respectively. In public hospitals, purchasing processes often revolve around formal procurement processes called “tenders”. Hospitals publish tenders with requests for proposals and quotations of medical devices. Submitted bids of interested suppliers are evaluated based on criteria such as price, quality, delivery time or service support (Miller et al., 2019). In many markets, hospital tenders are characterized by prioritizing cost efficiency over product quality (Hinrichs-Krapels et al., 2022).

Notably, the purchasing process within hospitals is highly complex, involving multiple decision-makers. While physicians are the primary users and experts on medical devices, they may not always hold the ultimate decision-making authority regarding supplier selection. In many instances, purchasing departments within hospitals are gaining influence in procurement

decisions (Miller et al., 2019). Additionally, other stakeholders such as hospital managers, finance departments, nurses, and biomedical engineers also play pivotal roles in decision-making processes (Hinrichs-Krapels et al., 2022). These decision-makers exhibit diverse interests and preferences, which can be categorized into financial and non-financial customer needs. While purchasing departments and managers may prioritize value for money and cost-benefit ratios, physicians and nurses may lean towards products offering superior medical performance and enhanced patient outcomes. Thus, understanding the distinct priorities and preferences of various stakeholders for each hospital is critical for effective sales strategies of distributors in the medical device industry (Miller et al., 2019).

Even though not being directly involved in selling to healthcare providers, medical device manufacturers maintain close ties to physicians and Key Opinion Leaders (hereinafter: KOLs). KOLs are respected physicians, clinicians, or researchers holding influential positions within their respective medical specialties by shaping clinical practice, research priorities, and healthcare policy. For medical device manufacturers, they serve as trusted advisors for the development of innovations. (García-Villarreal et al., 2019)

2.1.2 Manufacturer-Distributor Relationship Management

The relationship between manufacturers and their distributors needs to be nurtured and managed on both sides. While the primary objective in any business relationship is typically focused on creating value for the customer, it is equally important to acknowledge the activities and efforts of the distributor in this relationship dynamic, as both parties contribute to and benefit from value creation. (Trivedi et al., 2023)

Despite the significance of this relationship, there lacks a unified framework that comprehensively illustrates value creation on both sides. In general, manufacturers assess relationship quality with their distributors based on sales performance, including revenue, volume, and customer retention. Additionally, indirect benefits such as innovation, market access, and intelligence are also valuable to the relationship.

Trivedi et al. (2023) highlight three key activities for distributors to optimize sales performance: providing superior customer service to healthcare providers, assisting the manufacturer with local market promotion, and maintaining strong and long-term relationships with end customers. Managing a positive delivery of these activities results in improved sales performance for the distributor, which in turn will translate into increased sales for the

manufacturer. From the manufacturer's perspective, this implies a focus on supporting distributors' sales activities to achieve a mutually beneficial outcome, thus improving the overall relationship quality.

In order to deliver support activities that create value, manufacturers must understand distributors' needs and expectations. Literature suggests that distributors evaluate manufacturers based on activities such as product quality and delivery performance, service support and personal interaction, and manufacturer know-how and time-to-market (Lai et al., 2015). Satisfaction with the performance of these activities is achieved when meeting or exceeding the expectations of distributors (Guenzi, 2011).

However, the evaluation of performed activities by the manufacturer may differ from the distributor's perception. Individual perceptions of performance play an important role in assessing the quality and reliability of support activities and how these perceptions align with expectations (Johnson et al., 2001). Moreover, the diversity among distributors further complicates the relationship dynamics, as each distributor may have different expectations and value perceptions. This becomes particularly evident in long-term relationships where transactions become repetitive, communication is less frequent, and internal perceptions may diverge. Therefore, manufacturers must remain attentive to the underlying needs and preferences of each distributor to foster successful and enduring partnerships (Kumar et al., 2022).

Manufacturer Evaluation Criteria

Part of analyzing the manufacturer-distributor relationship is to understand how manufacturer activities impact the distributor's ability to sell and how these activities are evaluated. This understanding provides a pathway to creating value within the relationship.

Distributors base their evaluation of manufacturer performance on the criteria outlined below (Trivedi et al., 2023):

- **Reliability:** Ensuring the correct products are delivered on time with the promised quality. High switching costs in manufacturer-distributor relationships emphasize the importance of trust and reliability.
- **Assurance:** Distributors need to trust in the capability and expertise of manufacturer employees during interactions.

- **Responsiveness:** The ability to provide quick and adequate solutions to problems is crucial.
- **Accessibility:** Easy access to and identification of the right contact person of the manufacturer is essential for effective communication.
- **Image Quality:** A good brand image of the manufacturer is transferred to resellers, resulting in market acceptance and higher earnings for the distributor.

The above quality criteria are applied on a wide range of activities performed by manufacturers. In an attempt to organize and categorize these manufacturer activities, the existing literature offers differing approaches. Table 1 provides a summary of the five key overarching attributes of manufacturers that impact the operating performance of distributors, in this paper referred to as “Relationship Dimensions”.

Table 1 Relationship Dimensions

<i>Relationship Dimensions</i>	<i>Expectations</i>
Product & Brand Performance	More product additions and a recognized brand image improve the distributor’s ability to sell.
Product Training	Obtaining superior product knowledge enables distributors to satisfy customer needs and provide customer service.
Communication	The method and efficiency of personal interactions and information sharing provide transparency in business relationships.
Promotional Support	The amount and quality of marketing support assists distributors in creating awareness & building networks.
Operational Transactions	The operational system set up by manufacturers regarding ordering, delivery, negotiation, etc. impacts costs and time for distributors.

Sources: Johnson et al. (2001), Trivedi et al. (2023)

All activities performed by manufacturers can be associated to at least one of the five relationship dimensions. “Product and brand performance” implies the general business strategy and success of the manufacturer and observes internal activities not directly targeted at distributors. In contrast, the remaining four dimensions involve activities with direct contact to distributors. “Product training” and “promotional support” include measurable support activities manufacturers provide to distributors, whereas the dimension of “communication” focuses on the type of sales channels used, as well as the frequency and quality of interactions. In addition, the relationship satisfaction is influenced by the nature of “operational transactions” that distributors engage in on a regular basis. (Johnson et al., 2001; Trivedi et al., 2023)

The distributor has certain expectations regarding the performance of each relationship dimension. The manufacturer can manage those dimensions and improve their efficiency and effectiveness by introducing new sales strategies. Relationship value is created by meeting or exceeding these expectations, thus improving the mutual satisfaction level of the relationship (Johnson et al., 2001).

2.1.3 Distributor Sales Process

For manufacturers to deliver effective and valued support activities, it is essential to develop an understanding of how distributors resell the products in their respective markets. By assisting distributors in their sales activities, the relationship quality can be improved, thus creating value along the sales process (Trivedi et al., 2023).

Various models describe the step-by-step sales process, which varies between the type and size of industries and markets. Theoretical frameworks have evolved alongside technological advancements, influencing selling capabilities significantly (Moncrief & Marshall, 2005). Dubinsky's well-known 7-step selling model remains prominent, consisting of prospecting, pre-approach, approach, presentation, overcoming objections, closing, and follow-up stages. Moncrief & Marshall (2005) expand upon this model, emphasizing the evolution of each step and underscoring the importance of value selling and relationship-building with profitable customers.

In this research, the distributor sales process is analyzed according to the comprised model of three sales phases: pre-selling, selling, and post-selling. In scientific literature, these phases have been alternatively described as follows (Fraccastoro et al., 2021; Guenzi, 2011):

Pre-Selling Phase: **Identification of New Business Opportunities**

The sales process starts with identifying new business opportunities, or leads, in the market. Key activities involve prospecting, qualifying and identifying needs and solutions. Prospecting refers to the search and identification of potential leads, which can occur in networking events, engagement with existing customers or digital market research. Potential leads are then evaluated in the qualifying phase based on their financial capabilities, product needs and purchasing timeline. Relevant leads are approached and consulted with to identify if customer needs match the seller's value proposition.

Selling Phase: **Persuasion**

The selling phase is focused on persuading the potential customers through presentations and tactics of negotiation and closing the deal. The objective of the presentation is to demonstrate the product's value, highlighting its benefits, differentiating features and unique selling points (USPs). Depending on the type of product sold, this can occur either physically in meetings and workshops, or digitally in video conferences and webinars. This step is followed by negotiating the terms in the purchasing agreement. The objective for sales professionals is the successful closing of the deal, where the contract is signed by both parties.

Post-Selling Phase: **Relationship Management**

Once a purchasing agreement is reached, the sales process transitions to the relationship management phase. Ensuring post-purchase satisfaction is essential for potential future sales and the seller's reputation. Main activities include product delivery, customer service and follow-up strategies. Orders must be processed and delivered accurately on time. Subsequent product installations, trainings, customer inquiries and complaints are handled by different representatives within the seller's organization. Finally, maintaining a satisfactory relationship with the buyer is important to identify opportunities for cross- or upselling.

The tasks and responsibilities in each sales phase are driven by the structure and organization of the salesforce in distributor organizations. Commonly, distributor organizations include

individual sales representatives or sales agents, whose structure varies depending on factors such as market dynamics, product portfolios, and organizational strategies.

Sales representatives within distributor organizations may be directly employed or operate on a commission basis, depending on the business model and market preferences. Their responsibilities are often segmented based on territories, product categories, or customer segments to optimize sales efforts and maximize market coverage. Importantly, the number of assigned sales representatives significantly impacts the distributor's profitability, as the costs associated with maintaining a salesforce can be substantial and must be balanced against revenue generation (Fraccastoro et al., 2021; Guenzi, 2011).

The medical device industry has traditionally been dominated by medical sales representatives. Given the complexity and high stakes involved in healthcare products, these representatives are essential in navigating the abovementioned complex customer structures of the healthcare industry. They are tasked with acquiring in-depth product knowledge to effectively engage customers during the persuasion phase. Additionally, their value lies in building strong relationships with physicians, as trust often influences physicians' choices of medical devices (Chatterji et al., 2019).

Despite their significance, there is little research and literature focusing on the sales process activities of medical sales representatives and their organizational structures within distributor organizations. Understanding how these sales professionals operate within the distributors' market is valuable for optimizing sales strategies and enhancing overall sales performance in the medical device industry.

2.2 Digital Sales Transformation in Business Markets

The landscape of sales channels in B2B markets has evolved significantly over time, with various types of channels emerging to communicate with customers. Historically, in-person interactions dominated relationship-building in business markets due to their complexity, involvement of large investments and long-term relationship expectations. With the advent of digital technologies, new ways of interaction have emerged, including in-person, hybrid, and self-service channels such as ordering through e-commerce platforms (McKinsey & Company, 2023a).

