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## Innovation adoption and commercialization via reference marketing in communities of practice: Insights from the B2B healthcare sector

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**Abstract:** The paper addresses the use and perceptions of reference marketing for innovation management, particularly in a community of practice (CoP). The study explores how small and medium-sized enterprises (SMEs) can use reference marketing and how the messages are perceived by customers in the healthcare sector, a sector characterized by high risk, multiprofessional communities, and complex decision structures. Based on eleven semi-structured interviews among surgeons who form a CoP, the study develops new understanding of reference marketing from a customer perspective for innovation commercialization in CoPs. The study results are useful for sellers who offer innovations to professional communities but who have yet to achieve a larger acceptance and adoption of their product. This paper contributes to innovation management literature and B2B marketing by introducing a reference marketing tool for SMEs to bridge innovation adoption within CoPs.

**Keywords:** reference marketing; innovation commercialization; innovation adoption; communities of practice; diffusion of innovation; business-to-business; healthcare sector.

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### 1 Introduction

In a business environment defined by increasing product and choice complexity, the use of customer references has become common practice within business-to-business (B2B)

marketing (Jaakkola and Aarikka-Stenroos 2019; Jalkala and Salminen 2010; Terho and Jalkala 2017; Salminen and Möller 2006). Large technology companies, such as IBM, Oracle and Dell offer customer reference programs as a fixed part of their marketing strategy to showcase previously successful cases and to convince new customers of their complex solutions<sup>1</sup>. It has been argued that SMEs acting in traditional and conservative industries can make particularly good use of references as a marketing tool (Jalkala and Salminen 2010) due to their relatively low costs and broad reach. In the commercialization of new innovations, reference marketing can be efficient especially when entering a new market or introducing a new product to an existing customer (Salminen and Möller 2006). The concept of reference marketing<sup>2</sup> has been defined as "a set of practices that enables sellers to provide evidence to prospective buyers to evaluate their performance potential on the basis of previous customer relationships" (Jaakkola and Aarikka-Stenroos, 2019: 27). This concept has been studied in an active yet dispersed body of literature, with different concepts and research schools working in parallel.

For the use of reference marketing for innovation commercialization in a B2B context, an active discussion stems from the Industrial Marketing and Purchasing (IMP) Group. For instance, in their nominal work, Salminen and Möller (2006) identify references as being in a key role when introducing a new revolutionary innovation to a market or when aiming to accelerate the adoption of an innovation in a present market. In a more recent study, Jaakkola and Aarikka-Stenroos (2019) examine the effects of reference marketing and its positive consequence on customer engagement behavior towards a seller by presenting a model on how customer references create value in a network, including the full triad of the seller, reference customer, and potential customer. Other studies, such as Morgado (2021) and Terho and Jalkala (2017) take a similar approach, confirming the importance of customer references in B2B marketing. Gomez-Arias and Montermoso (2007) study the concept of references from the perspective of choosing the right reference customer for impact on the commercial success of an innovation. Similar to the points brought by Gomez-Arias and Montermoso (2007), Ruokolainen (2005) claims that reference customers can bring important insights about a seller's innovation after launch, which go beyond the technical aspects of the product. Besides IMP studies on reference marketing, studies on opinion leaders also make a contribution to the understanding of the topic in a B2B setting, although applying a different approach. These studies relate to the theory of the two-step flow of communication and opinion leaders based on the traditional work of Katz and Lazarsfeld from 1955 (Katz and Lazarsfeld 2006). In conjunction to innovation diffusion, opinion leaders have been largely studied in literature (Rogers 2003), mostly related to consumer marketing, with only a few exceptions in B2B marketing literature (Makkonen and Johnston 2014; Kulkov et al. 2021). Additionally, there are also other concepts explaining practices related to reference marketing in B2B marketing and commercialization activities, in direct or more indirect wording. A North American stream of literature can be linked to the well-cited work of Godes (2012), who studies the benefits for sellers to establish a reference program to influence innovation adoption from the early adopter phases to the later adopter groups.

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<sup>1</sup> See <https://www.ibm.com/ibm/clientreference/us/en/>;  
<https://www.oracle.com/performance-management/customers/>; <https://www.dell.com/en-us/dt/case-studies-customer-stories/index.htm#sort=relevancy> (Retrieved April 6, 2022)

<sup>2</sup> Also synonymous with customer reference marketing, customer references, customer referencing, etc.

As presented, there are several prevalent studies on reference marketing from the perspective of B2B marketing and innovation commercialization, although the concepts are dispersed. Reference marketing has been studied within disciplines such as marketing, sales, organizational purchasing and communication, but an in-depth understanding of how reference marketing can be used in the innovation commercialization stage to influence communities of practice (both online and offline) is yet lacking. This reveals a number of gaps in relation to both reference marketing and innovation literature. Firstly, a majority of prevailing studies have concentrated on industry contexts related to process industries or high technology suppliers where it can be claimed that the community aspect is not of high importance. It thus raises the question of whether the results from previous studies are applicable to industries where the decision structures and innovation adoption processes are dependent on a professional community. Secondly, based on previous literature, there is an apparent focus on the use of customer references in the R&D and launch phases of an innovation, and thus the further commercialization stages to the later adopter groups are missing.