The digital transformation of sales has revolutionized how businesses communicate. For international SMEs, digital sales channels offer a cost-efficient and effective way to reach customers globally, enabling better management of customer relationships. The accessibility and availability of information through digital technologies allow trust and commitment to develop faster, thus strengthening relationships (Kauffman & Pointer, 2022). Moreover, integrating multiple channels provides companies with the ability to be more dynamic in adapting to customer demands and catering to their needs.

However, managing a multi-channel sales approach effectively is important to reduce friction and ensure that channels complement each other (Fraccastoro et al., 2021). Guenzi & Habel (2020) provide a guideline for successfully integrating digital transformation into sales processes. The goal is to identify barriers to efficiency and effectiveness of existing sales functions and determine how to overcome them using digital technologies.

The four areas where digital transformation can enhance internal sales processes are termed "lacks" and include the following: speed, knowledge, reach, and perceived value. Speed is related to accelerating the internal flow of information or task execution. Digital tools can increase the efficiency of sales processes and reduce the time allocated to administrative tasks. Knowledge lacks stem from information asymmetry between salespeople or between the company and its customers. CRM systems are popular tools to record and standardize the flow of information, particularly regarding customer data. Reach refers to the ability to contact customers. Digital technologies amplify the number of sales channels a customer can use to interact with the supplier. Lastly, lack of perceived value occurs when the salesperson is unable to transmit the value proposition and cater to each customer's individual needs. Digital sales channels enable a more efficient tailoring of sales activities to improve the delivery of the value proposition by salespeople (Guenzi & Habel, 2020).

Digital sales tools can either substitute, supplement or support sales functions, providing multiple forms of interactions and creating value for customers. Substituting involves replacing traditional sales channels entirely with digital tools, supplementing refers to adding digital technologies alongside existing methods, and supporting focuses on helping salespersons carry out their activities more efficiently and effectively (Guenzi & Habel, 2020).

Digital technologies can be implemented across all three sales phases – pre-selling, selling, and post-selling. However, there is limited research available on how digital sales tools should be organized and introduced for B2B companies on an international level. Fraccastoro et al. (2021) organize sales communication into three categories, depending on their degree of digitalization:

1. *Traditional Channels*: in-person meetings, phone calls, mail
2. *Digital Channels*: online meetings, email, websites
3. *Social Media*: social networking sites, content communities

The following sections further examine the use of digital sales channels and social media in business markets and the medical device industry.

2.2.1 Digital Sales Channels

Digital communication refers to the exchange of information via electronic devices that enable remote interactions between geographically distanced parties (Murphy & Sashi, 2018).

McKinsey highlights the success of B2B companies in implementing hybrid sales teams, achieving e-commerce, delivering more personalized solutions, and digitizing sales efforts. While business customers still value in-person interactions, they prefer a mix of channels to communicate with suppliers (McKinsey & Company, 2023a). The types of digital sales channels can be divided into impersonal and face-to-face interactions.

Impersonal Digital Channels

Impersonal digital channels allow customers to interact with the company at any time without directly speaking to a representative. Examples include email, text messages, chatbots on websites, and webshops. For instance, Guenzi & Habel (2020) mention a manufacturer receiving direct WhatsApp messages from end customers to quickly resolve problems, bypassing distributors who may lack sufficient training or resources. WhatsApp serves as a supplement to distributor customer service, enhancing knowledge and speed.

Some companies adopt multiple ordering channels, such as an online portal, in addition to traditional methods like ordering through a salesperson. Others entirely replace their ordering systems with online portals (Guenzi & Habel, 2020). While this can enhance reach and speed within the salesforce, it may lead to channel conflict – a primary reason why B2B companies hesitate to introduce e-commerce (McKinsey & Company, 2023a).

Digital Face-to-face Channels

Digital face-to-face channels, such as online video calls, are valuable for personally connecting with customers without being physically present at the same location. Compared to in-person face-to-face interactions, it lacks emotional cues such as facial expressions and body language. Even so, it is effective to increase the frequency of interactions to share basic and rational information (Murphy & Sashi, 2018).

Companies incorporate hybrid sales teams, which are a blend of in-person and remote meetings with customers using online platforms like Zoom or Microsoft Teams. Studies show that even SMEs benefit from introducing additional inside sales agents to enhance customer engagement (McKinsey & Company, 2023a).

2.2.2 Social Media

Social media involves the creation and exchange of user-generated content on platforms such as social networking sites (LinkedIn, Facebook), online blogs, and content communities (YouTube). Unlike other digital technologies, social media is interactive and enables sharing and co-creation of content. It fosters a social connection among users across different geographical areas, often termed "online word of mouth," with effects similar to traditional word of mouth. For SMEs, social media has the advantage of enhancing the spread of information, serving as an effective support function for building relationships with international clients (Fraccastoro et al., 2021).

However, it often faces resistance from company management due to its negative consequences, such as privacy concerns or misinformation. Additionally, B2B companies usually lack expertise and skills to effectively utilize social media compared to B2C companies (Diba et al., 2019).

The primary function of social media in a B2B setting is as a marketing tool to build relationships and brand and firm identity. The most commonly used social media platforms in

business are LinkedIn, Facebook, and Twitter, with LinkedIn being the most popular (Diba et al., 2019).

LinkedIn

Besides being predominantly used as a recruiting platform, LinkedIn offers opportunities to connect, share information, and build relationships between industry professionals. Diba et al. (2019) define three main functions of LinkedIn in business settings:

- *Reputation:* LinkedIn is crucial for managing brand and firm reputation. It helps build credibility and trust.
- *Relationship:* More important than creating awareness, LinkedIn is used to manage relationships with business partners.
- *Conversations:* Sharing content facilitates connection with target audiences. Unlike traditional B2B conversations, LinkedIn allows for inter- and intra-business interactions between competitors, suppliers, and customers, helping to create awareness and position the brand against competitors.

2.2.3 Multi-Channel Sales in the Medical Device Industry

The medical device industry is witnessing significant shifts in customer interaction and engagement preferences. While product innovation was traditionally the key to competitive advantage, today, success is also determined by delivering a comprehensive customer experience. The Covid-19 pandemic has accelerated the trend towards digital engagement, with McKinsey reporting a 20-30% growth in online interactions. (McKinsey & Company, 2021)

Research now focuses on understanding the engagement preferences of healthcare professionals with sales representatives. This shift affects both direct and indirect distribution models, compelling sellers to adapt to hybrid forms of interaction. Physicians, in particular, prefer digital channels like email and video calls due to their busy schedules. Operational processes like online ordering are also highly valued by buyers. (McKinsey & Company, 2022)

Medical device manufacturers are responding to changing preferences by adopting a multi-channel approach, incorporating digital marketing, inside sales, ecommerce, and hybrid sales reps. Inside sales agents, in particular, are gaining traction for their ability to combine in-person and remote support effectively. Despite these advancements, integrating digital channels into

medical device sales processes remains challenging due to regulatory constraints and complex buying processes. Efforts to align digital and traditional channels are crucial for delivering superior customer experiences. (García-Villarreal et al., 2019; McKinsey & Company, 2023b)

Besides, existing literature primarily focuses on large medical device companies with direct distribution channels to international markets. Their size provides an opportunity to integrate sales processes and directly engage with end-customers worldwide. However, there appears to be a gap in the literature regarding SME medical device manufacturers that rely on international distributors. Specifically, research examining the use of digital sales channels between manufacturers and distributors in the medical device industry is scarce.

3 Introduction to VBM Medical

3.1 Company Presentation

VBM, short for “Volker Bertram Medizintechnik”, is a medical device manufacturer founded in 1981 in Sulz am Neckar in Southern Germany. Currently managed in its second generation, the family-owned business develops, produces and distributes its innovative medical products to over 100 countries worldwide. With approximately 190 employees, most of which at the Headquarters in Germany, the company is classified as a small and medium sized enterprise (SME) according to the recommendation of the European Commission (The Commission of the European Communities, 2003).

Product Range

VBM’s product portfolio is categorized into the three main business areas, each contributing to total revenue in the following order: Airway Management, Tourniquet Systems and Accessories for Anesthesia & Intensive Care (see Appendix A).

Airway Management products account for over 50% of sales and include VBM’s first product, the Monitor Control Inflator, a cuff pressure gauge for measuring the cuff pressure of tracheal tubes. Devices in this category are applied to ensure effective breathing and oxygenation of patients in surgeries, intensive care and emergency situations. VBM provides face masks, intubation aids, resuscitators, sets for cricothyrotomy and Laryngeal Tubes, the company’s best-selling product.

Tourniquet Systems regulate the pressure applied on tourniquet cuffs, which are used to temporarily block the blood flow on patients' upper and lower extremities in order to obtain a bloodless field for medical interventions. VBM sells both the electrical tourniquets as well as the corresponding cuffs and accessories.

The third business area encompasses a diverse array of products used as accessories in anesthesia and intensive care settings. These include various types of tubes, fixations, connectors, pressure cuffs and support arms that create the typical imagery associated with hospital environments.

3.2 International Sales Structure

The global presence of VBM extends across more than 100 countries, accounting for 64% of the company's total turnover, with domestic sales contributing 36% (see Appendix B). The export structure is organized into four economic regions: Europe, Americas, Asia Pacific, and Middle East & Africa. Among these, Europe stands out as the most significant market, commanding a share of over 72% of the company's sales.

The international distribution strategy of VBM relies on exclusive distributors in target countries. These distributors are granted sole rights to distribute and sell VBM-branded products within their designated territories. Accordingly, VBM generally has one distributor for each country. Yet, in certain larger markets various distributors are used for different business areas respectively. With a network of over 200 distributors globally, VBM maintains long-term and personalized relationships with each partner. Internally, distributors are categorized into A-, B-, or C-level clients, depending on revenue generation.

The sales department at VBM is divided into national and international teams, tasked with providing comprehensive support to distributors. This assistance encompasses a range of activities conducted via email, telephone, or virtual platforms like Microsoft Teams. Daily requests include advice and consultation on product use and preparation, requests for contacts and quotation, availability of products and spare parts and customer complaints by distributors and end users.

A critical aspect of distributor support is product training, aimed at equipping partners with in-depth product knowledge to enhance their effectiveness in representing VBM locally. Training sessions are conducted at various venues, including exhibitions, distributor offices, and the

VBM headquarters. The COVID-19 pandemic accelerated the adoption of virtual training methods, with platforms like Microsoft Teams facilitating remote product training sessions.

3.2.1 Distribution Agreements

In establishing partnerships with distributors, VBM Medical employs comprehensive contractual arrangements known as "Distribution Agreements." This agreement comprises two distinct contracts: the "Quality Agreement" and the "Supply Agreement." The former focuses on regulatory and quality-related aspects of the distribution. Of particular significance for this research is the Supply Agreement, which outlines all essential requirements and conditions governing the distribution of medical devices. This includes elements such as pricing, terms of payment, minimum quantities, sales forecasts, marketing strategies, and intellectual property rights.

The exclusivity of the contract implies that VBM Medical refrain from supplying third parties within the same territory and direct all related customer inquiries to the appointed distributor. The distributor, in turn, is granted the exclusive rights to promote the VBM brand and sell the medical devices within the agreed upon territory, using the original name and packaging. Purchase prices are based on VBM Medical's price list and may be subject to changes, whereby the distributor would receive a minimum 60-day notice. Resale prices, however, remain within the discretion of the distributor.

Both parties mutually commit to a minimum annual quantity of delivered and purchased products, guided by agreed-upon yearly forecasts detailed in the "Annual Budget." VBM Medical monitors the revenues generated by each distributor on a quarterly basis and provides additional support in the event of discrepancies. Moreover, distributors are responsible for advertising, promoting devices, participating in local and national exhibitions, providing regular updates on market conditions and competitor activities, and maintaining a sales network with trained representatives.

Recognizing the importance of customer service, distributors are authorized to offer technical product assistance if they qualify as "Authorized Service Partners" after having received adequate training instructions provided by VBM Medical. This contractual framework underscores the comprehensive nature of the partnership between VBM Medical and its distributors.

3.2.2 Regulatory Implications

The production and distribution of medical devices is subject to strict national and international regulations designed to prioritize patient safety and mitigate risks associated with the device's intended use. To facilitate the exportation of medical devices to foreign countries, manufacturers must comply with the local regulations by registering their products at the respective health authorities.

In the European Union, the distribution of medical devices is streamlined through the CE-label registration, enabling products to be distributed across all member states. However, outside the EU, a lack of harmonization in international standard agreements requires individual registration of medical devices in each country.

Navigating these diverse and often complex regulatory landscapes presents challenges for manufacturers, particularly in regions like Asia and North America, where the registration process can be intricate and prolonged, lasting up to one year. VBM Medical strategically incorporates local distributors into their internationalization strategy to assist them in adhering to diverse regulatory standards, obtaining necessary certifications, and ensuring compliance with evolving regulations. The distributors' commitment to compliance is formalized through the Quality Agreement. This agreement constitutes the distributors' responsibility for registering VBM devices in their markets and staying informed about regulatory changes.

3.3 Multichannel Communication Strategy

VBM Medical's communication with international distributors primarily occurs through email, serving as the main channel for conveying crucial information such as new product launches, discontinued items, price adjustments, and invitations to product trainings or conventions. While sales calls by dedicated sales executives have been traditionally conducted over the phone, the transition to face-to-face interactions via Microsoft Teams has become the norm for addressing more complex situations.

To bolster product promotion and enhance brand awareness, VBM places significant emphasis on participating in international and local conventions and trade shows. In the year 2023, VBM actively participated in 53 exhibitions and conventions worldwide, with a notable presence in Germany (27), the United States (20), and six other countries. These events serve as crucial

platforms for networking, showcasing products, and engaging with industry stakeholders. Various engagement activities, such as distributing flyers, brochures, and catalogues, complement these endeavors.

Recognizing the evolving landscape and the need for more efficient sales networks, VBM is actively exploring new forms of engagement to strengthen relationships with clients. The main challenge identified is how to incentivize distributors to focus more on selling VBM products.

To address this issue, VBM has initiated a strategic shift toward adopting digital sales tools. This research focuses on three distinct digital sales & communication strategies, each representing a different stage of adoption by VBM:

- Fully Adopted: Integration of LinkedIn and social media as crucial communication methods.
- Partly Adopted: Utilization of remote communication tools by inside sales agents, currently in the exploration phase.
- Not Adopted: Investigation into the effects of a webshop for online purchases for distributors.

By exploring these strategies, VBM seeks to enhance its digital communication capabilities and optimize its sales network for improved efficiency and stronger client relationships.

LinkedIn

LinkedIn is an essential component of VBM's marketing strategy and has been strategically integrated to capitalize on the platform's professional networking capabilities and wide reach among healthcare professionals. The primary purpose of using LinkedIn is to create awareness of new product launches, establish connections with KOL's and end customers, and inform sales representatives of distributors globally. In addition, LinkedIn can serve as a tool for supporting internationally dispersed distributors in finding new leads and expanding their customer base.

VBM has implemented professional product launch campaigns on LinkedIn, targeting a well-defined audience within the medical device industry. These campaigns are designed to highlight the innovative features and benefits of their products, ensuring they capture the attention of potential buyers and influencers in the field.

The goal of this research is to investigate the effect of VBM's LinkedIn strategy on international distributors. Specifically, it aims to understand their perceptions of the strategy and to what

extent it is effective in promoting VBM products and driving distributor sales in the online space. By analyzing these factors, VBM seeks to refine its approach and enhance the impact of its marketing efforts on LinkedIn.

Inside Sales Agents

VBM intends to enhance and improve interactions with international distributors by increasing the use of digital communication channels, such as online video conferencing. To achieve this, VBM has hired additional support in the sales department, expanding resources to better assist distributors remotely. Distributors often have various brands and products in their portfolio. For VBM, this implies the need to create incentives to shift their focus to selling VBM products. The new strategy aims to provide these incentives and improve the overall engagement and support. Besides, VBM aims to improve communication with B- and C-level distributors, which usually receive less attention.

The research goal is to explore the ways in which remote communication tools contribute to improved distributor engagement, satisfaction, and product knowledge. It seeks to understand distributors' perceptions of remote assistance, identifying the value of digital interactions and the instances where they prefer in-person support.

Webshop

Some medical device companies have started to launch online purchasing platforms (webshops) where healthcare providers can order medical devices online. These platforms sometimes bypass distributors, to sell directly to end customers. However, due to regulatory differences across countries, webshops are usually used to sell to certified and registered local distributors. The idea of this approach is to make regular purchasing transactions more efficient for distributors and to create a more standardized internal process for the manufacturer that requires less effort. However, establishing a webshop in the highly regulated healthcare industry is very complex. Only registered customers would be allowed to purchase online, and the webshop site would be closed to the general public to comply with regulations.

The research goal is to understand how a webshop would influence the cost-efficiency and convenience of orders for distributors. It also aims to investigate whether distributors have encountered webshops from other manufacturers and their experiences with them. Therefore, this investigation is aimed at exploring the distributors' perspective of potential benefits and challenges of webshops, not however analyze the regulatory implications for VBM or conduct a cost-benefit analysis.

4 Research Methodology

This chapter details the research methodology used for the empirical study, covering the research method, design, execution, and data analysis.

A qualitative exploratory research approach was applied to gather primary data in addition to the secondary data collection elaborated in the literature review. The aim of the research is to investigate the sales process activities of international distributors and examine how manufacturers impact sales performance through digital sales channels. To achieve this goal, in-depth interviews with representatives of international distributors were considered adequate. This form of qualitative exploratory research facilitates extended discussions with a smaller sample size, allowing for a detailed exploration of the topic (Cooper & Schindler, 2014).

The interviews sought to uncover insights into the different perceptions and expectations of distributors concerning sales support and communication from manufacturers. Engaging directly with these representatives enabled the collection of unique knowledge and perspectives of distributors about the sales processes in their respective markets. From a scientific standpoint, distributors are considered experts due to their understanding and firsthand experience within their markets. This expert knowledge makes them valuable sources of information for this study (Bogner et al., 2014).

The purpose of this methodological approach is to offer valuable insights and responses to the research questions: How is the sales process of distributors structured and what are relevant activities performed? Which support activities by the manufacturers are essential at each step of the sales process? What are the effects of digital sales channels on the performance of distributor sales process activities?

4.1 Interview Design

In-depth interviews were conducted with ten distributors across four continents. Recognizing the significant variations in sales activities across different markets and healthcare systems, it was necessary to gather insights from distributors operating in different environments. Participant countries varied in market size, population demographics, and economic conditions, ensuring the sample's representativeness of VBM's global distributor network. This approach facilitates the formulation of assumptions about the sales process activities of VBM's international distributors (Cooper & Schindler, 2014).

A semi-structured interview method was employed, featuring a balance between predetermined questions and the flexibility for open dialogue. This method allowed for the standardization necessary to compare responses while also providing the opportunity to discover new insights and perspectives. In this context, an interview guideline was developed and segmented into four distinct categories, each containing a set of questions related to the research context and objectives. This structure ensured that relevant research topics were covered while maintaining the flexibility to explore insights unique to each interview (Bogner et al., 2014).

Table 2 offers an overview of the interview guideline, detailing the categories and their respective research purposes. The actual questions posed during the interviews are documented in Appendix C.

Table 2 Interview Guideline

	<i>Category</i>	<i>Research Purpose</i>
1	Distributor Organization	<ul style="list-style-type: none"> • What are individual distributor characteristics: <ul style="list-style-type: none"> ○ How many employees / sales representatives and how are they organized across the country? ○ How many different products & brands does an individual sales representative sell?
2	Pre-Selling Activities	<ul style="list-style-type: none"> • What are pre-selling activities for distributors? <ul style="list-style-type: none"> ○ How, where and who? • What is biggest challenge in finding new leads?
	Selling Activities	<ul style="list-style-type: none"> • How are customers approached and products presented? • How much value do distributors assign to providing sales representatives with product trainings? • What are common objections?
	Post-Selling Activities	<ul style="list-style-type: none"> • Is there any ongoing customer engagement besides customer service and follow-ups? • What are end-customers' expectations toward manufacturers?
3	Manufacturer Evaluation Criteria	<ul style="list-style-type: none"> • How do distributors evaluate manufacturers? • Which attributes are important for the performance of sales activities? • What are typical shortcomings of manufactures & VBM?
4	Digital Sales Channels	<ul style="list-style-type: none"> • What are general opinions on the use of digital sales channels in interactions with manufacturers and customers? <p><u>LinkedIn:</u></p> <ul style="list-style-type: none"> • Is LinkedIn popular in different markets? • Can manufacturer LinkedIn activities impact distributor sales?

Remote Interactions:

- What are opinions on remote interactions with manufacturers?
- Which activities can remote interactions substitute, and which activities should be done in-person?

Webshop:

- How important are operational transactions with manufacturers for the sales performance?
- Would a Webshop provide any benefits for distributors?

4.2 Execution and Data Analysis

Interview participants were identified and contacted via email with the assistance of VBM's sales department. The basic selection criteria for distributor representatives included their proficiency in English, the relevance to geographical markets of interest, and necessary experience and expertise in operating for their respective distributors.

Participants were approached with a brief overview of the research subject, without including the interview guideline to elicit spontaneous and honest responses during the interviews. The researcher's objective was to secure at least ten participants, representing 10% of the total countries where VBM operates. Thirteen potential participants were contacted, but three had to cancel, and time constraints prevented the scheduling of additional interviews. Nevertheless, after conducting ten interviews, the researcher observed a saturation point, with recurring answers and no new insights emerging.

Appendix D provides a comprehensive list of all interview participants, including their company, country, and their position within the organization. The interviews were led individually by the researcher and were conducted at the end of March and early April 2024. To ensure flexibility and convenience for both sides, all interviews were conducted virtually via Microsoft Teams. This approach allowed for face-to-face interaction while minimizing time and cost constraints. Each interview was tape-recorded and transcribed to facilitate the subsequent data analysis.

The analysis and evaluation of the in-depth interviews were conducted using the qualitative content analysis. This method involves qualitative coding to identify different segments of the interviews and allocate relevant parts to each segment (Mayring, 2015).

For this research, the segments were based on the categories outlined in the interview guideline. Additionally, relevant categorizations elaborated in the literature review were used to further dissect each category into distinct parts.

Using the transcriptions, key findings from individual interviews were allocated to the designated categories and summarized in the empirical findings section. For the interpretation and discussion of the research results, the categories were further coded and arranged according to the three research questions. This approach was used to integrate the empirical findings with the scientific literature review, enabling the identification of new knowledge and the development of a conceptual framework for VBM.

5 Empirical Findings & Data Analysis

The results of the primary data collected during the interviews are described and summarized below. The topics discussed are organized according to the interview guideline into four categories: distributor organization & market, distributor sales process, manufacturer evaluation criteria and digital sales channels.

Distributor Organization & Market

At the beginning of the interviews, respondents were inquired to present their organizational structure and provide information on their respective market characteristics and healthcare systems. Appendix E provides an overview of the different organizational structures of selected distributors.

The majority of distributors represented in this research can be classified as small organizations with six sales representatives or fewer. The two exceptions noted are the distributors for Italy and Colombia, operating in relatively larger markets. Each interviewee acts as the designated point of contact for the respective distributor in dealing with manufacturers. The remaining sales representatives generally have limited contact with manufacturers, receiving relevant information and training through the designated point of contact.

The product portfolios of distributors are extensive, covering various brands and types of medical devices, ranging from large and more sophisticated equipment to consumables with lower differentiation. Regardless, respondents asserted that they focus on core brands that generate the most revenues. The organizational structure and divided responsibilities of the

salesforce varies among distributors. The three different types of specializations mentioned are according to geography, product category, or customer type, each depending on the size of the product portfolio, country and distributor. The most frequent salesforce structure of distributors is organized into geographical specialization, with sales representatives covering the entire product range in their designated regions. For instance, the distributor for Italy assigns commission-based sales representatives for each of the 20 states in the country. In contrast, the distributor for the Netherlands divides responsibilities based on product category, where sales representatives are responsible for devices belonging to similar medical specialties. Similarly, the Swedish distributor further divides responsibilities into specific brands, with the respondent being the only responsible for VBM sales in the entire county. Conversely, in Lebanon the distributor wants to reduce complexity for its customers by only providing them with one sales representative, i.e. organizing the salesforce into types of customers.

During the interviews, it became evident that the selling process for distributors is heavily influenced by the country's healthcare procurement system. Respondents emphasized the difference between selling to public hospitals through tender processes and selling to private hospitals with direct procurement systems. In Northern European countries, namely Scandinavia and the UK, the hospitals are primarily public and the procurement system is dominated by tenders. Accordingly, distributors highlight the importance of securing the business if a tender is published, considering their time horizons of four to seven years.

Norway presents a valuable example of public procurement and the influence on the distributor sales strategy. The country established specific "Hospital Acquisition groups" responsible for procurement for all hospitals of certain regions. Tenders are published every four years for specific product categories, which includes a range of different types of medical devices. Distributors need to be alerted to tender publications and ensure their medical devices are registered in the designated procurement list. Otherwise, non-registered medical devices and suppliers cannot be selected. This example further demonstrates the resulting price competition in public hospitals and tender processes. Even though approximately 95% of hospitals in Norway are publicly managed, the Norwegian distributor generates 80% of revenues from public hospitals and only 60% from tenders.

Besides the evenly distributed evaluation of quality and price, the environmental aspects of the used material and packaging for the medical devices are also important considerations across

all Scandinavian countries. Additionally, the consideration of price versus quality varied between public and private hospitals, impacting the overall sales strategy of distributors.

Distributor Sales Process

This section outlines the respondents' experiences and insights into activities they perform along the sales process. Although revealing different approaches to identifying new opportunities and selling strategies, distributors shared the perspective that the overall sales process in the medical device industry is characterized by building personal relationships and trust with customers.

Pre-Selling Activities

The findings on activities related to pre-selling are based on nurturing long-term relationships with hospitals. As these relationships are ongoing, distributors point out the importance for maintaining continuous conversations with customers to identify new opportunities.

Performed sales activities for generating leads that were mentioned include attending national conferences or trade shows, visiting customers at hospitals and clinics, and establishing contact through phone calls and emails. Marketing efforts predominantly involve traditional methods such as distributing flyers and brochures at conferences. Notably, the distributor for the Netherlands was among the few to prioritize online presence through websites and search engine advertising. Others reverted to LinkedIn posts tailored to their local markets and language.

A necessary distinction became apparent between distributors in small and large markets. In smaller markets such as Ireland, Lebanon, or the Netherlands, distributors already have active accounts with all hospitals, implying the need to identify new business opportunities within existing customers. Moreover, the size of distributor organizations affects the ability to perform lead generation activities. The larger distributor in Colombia reports having dedicated marketing and communications teams developing national campaigns for the brands they represent.

In smaller organizations, sales representatives play the main role in identifying customer needs and new opportunities. Their tasks involve understanding the intricacies of each hospital, identifying decision-makers, and proposing tailored solutions. Besides, sales representative's

proactive engagement with different departments provides insights into upcoming tenders. The following quote of the Irish distributor provides a valuable representation of sales activities:

“So we’re established a long time and the one thing that constantly changes in the hospitals is people, and so you’re constantly trying to keep up to date with them. Even though we are established, it’s “out of sight, out of mind”. So it’s very important for us to be involved and to understand the process there and the change in personnel, {...} also when you’re working in that environment to understand that the people down below, even though they might not be the decision makers right now, could become the decision makers tomorrow.” Conor Doolan, Murray Surgical

Shared challenges and ways to improve lead generation efforts among distributors include increasing online marketing presence to create more awareness. As highlighted by the distributor in Lebanon, the timely communication with manufacturers regarding product information and updates needs improvement to increase the distributor’s ability to find leads.

Selling Activities

Across all distributors, the selling and persuasion phase emerged as the main activity of sales representatives, as most procurement decisions at hospitals are influenced by relationships and trust with suppliers. Thus, sales representatives are tasked with understanding who relevant decision-makers are, how to approach them, what individual customer interests are, and possessing comprehensive product knowledge to demonstrate the unique selling points (USPs) of each brand.

Respondents reported varying perceptions and insights on who the primary decision-makers are in their respective market. Main decision-makers mentioned are in the finance and purchasing department, physicians, nurses and hospital management. Besides, hospitals in different countries assign specific roles that influence the decision. For example, Australian hospitals are built around “clinical educators” who are responsible for training the hospital staff on medical devices in each specialty. Accordingly, distributor sales representatives need to preform pre-sales trainings with clinical educators before being able to enter the procurement process and the negotiation phase. With different influencers to the purchasing decision, the Irish distributor pointed out the necessary skill of sales representatives to engage each decision-maker at the correct time of the selling phase to mitigate potential issues.

The approach to presenting medical devices typically involves in-person visits to hospitals, providing demonstrations or trials, in particular for high-quality products. In Italy, the

distributor started to organize and host workshops at hospitals to show the USPs of new products directly to users, i.e. physicians and nurses. Conversely, the strategy of the Colombian distributor is to highlight the cost-benefits of the medical devices to build a long-term business partnership with cost-savings for the customer.

For this reason, the identification and understanding of unique customer needs is important for sales representatives during the persuasion phase. In most cases, the factors “price versus quality” of medical devices dominate the decision-making at hospitals. Other valuable criteria mentioned are the distributor’s reliability of delivery and the mere presence of available stock.

According to all respondents, the ability of sales representatives to successfully convey the USPs of all their portfolio brands depends on the quality and quantity of product trainings they receive. When asked about how distributors manage their salesforce training, an important distinction became apparent between larger and smaller distributor organizations. Large distributors often have dedicated product managers or specialists who receive product trainings from manufacturers and pass on the knowledge to the sales representatives. Examples are distributors in Denmark and Colombia who established training academies where product specialists train sales representatives on the different brands and products. This disconnectedness between sales representatives and manufacturers is less observed at smaller distributor organizations. Having fewer number of sales representatives provides the possibility to include them at company visits or meetings at international conferences, where they can directly interact with the manufacturers of the products they sell.

The size of the distributor organization creates further challenges as it pertains to product trainings. Both the distributors in Italy and Colombia referred to existing language barriers between local sales representatives and the manufacturer, leading the distributor to prefer internalizing product trainings.

Challenges for sales representatives during the selling phase are related to finding the right decision-makers and getting the time to make the sales presentation. Furthermore, navigating long and bureaucratic tender processes puts pressure on distributors and requires constant coordination with the manufacturer.

Post-Selling Activities

Distributors had similar reactions when questioned about activities they perform after successful sales. As medical device sales are based on ongoing business relationships with customers, respondents at times blurred the lines between the three phases of the sales process.

Their sales strategy is based on showing presence and being a reliable partner to customers in their markets. Consequently, post-selling activities could become or significantly influence pre-selling activities. This appears to be particularly the case for smaller markets with a limited number of potential customers, where building trust and reliability of delivery and customer service is key to enable potential future sales.

To that effect, the majority of respondents reported not having a structured post-selling system, as their entire sales strategy is built on relationship management. In this regard, main post-selling activities performed are customer service – provided they are a certified partner – trainings, maintenance and installation, clinical support and follow-ups on product use and updates.

A critical finding during the research is the consideration of vastly differing types of medical devices the distributors have in their product portfolios. The level of complexity and cost related to a medical device affects the amount of post-selling activities required. Consider the Norwegian distributor, who primarily sells low-cost consumables that are often single-use products with low patient risk. In this case, clinical support or product trainings are not necessary. Other distributors have more premium-quality medical devices in their portfolio with a higher level of sophistication. As a result, the Dutch and Colombian distributor indicated a more active approach to post-selling, including frequent visits to hospitals, education programs with medical staff and assistance in procurement planning and forecasts.

The sales channels of distributors for post-selling are very traditional, including in person visits to hospitals, emails, and phone calls. Internally, distributors have to manage the communication between customer service staff responsible for order processing and inquiries and the sales representatives. Externally, there might appear the necessity to include and connect the manufacturer to the end customer for more specific product matters.

Manufacturer Evaluation Criteria

After exploring their sales process activities, distributors were prompted to share their expectations toward their suppliers, i.e. the manufacturers of the medical devices they distribute.

The evaluation of manufacturer performance and support varies among distributors. While some apply a formal internal evaluation system subject to regular monitoring, others rely on informal evaluations based on perceptions and the overall quality of the business relationship. In particular, it was the smaller distributors that tended to prioritize trust and long-term cooperation with their manufacturers.

The Dutch distributor stands out as the only mention of a structured evaluation system within their organization. Their system includes seven criteria, with particular emphasis on the quality of marketing support materials (both physical and digital), the establishment of long-term trust and reliability in the manufacturer, and openness to collaboration on projects. Notably, the Colombian distributor has different expectations regarding its manufacturers. The respondent explains their balancing of support versus price expectations in the following:

“A company like us, we are fine not to get this support like the marketing material and so on. But then when we don't get things like that, we expect better prices because I have to do a lot of investment on my side. And that's when I change the supplier. If I don't get support, I have to invest a lot of time and money on developing the whole market, and my cost is high and not competitive.” Diana Castillo, LM Instruments

Overall, the key manufacturer evaluation criteria mentioned were related to timely product delivery, quality and quantity of marketing support, and transparency in communication. Besides, product training and brand quality and performance are fundamental aspects considered prerequisites for collaboration.

Table 3 Results of Manufacturer Evaluation Criteria

<i>Criteria</i>	<i>Expectations</i>
Product & Brand Performance	Distributors expect to receive consistent and reliable product quality from manufacturers. One respondent mentioned an instance where unsatisfactory product quality negatively affected their credibility as a distributor. In addition, multiple respondents revealed how continuous new product

launches provides them with advantages in the sales process, enabling them to engage with customers and schedule visits for product demonstrations. In Scandinavian countries, there is a notable emphasis on integrating sustainable features into products and packaging materials. Flexibility and openness to product suggestions from distributors are also key expectations from manufacturers. Moreover, the publication of scientific papers and studies about their products significantly increases the global image of the manufacturer's brand.

**Product
Training**

"The best sales come from suppliers that provide the best training" Paul Rea, Bosco Medical

With this quote the Australian distributor provided a suitable summary of distributor expectations toward product trainings from manufacturers. Typically, in-person training sessions are conducted 1-2 times per year, either at the manufacturer's facilities, the distributor's location, or at international conferences. Distributors expect manufacturers to prioritize availability for in-person training sessions, supplemented by digital features such as application videos and timely updates on product developments. Notably, the Colombian distributor lamented a general lack of adequate product training, emphasizing the necessity for manufacturers to provide guidance on sales strategies regarding the individual USPs. This includes offering background information on product anatomy and benefits, as well as its clinical application to understand which medical specialties and hospital departments to approach.

Communication

Respondents appeared to value the quality of communication with manufacturers, evaluating it based on quickness and competency of the responding contact person. The terms "transparency" and "honesty" were frequently used to describe communication expectations, particularly about being upfront with delivery issues, product developments and pricing details. Distributors appreciated manufacturer's openness to suggestions and feel valued when included in discussions concerning market decisions.

**Promotional
Support**

Apart from the Colombian distributor, all respondents expect to receive updated and high-quality marketing material. Promotional support from the manufacturer is essential during the sales process. Thus, marketing material such as brochures, flyers or PowerPoint presentations should include

comprehensive information on the brand, products, USP and impact on the environment. Even attention to detail is expected regarding layouts and fonts. Furthermore, manufacturer support at national conferences is appreciated and leads from international conferences are expected to be forwarded immediately.

**Operational
Transactions**

Even though operational transactions such as ordering, delivery and payment are expected to run seamlessly, distributors highlighted their effect on the relationship quality with manufacturers. Timely product delivery stands out as a key concern for distributors. With some distributors committing to fast deliveries of up to 24 hours, their sales performance is directly impacted by the manufacturer's ability to meet this expectation. Moreover, manufacturers are expected to provide transparent and up-to-date information on pricing and assist distributors with product registrations.

Digital Sales Channels

The interviews concluded with respondents' experiences and perceptions on the value and effectiveness of digital sales channels within their sales operations. Consistent with earlier findings, the distributor-customer interaction in medical device sales remains heavily reliant on traditional sales channels, specifically the establishment of trust through personal contact, phone calls, and email communication. Conversely, there is an observable increase in the use of remote digital channels in the distributor-manufacturer communication.

Despite common agreement among interviewees on the importance of in-person contact for managing business relationships with manufacturers, digital communication channels, such as video calling, are acknowledged for their benefits. Digital channels facilitate more frequent interactions, which is beneficial for geographically distant distributors, such as those in Australia. Additionally, they enhance relationship management by providing a more personal interaction through face-to-face video calls, thereby complementing in-person interactions and training situations.

Nevertheless, two scenarios were mentioned where in-person interactions are indispensable: establishing relationships with new manufacturers and conducting strategic discussions.

The respondents were also asked about their opinions on the impact of LinkedIn during the sales process. Overall, distributors are observing an increase in the popularity of LinkedIn, particularly when manufacturers use it to create awareness on a global scale. In this context, multiple distributors emphasized the importance of manufacturers maintaining a social media presence, but with a focus on sharing relevant content. This includes providing extensive information on products and brands and promoting relationships with distributors. One point of critique came from the Danish distributor, who noted that many manufacturers only post about their presence at international conferences, which is not particularly useful for lead generation. Despite this, almost all respondents acknowledged that the LinkedIn activity of manufacturers can impact their market. However, to effectively generate leads, it is important for manufacturers to create posts that distributors can repost in their own market and in their local language.

Furthermore, relevant findings were revealed about digital ordering systems in the healthcare industry, such as webshops. All the interviewed distributors currently refer to simple channels to order from manufacturers through email. The internal ordering process typically follows a standardized system, involving specified documents to be filled out and sent to the manufacturer. Consequently, distributors prefer uncomplicated ordering systems from their various different manufacturers. If a manufacturer were to introduce a webshop, most distributors expressed concern that adapting to different systems would take time and complicate the process.

Besides, given the strict regulations on webshops in the healthcare industry, respondents believe that local applications make more sense. For example, the Dutch distributor attempted to introduce an e-commerce platform to enable hospitals to order online. However, this strategy faced resistance as hospitals struggled to integrate the platform with their ERP systems. Other examples include Denmark and Italy, where online pharmacies are used to distribute medical products in specific regions. However, these platforms are generally intended for private use and simple products, rather than complex medical equipment.

6 Discussion

The research results are analyzed and interpreted in the following chapter. Research questions are addressed by combining the findings from the literature in chapter 2 and the empirical findings from chapter 5. Thereby, evidence is provided to give valid answers to the research questions and conceptualize a practical model for VBM.

6.1 Framework for Analyzing Distributor Sales Process Activities

The quality of the relationship between manufacturers and international distributors is determined by the value and effectiveness of delivered support activities by the manufacturer throughout the distributor sales process (Trivedi et al., 2023). Hence, the initial focus is on analyzing and understanding the activities performed by distributors during each phase of the sales process.

The research findings indicate a consistent structure in the three step-by-step sales process phases used by distributors in their respective markets. Coherent with scientific literature, the sales activities performed vary based on different factors and circumstances and are increasingly centered on value selling and relationship-building with profitable customers (Moncrief & Marshall, 2005).

To this effect, three distinct factors were identified as primary influencers to the sales process activities of international distributors: market size, distributor organization size, and the structure of the healthcare system. These three factors of influence and their impact on sales process activities is summarized in the Distributor Sales Process Matrix (hereinafter: DSPM).

Table 4 Distributor Sales Process Matrix (DSPM)

<i>Factors of Influence</i>		<i>Pre-Selling</i>	<i>Selling</i>	<i>Post-Selling</i>
Market Size	Large	<ul style="list-style-type: none"> - Lead generation campaigns - National marketing campaigns - Social Media 	<ul style="list-style-type: none"> - Product demonstrations across larger area & number of customers 	<ul style="list-style-type: none"> - More customer inquiries, installations to process etc. - Customer feedback collection
	Small	<ul style="list-style-type: none"> - Relationship building - Local conferences - Targeted marketing - Word-of-mouth 	<ul style="list-style-type: none"> - Limited number of potential customers - Identifying hospital decision-makers - Solutions to unique customer needs 	<ul style="list-style-type: none"> - Continuous relationship building - Sales circle: post-sales becomes pre-sales

Distributor Size	>10	<ul style="list-style-type: none"> - More resources for lead generation - Dedicated marketing teams, CRM systems - Marketing strategies 	<ul style="list-style-type: none"> - Dedicated sales teams for demonstrations, trainings, negotiation - Different levels of product knowledge - More staff to perform in-person visits 	<ul style="list-style-type: none"> - Customer service, installation, education programs performed separately - Sales reps sole focus on relationship building & follow-ups
	<10	<ul style="list-style-type: none"> - Sales reps as lead generators - Direct contact with customers through emails, phone calls, and existing networks 	<ul style="list-style-type: none"> - More individual responsibilities - Closer contact of sales reps with manufacturers 	<ul style="list-style-type: none"> - Personalized support by single contact person - Consistent communication - Higher customer knowledge of individual sales reps
Healthcare System	Public	<ul style="list-style-type: none"> - Limited opportunities for lead generation - Awareness & preparation of tender proposals 	<ul style="list-style-type: none"> - Long tender selection process - More price competition - Complex to influence decision-making 	<ul style="list-style-type: none"> - Meeting compliance requirements - Ensuring product availability - Standardized recurring deliveries
	Private	<ul style="list-style-type: none"> - Direct engagement with customers - Smaller and more recurring orders - Stronger relationships 	<ul style="list-style-type: none"> - Direct negotiations with private hospitals - Opportunities for cross-and upselling - Higher margins 	<ul style="list-style-type: none"> - Focus on customer satisfaction - Quality of post-sales more valued: quick response time, reliable delivery

Market size pertains to the population and geographical area of the country in which the distributor operates. The distinction between "large" and "small" markets is not defined by specific limits but rather by general characteristics of the country. Large markets typically have a substantial population and a more extensive land area, with numerous hospitals and clinics spread across dispersed regions. Smaller markets tend to be more centralized, with either a small geographical area that facilitates easy access to various customers (consider the Netherlands) or a smaller population with fewer hospitals (consider Sweden).

Similarly, the size of the distributor organization is rather based on context and interpretation. Yet still, a threshold of approximately 10 employees (including sales representatives, customer service, etc.) is determined, where distributors with a lower number can be considered small, with limited resources for performing activities along the sales process phases.

The healthcare system factor distinguishes between public and private hospitals. This comparison focuses on the extent to which the procurement process in different countries is dominated by tenders, which significantly influences the sales process activities of distributors. To have a notable effect, at least two-thirds of the hospitals in a country should be part of the public system.

The purpose of this matrix is to provide a tool for VBM to analyze and make assumptions about the sales process activities of specific distributors. The following provides an example of how to apply the DSPM in practice:

The three factors of influence should always be considered in combination to derive the sales activities of a distributor for each phase. Therefore, in analyzing the *pre-selling activities* of a small distributor operating in a small market with mostly privately run hospitals, the following assumptions can be derived:

Small markets tend to become saturated more quickly, suggesting that the distributor is likely to have active accounts with most hospitals. Consequently, identifying new business opportunities relies heavily on maintaining ongoing relationships and implementing targeted marketing efforts. Given the smaller size of the organization, lead generation activities are probably performed by the sales representatives, who maintain direct contact with long-term partners through in-person visits, emails, or phone calls. The prevalence of private hospitals implies that sales representatives can engage directly with customers and foster stronger relationships, creating more frequent opportunities for recurring sales.

Consider a different example to infer the *selling activities* of a large distributor operating in a large market dominated by public tender procurement processes.

The selling and persuasion phase for medical device sales is based on establishing relationships and trust with individual customers. In countries with a large population and land area, there are usually numerous potential customers. Maintaining consistency in personal visits for product demonstrations, presentations and negotiations is therefore more complex and requires sufficient sales staff. If the distributor is accordingly large, its salesforce is presumably structured into different sales teams and responsibilities. Product trainings are likely to be performed internally by dedicated product specialists, which can create a larger distance between sales representatives and the manufacturer. As most procurement processes are conducted through public tenders, the selling activities of the distributor are more constrained, with longer sales cycles subject to higher price competition.

For the final phase, the *post-selling activities* of a small distributor operating in a large market dominated by public tender procurement processes are analyzed.

Large markets entail more active accounts for the distributor, resulting in a higher number of customer inquiries, complaints, requests for training or installations and other post-selling

activities. In this example, if the distributor has a low number of sales representatives, a certain lack of customer proximity and relationship management can be assumed. Although smaller distributors can usually provide more personalized support services, with sales representatives being involved in every phase of the sales process, the size of the market and customers can be overwhelming and lead to a prioritization of sales process phases. In the context of public procurement processes, post-selling activities are likely to focus primarily on meeting compliance requirements and ensuring timely deliveries of tenders.

It is important to recognize that the DSPM is intended only to make inferences about the sales activities and does not depict the actual sales process of each distributor. However, it does offer manufacturers a conceptual framework to understand the potential sales process of a particular distributor, thereby providing strategic insights into the necessary support activities.

6.2 Manufacturer Support Activities along the Sales Process

The following chapter will explore the specific support activities required by the distributor during each phase of the sales process. This understanding is vital for manufacturers seeking to customize their support mechanisms to enhance distributor performance and satisfaction, thus improving the relationship quality.

Support activities are categorized into "relationship dimensions", as these not only include tangible support activities, but also the general performance attributes of manufacturers that impact distributor performance. In scientific literature, these dimensions are identified as product & brand performance, product training, communication, promotional support, and operational transactions (see Chapter 2.1.2). During the research, all five elements were identified and evaluated by respondents, providing a valuable insight into the distributors' expectations.

In this context, manufacturers are evaluated according to five underlying quality criteria: reliability, assurance, responsiveness, accessibility, and image quality (Trivedi et al., 2023). The following provides an overview of how distributors evaluate each of the five relationship dimensions based on these quality criteria.

- **Product & Brand Performance** is evaluated based on reliability and image quality. Distributors mentioned the value of consistency in product quality and a positive brand image on their sales performance and credibility.

- **Product Trainings** by the manufacturer are evaluated based on assurance and accessibility. Manufacturers are expected to be available for in-person trainings and provide comprehensive educational material.
- **Communication** and interactions are evaluated based on responsiveness, assurance and accessibility. Distributors need to know which contact person has the necessary expertise to provide fast, adequate and transparent responses.
- **Promotional Support** is evaluated based on image quality. Distributors expect to receive material that conveys a superior brand quality and includes extensive information on the products and manufacturer.
- **Operational Transactions** are evaluated based on reliability, accessibility and responsiveness. Trust in the timely and adequate supply of products is vital for distributors' sales performance. Arising issues are expected to be promptly communicated and handled by reliable contact persons.

In knowing how manufacturers are evaluated by international distributors, it is important to understand how these relationship dimensions can create value for each phase of the distributor sales process. The DSPM provides a framework for VBM to customize their relationship dimensions to align with the specific needs and conditions of each distributor.

Supporting Pre-Selling Performance

Distributors generate leads by attending national conferences, visiting customers at hospitals and clinics, and establishing contact through phone calls and emails. The ability to find new business opportunities is influenced by the product & brand performance of the manufacturer and the promotional support provided.

Reliable product quality from previous sales enhances the distributor's reputation and increases the likelihood of subsequent sales. In addition, new product launches provide distributors an opportunity to visit customers, make new approaches and continue building relationships. In this regard, VBM should consider and be open to distributors' product suggestions to foster innovation and responsiveness.

While the product & brand performance of VBM is a general attribute that applies to all distributors, the promotional support can be adjusted and tailored using the DSPM. Recognizing that smaller distributors tend to have less resources for lead generation, being primarily performed by sales representatives through direct customer contact, VBM can focus on

delivering high-quality marketing material such as brochures, flyers and catalogues with extensive product information to help facilitate awareness creation and make the sales process more efficient. If the distributor is active in Scandinavian countries, VBM can account for the fact that most orders undergo a tender process that includes quality criteria related to sustainable packaging and used material.

Supporting Selling Performance

Distributor sales representatives build personal relationships with customers in the persuasion phase to gain insights into the hospital decision-making system and understand individual customer interests. To effectively demonstrate the USPs of each brand, they require sufficient product knowledge. Hence, their selling performance relies on the quality of product training and communication with the manufacturer.

Transparent, timely and accessible communication fosters trust in the manufacturer and improves the coordination and effectiveness of distributors' selling activities. VBM can leverage the DSPM to improve communication efficiency and increase product knowledge of sales representatives. For instance, educational videos in the local language focusing on the USP of VBM products could be designed for large distributors that have many sales representatives with limited contact to the manufacturer. A further consideration is that sales managers of large distributors might not always forward all relevant information regarding product updates or trainings to their sales representatives. To address this, VBM could establish direct communication channels to sales representatives through social media or newsletters.

Supporting Post-Selling Performance

Distributors focus on maintaining positive relationships with customers by providing reliable delivery, customer service and clinical support. These post-selling activities are impacted by operational transactions and communication with manufacturers.

The consequences of conditions set by manufacturers for ordering, delivery, and pricing are directly transferred from distributors to end customers. Any updates or changes to these conditions should be handled through upfront and transparent communication by the manufacturer. The DSPM allows VBM to analyze which changes in operational transactions impact certain distributors' sales activities more significantly. For instance, smaller distributors in centralized markets typically use a single point of contact for their customers, with sales representatives possessing high levels of customer and product knowledge. In these cases, post-

selling activities, such as follow-ups or workshops, provide an opportunity for pre-selling activities of other products. Thus, timely delivery and potential price concessions by VBM have an immediate effect on the sales representative's ability to nurture ongoing customer relationships.

6.3 Impact of Digital Sales Channels on Manufacturer-Distributor Relationship

Digital sales channels can be a method to increase the effectiveness of the relationship dimensions, thus improving the manufacturer-distributor relationship. In this regard, digital sales channels can serve to substitute, supplement or support already existing manufacturer support activities. Ideally, these improved relationship dimensions can contribute to reducing existing challenges within the distributor sales process regarding speed, knowledge, reach or perceived value (Guenzi & Habel, 2020).

The following analyzes the impact of three types of digital sales channels (see Chapter 2.2) on specific relationship dimensions and their effect on the distributor sales process.

Digital Face-to-Face Channels

Digital channels such as online video calls allow manufacturers and distributors to interact face-to-face without being in the same location (Murphy & Sashi, 2018). VBM uses these channels to increase engagement with distributors worldwide, thus affecting the relationship dimensions of communication and product training. Previously, these interactions occurred through in-person meetings, phone calls or email.

The research indicates key benefits of digital face-to-face channels regarding the increased frequency of interactions, while remaining a personal aspect during conversations. However, respondents underscored the necessity for in-person meetings for strategic discussions and elaborate product trainings. This implies that digital face-to-face channels serve as a support to existing communication methods, requiring VBM to find a balance between both.

As discussed in the previous section, communication and product training are crucial during the selling phase of the distributor sales process. Main challenges identified for large distributors in this phase is reducing knowledge gaps between product specialists and sales representatives as it relates to the manufacturer's products and company. This leads to limited perceived value of the sales representatives when demonstrating the USP of VBM products.

The addition of digital face-to-face channels can enhance the direct communication between manufacturer and sales representatives, improving the information flow and adding a personal touch to product trainings.

Impersonal Digital Channels

Alternatively, digital channels can facilitate impersonal interactions between manufacturers and distributors that do not occur in real time, i.e. text messages, emails or e-commerce platforms (Fraccastoro et al., 2021). For this research, VBM aimed to explore the effects of online ordering platforms (webshops) on the efficiency of ordering transactions for distributors. Currently, orders are placed via email and processed by VBM employees. The webshop would substitute this existing ordering system.

Simplifying operational transactions can significantly enhance the performance of post-selling activities for the distributor. Nevertheless, the research findings suggest little evidence for improvements in efficiency and effectiveness by introducing a webshop for medical device orders. Besides the regulatory complications, respondents noted that adapting to different ordering systems would require more effort and complicate this simple transaction. More importantly, it would not speed up the internal task execution, as evidenced by experiences with local medical webshops introduced in the distributors' markets.

Social Media

Social media is a type of impersonal digital channel used in B2B settings for awareness creation, brand diffusion and relationship building (Fraccastoro et al., 2021). VBM uses LinkedIn to network with distributors and KOLs, and market its brand globally, thus serving as a supplement for existing marketing and sales functions.

Contributing to the relationship dimensions “promotional support” and “product & brand performance”, manufacturers' use of LinkedIn has proven to positively influence pre-selling activities for distributors. Identified challenges within distributor pre-selling activities include low efforts of online awareness creation and delayed updates by the manufacturer on product developments. By using LinkedIn, VBM can effectively reduce the challenge of reaching a wide audience of end-customers and distributors in real time with their brand image and product information. Furthermore, this approach can also broaden the reach for smaller distributors with limited resources for large-scale awareness creation. While the benefits of social media are clear, distributors believe the effectiveness of LinkedIn differs depending on the type of content

shared by manufacturers. Recommendations for VBM were to include more detailed information on products and their USP in their LinkedIn posts to directly address end-users and sales representatives of distributors.

6.4 Recommendations & Practical Guideline

With reference to the conceptual framework provided in the discussion, this chapter provides a concluding overview for VBM on managing relationships with international distributors.

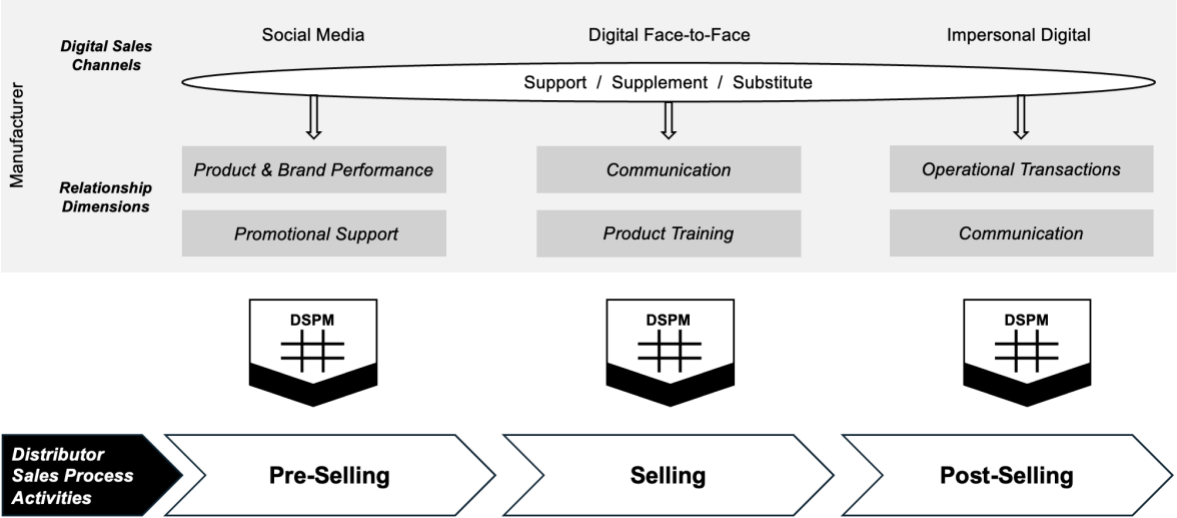
The following provides an outline of the strategic approach to understanding the manufacturer support process model in Figure 2.

In the medical device industry, the manufacturer-distributor relationship centers around the sales performance of distributors. VBM can improve the relationship quality and build trust by effectively supporting to distributor sales process activities.

In doing so, VBM must first understand the distributor sales process, including specific activities performed. Given the variation in sales processes among different distributors, market sizes, and healthcare procurement systems, the Distributor Sales Process Matrix (DSPM) can be applied to customize support activities. VBM is recommended to collect data on each international distributor's market characteristics and organizational structure by sending surveys with simple questions. This information will facilitate the application of the DSPM.

Once the sales process activities of specific distributors are identified, VBM can analyze its performance of the five relationship dimensions across the three sales process phases. Necessary adjustments can be made to meet the unique conditions and expectations of each distributor.

Figure 2 Manufacturer Support Process Model



To effectively integrate a new digital sales channel, VBM needs to determine which relationship dimension it enhances and which activities it either supplements, supports or substitutes. Subsequently, the possible impact of the digital sales channel on distributor activities during a particular sales process phase can be estimated. This procedure provides a strategic approach for VBM to introduce new sales and communication channels, ensuring they positively contribute to relationship quality with international distributors.

With regards to the three distinct digital sales channels, the research findings suggest a positive contribution of LinkedIn and digital face-to-face channels to the performance of the relationship dimensions of VBM. They serve to support and supplement existing sales activities of VBM concerning its marketing performance and communication strategy and would add value to distributors during the pre-selling and selling phases. However, the substitution of manufacturer ordering systems with an online Webshop is not expected to increase efficiency and generate value for the distributor during the post-selling phase.

7 Limitations of the Research

The present research provides valuable insights into the sales process of international distributors and how manufacturers can deliver effective support activities. However, several limitations to the research were identified and possible additions to future research mentioned to increase the applicability of the results.

First, this empirical study should be expanded to increase the sample size of respondents and enhance the representativeness of the results. In this regard, conducting interviews with distributors from all continents and economic regions with a diverse set of organizational structures would add significant value to the research findings.

Moreover, quantitative research in the form of surveys would complement the qualitative findings of the present research to obtain a more complete depiction of the international distributor network of VBM. This survey can focus on the three factors of influence derived from the Distributor Sales Process Matrix for a better quantitative analysis. For manufacturers such as VBM, additional information on how distributors evaluate their suppliers based on the five relationship dimensions could be important for developing better communication channels and support strategies.

Notably, another limitation of the present research is the mere investigation of the impact of three distinct digital sales channels on the manufacturer-distributor relationship. However, the paper did not consider including a cost-analysis of the implementation and feasibility of digital sales channels for VBM. Further analysis regarding the financial implications of adopting new sales channels would provide a better understanding of the cost/benefit ratio for VBM.

The consideration of these limitations in future research would serve VBM to continue to nurture strong relationships with international distributors and drive future sales. Besides, similar research approaches can be applied to other medical device manufacturers to develop an industry-wide conceptual model.

8 Conclusion

Indirect export strategies of small and medium-sized enterprises are driven by the quality of long-term relationships with international distributors. Companies in the medical device industry, such as VBM, are faced with complex regulatory environments that vary across countries, intensifying their reliance on local distributors' expertise and market insights. Managing this extensive network of international distributors and ensuring their products receive sufficient attention is challenging VBM to develop a successful global sales strategy. To this effect, VBM is contemplating the adoption of digital sales channels to strengthen relationships with international distributors and deliver effective support activities.

This research paper aims to investigate the impact of digital sales channels on the relationship between VBM and its international distributors. The objective is to gain insights into the distributor sales process across different markets and explore how manufacturers can effectively support sales activities at various stages. To this end, the effects of three digital sales channels are examined and recommendations provided. The research questions were addressed through in-depth interviews with representatives from international distributors of VBM.

The research findings confirmed the complex landscape of cross-country sales processes in the medical device industry. Notably, the selling process for distributors is determined by the country's healthcare procurement system, which varies between public hospital tenders and private hospitals with direct procurement systems. Besides, distributors reported selling multiple products and brands, and having different sales structures and salesforce responsibilities depending on the size of the organization, country, and product portfolio.

The research also revealed important findings on the distributor sales process, being characterized by personal relationships and trust with customers. The identification of new business opportunities is often a result of continuous conversations and established relationships with hospitals. Similarly, medical device selling activities are driven by sales representatives and their personal interactions with relevant decision-makers. The importance of manufacturer support throughout the distributor sales process became evident. Several manufacturer evaluation criteria were elaborated, with particular emphasis on the overall long-term trust and partnership.

Importantly, the findings indicated that digital communication channels are regarded as a positive addition, facilitating more frequent interactions and providing a more personal interaction than traditional remote communication channels.

The research findings suggest that distributor sales process activities are influenced by three key factors: market size, distributor organization size, and the structure of the healthcare system. Considering these factors of influence helps VBM to analyze individual distributor sales activities and develop customized support to increase sales performance. Five dimensions of manufacturer support activities were identified, alongside respective performance expectations of distributors. These manufacturer support activities can be supplemented, supported, or substituted by digital sales channels, thereby increasing their efficiency or effectiveness and improving the sales performance of international distributors.

To conclude, a model is recommended to adopt a strategic approach for VBM in introducing new sales and communication channels, ensuring their positive contribution to the relationship quality with distributors.

Further research and data collection are recommended to develop a comprehensive picture of each international distributor's market characteristics and organizational structure, facilitating more effective customized support.

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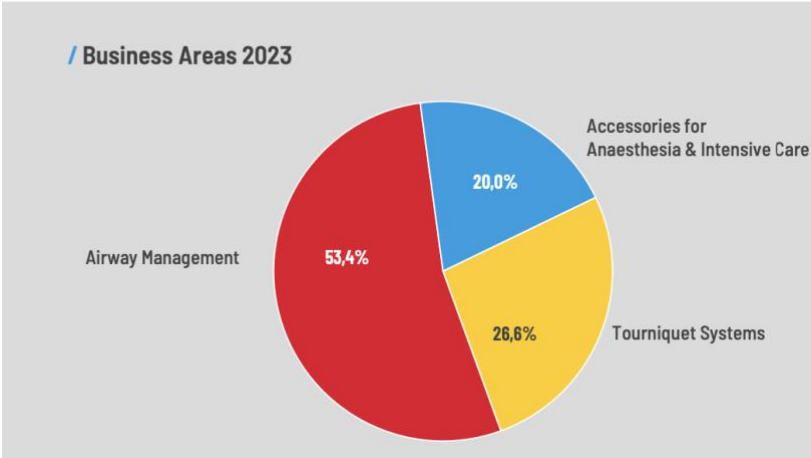
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Appendix A: VBM Business Areas & Product Range

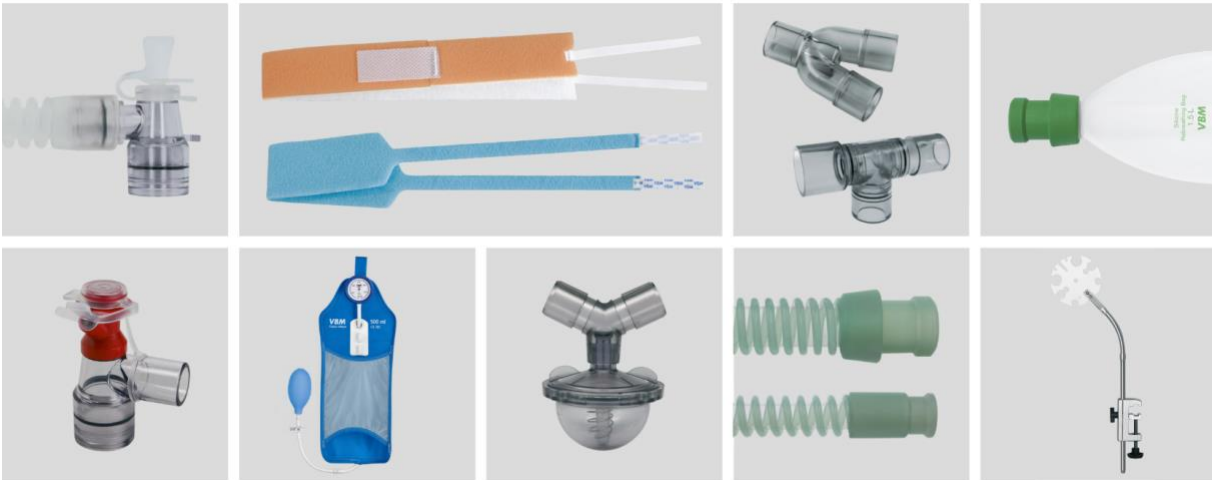
VBM



/ Airway Management



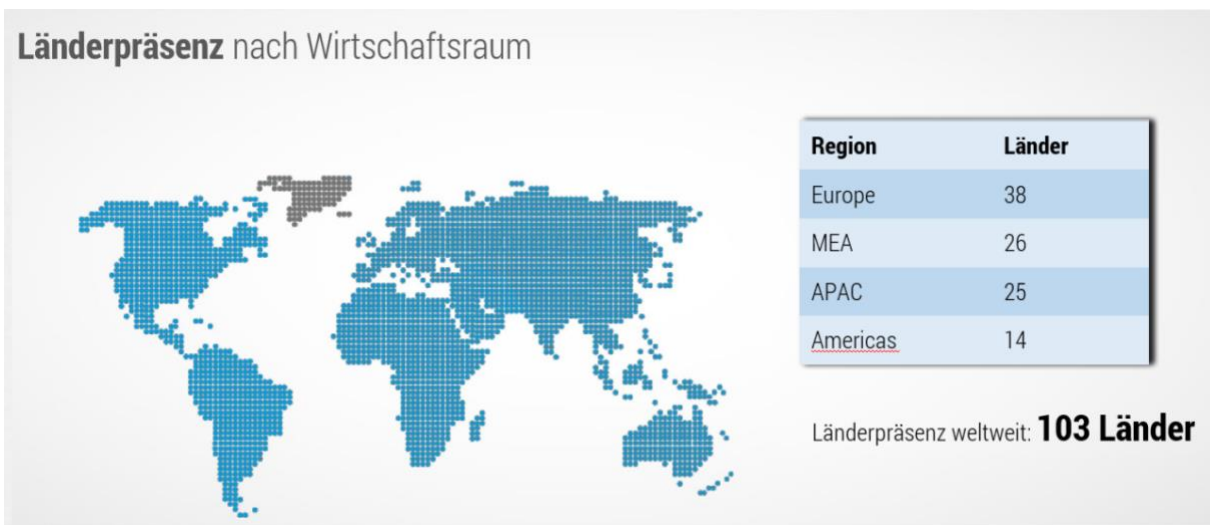
/ Accessories for Anaesthesia & Intensive Care



/ Tourniquet Systems



Appendix B: Country Presence by Economic Area



Appendix C: Interview Guideline

	<i>Category</i>	<i>Posed Questions</i>
1	Distributor Organization	<ul style="list-style-type: none"> • How many sales representatives do you have? • What are their responsibilities and how are they organized across the country?
2	Pre-Selling Activities	<ul style="list-style-type: none"> • How do you identify new leads / potential new customers? <ul style="list-style-type: none"> ○ Who does the prospecting/qualifying? ○ Where and how? • What is biggest challenge you encounter?
	Selling Activities	<ul style="list-style-type: none"> • What is the strategy of your sales representatives to convince customers to buy your products? • How do you as company make sure your salesforce is best prepared to approach customers and have product knowledge? • What are common objections & how do you usually try to overcome them?
	Post-Selling Activities	<ul style="list-style-type: none"> • What activities are performed to maintain ongoing communication and engagement with clients after the sale? • Who performs customer service & how (in person, remote)?
3	Manufacturer Evaluation Criteria	<ul style="list-style-type: none"> • What expectations you have regarding manufacturer support? • What attributes of manufacturer positively impact your ability to perform sales process activities? • Have encountered any challenges or shortcomings regarding support from VBM during sales process?
4	Digital Sales Channels	<ul style="list-style-type: none"> • In what ways do you think digital sales channels have influenced/improved the performance of your sales activity or internal sales processes? <p><u>LinkedIn:</u></p> <ul style="list-style-type: none"> • What advantages do you think can VBM's LinkedIn activity provide you for sales? • In what ways do you think VBM's LinkedIn activity affects your ability to sell? <p><u>Remote Interactions:</u></p> <ul style="list-style-type: none"> • What is your view on remote interactions with manufacturers, for what do you think is it valuable? • In your opinion, which activities can remote interactions substitute, and which activities should be done in-person? <p><u>Webshop:</u></p> <ul style="list-style-type: none"> • Does the simplicity and convenience of operational interactions influence your satisfaction with a manufacturer? • Have you encountered Webshops in your industry/market? • You think ordering through a Webshop from supplier would save you time and costs?

Appendix D: List of Interviewees

Country	Interviewee	Company	Function	Date
Denmark	Dorthe Andresen	Mediplast	Country Manager	26/03/2024
Sweden	Jon Starborg	Hettich Healthcare	Sales Representative	26/03/2024
Netherlands	Niels van Amerongen	Endomed	Sales Manager	28/03/2024
United Kingdom	Richard Towler	Freelance Surgical	Sales Representative	28/03/2024
Italy	Max Perego	MeHos	Country Manager	02/04/2024
Australia	Paul Rea	Bosco Medical	Sales Manager	03/04/2024
Colombia	Diana Castillo	LM Instruments	Marketing & Sales Manager	04/04/2024
Ireland	Conor Doolan	Murray Surgical	Sales Manager & Representative	04/04/2024
Lebanon	Hovik Kurkjian	Medicap	Sales Manager & Representative	05/04/2024
Norway	Lars Stensvehagen	Modul Nordic	Sales Representative	09/04/2024

Appendix E: Distributor Organization & Market

Country	Organization Size	Salesforce Structure	Product Portfolio	Healthcare System
Denmark	<ul style="list-style-type: none"> 6 sales reps 1 tender manager 1 marketing assistant 2 customer service agents 	Geography: <ul style="list-style-type: none"> ➤ Denmark split into East and West 	70 brands	75% of sales from tenders
Sweden	<ul style="list-style-type: none"> 3 sales reps 1 accountant 3 technicians 	Brand Category: <ul style="list-style-type: none"> ➤ Set of brands for each sales rep 	10 brands	Large share of market tenders

Netherlands	<ul style="list-style-type: none"> • 6 sales reps 	<p>Product Category:</p> <ul style="list-style-type: none"> ➤ According to medical specialty 	15 brands	n/a
United Kingdom	<ul style="list-style-type: none"> • bought by veterinary company • only 1 sales rep for human medical devices • sub-distributors for Scotland 	<p>Brand Category:</p> <ul style="list-style-type: none"> ➤ Only sells VBM products 	1 brand	NHS System based on tenders
Italy	<ul style="list-style-type: none"> • 3 marketing & sales managers • 20-22 sales agents • 10 more sales agents dedicated to home care 	<p>Geography:</p> <ul style="list-style-type: none"> ➤ Italy divided according to regions 	8 brands	40% public hospitals
Australia	<ul style="list-style-type: none"> • 3 sales representatives • sub-distributors in remote areas of country • 2 in customer service 	<p>Geography:</p> <ul style="list-style-type: none"> ➤ One sales rep for each of 3 major states in east Australia 	18 brands	65% of procurement tenders
Colombia	<ul style="list-style-type: none"> • 45 sales representatives • Marketing team: product specialists & service engineers 	<p>Geography & Product Category:</p> <ul style="list-style-type: none"> ➤ Country divided into 5 regions ➤ 3 sales teams responsible for 5/6 product segments 	18 brands	More private hospitals
Ireland	<ul style="list-style-type: none"> • 3 sales reps 	<p>Geography:</p> <ul style="list-style-type: none"> ➤ Ireland split into 3 regions 	30 brands	65% public hospitals
Lebanon	<ul style="list-style-type: none"> • 6 sales reps 	<p>Customer Type:</p> <ul style="list-style-type: none"> ➤ Each sales rep has set of hospitals 	10 brands	15% public hospitals
Norway	<ul style="list-style-type: none"> • 2 sales reps • 1 product specialist • 3 for administration, warehouse and purchasing 	<p>Customer Type:</p> <ul style="list-style-type: none"> ➤ Sales reps sell to purchasing departments & wholesalers ➤ Product specialist visits active accounts selling high-margin products 	10 brands	95% public hospitals

Appendix F: Interview Transcripts

The transcripts of the research interviews are available in the attached appendix.

An overview of the separate appendix as referenced in this paper is shown in the following table of contents.

<i>Transcripts</i>	<i>Interview Partners</i>	<i>Date</i>
Interview 1	Dorthe Andresen	26/03/2024
Interview 2	Jon Starborg	26/03/2024
Interview 3	Niels van Amerongen	28/03/2024
Interview 4	Richard Towler	28/03/2024
Interview 5	Max Perego	02/04/2024
Interview 6	Paul Rea	03/04/2024
Interview 7	Diana Castillo	04/04/2024
Interview 8	Conor Doolan	04/04/2024
Interview 9	Hovik Kurkjian	05/04/2024
Interview 10	Lars Stensvehagen	09/04/2024

Statutory Declaration

I hereby certify this thesis is my own work and contains no material that has been submitted previously, in whole or in part, in respect of any other academic award or any other degree. To the best of my knowledge all used sources, information and quotations are referenced as such.

Milan, 13.06.2024

Date



Signature (Diego Haegele)