This study takes a community level perspective on reference marketing in innovation commercialization. Thus, the research question presents itself in; *1) how do community of practice actors perceive reference marketing by an innovator firm and 2) how can reference marketing therefore serve as a commercialization tool for SMEs, in a B2B context, for influencing innovation adoption within communities of practice?* In order to answer this question, the paper relies on a qualitative study and eleven interviews with respondents who represent a community of practice through their profession as surgeons. The findings show that the community of practice (CoP, Lave and Wenger 1991) constitutes a specific context for reference marketing to achieve innovation adoption. An a priori theoretical model is presented to display and synthesize the relevant knowledge from the literature streams. Additionally, a reference marketing tool is displayed to suggest how reference marketing can be practiced in a socially accepted way within a CoP to achieve innovation adoption. This study, therefore, synthesizes a broad review of reference marketing literature and innovation adoption theory in the context of a CoP. This brings new insights to innovation theory and business marketing.

The remainder of the paper is structured as follows. First, the literature review on reference marketing in innovation commercialization is presented, followed by an overview of prevalent innovation adoption theory and community of practice literature. Second, the preliminary framework that demonstrates innovation adoption with reference marketing in the context of a community of practice is created. Third, the methodology is discussed, followed by the results section based on the empirical data. Fourth, in the discussion section, a practical tool for reference marketing is presented in the managerial implications. Finally, limitations and future research suggestions are discussed.

## **2 Literature review**

### *Reference marketing in innovation marketing and commercialization*

Reference marketing has been described as a concept that explains a set of practices that can be used as a commercialization tool by B2B SMEs to achieve innovation adoption

(Godes 2012). As such, reference marketing is not to be understood as a theory alone, but from this perspective, it complements innovation adoption theory with a new practical tool. In this paper, reference marketing is defined as *activities in B2B marketing where a seller engages with existing customers, directly or indirectly, to influence the adoption of an innovation by potential customers*. This definition presupposes that all three parties in the reference marketing triad are present: seller, reference customer, and potential customer.

A literature review reveals a few major streams of literature that attend to the topic of reference marketing in a B2B context. Firstly, a European stream of studies roots back to an IMP perspective in the article by Salminen and Möller (2006) where they present a framework for the use of reference marketing externally and internally in the organization. From the perspective of innovation management and commercialization, they mention the importance of e.g. reference site visits when launching an innovation into a new market when technological risk prevails and new learning is necessary (Salminen and Möller 2006). Also, when introducing a new innovation to existing customers, referencing to earlier successfully completed projects may be useful. The study by Salminen and Möller (2006) also provides a vocabulary, which is still in frequent use in studies such as those conducted by Morgado (2021), Jaakkola and Aarikka-Stenroos (2019), Terho and Jalkala (2017) and Ruokolainen and Aarikka-Stenroos (2016). For instance, Morgado (2021) showcases the effect of reference marketing programs and how the interactions between supplier and customers can be leveraged in organizational purchasing. Terho and Jalkala (2017) present a conceptualization of customer reference marketing in a B2B context and offer suggestions for the effect of reference marketing on the firm's selling performance. In regards to the literature on reference marketing in a B2B digital environment, Tóth et al. (2021) and Kilian et al. (2013) report studies on the impact of customer references on sellers' websites. In addition to the IMP approach, another stream of literature are studies on opinion leaders (Katz and Lazarsfeld 2006) and their use in the commercialization and marketing of innovations in a B2B setting. For instance, Kulkov et al. (2021) and Makkonen and Johnston (2014) use the concept of opinion leaders to explain the process of sellers aiming to disseminate information about an innovation through selected opinion leaders to reach potential customers in a B2B context. Additionally, a less extensive stream of literature can be traced to North American studies on reference marketing, where larger variations of the concept appear. For example, Lacey and Morgan (2008), bring forth the concept of customer advocacy from a B2B perspective. This resonates with the principles of reference marketing when customers share customer-specific information, engage in firm-sponsored marketing research activities, and deliberately share word-of-mouth referrals. From a North American perspective, Godes (2012) and Hada et al. (2014) study marketing communication and the nature of referrals in B2B context.

Overall, the previous studies have confirmed the empirical importance of reference marketing in innovation commercialization, but the concepts still vary across studies and several literature streams seem to act in silos. Research in the context of B2B marketing is also strikingly scant in comparison to the practical appearance of reference marketing in daily B2B practices. Jalkala (2009) addresses this issue and suggests that reference marketing seems to be too concrete to raise research interest and is rather mentioned in the passing in academic text. She also proposes that practitioners are seemingly 'too closely acquainted' with the concept to question its nature (Jalkala, 2009:15), which also hampers a larger interest for the topic. However, from the perspective of innovation commercialization, reference marketing remains a concept of high research potential,

especially in the understanding of how influence is achieved in closed customer communities such as in a community of practice. Therefore, this article sets out to provide new insights in innovation and marketing research, focusing on how SMEs acting in a B2B context can influence the adoption of their product using reference marketing as a commercialization tool.

### *User innovation adoption supported by company commercialization*

Innovation adoption is to be understood as an individual process consisting of a series of stages that each adopter (customer) undergoes from first hearing about an innovation to adopting it (Rogers 2003). This perspective is included in diffusion of innovation theory introduced by Rogers in 1965 (Rogers 2003), which looks at how an innovation spreads in a group. The theory states five main elements that influence the spread of an innovation: the innovation itself, adopters, communication channels, time, and a social system. The current literature review focuses on studies involving the adopters, communication channels and the social system dimensions, which are considered the most relevant in relation to the setting of this study.

*Adopters:* Rogers (2003) presents a classification system of different adopter categories that constitute “members of a social system on the basis of innovativeness” (Rogers, 2003:22). The categories are depicted in a normal distribution curve consisting of innovators, early adopters, early majority, late majority and laggards. The adopters are most often studied as individuals but can also be understood as units of individuals such as communities, organizations or countries (Meyer 2004). According to Rogers’ adopter categories, the early adopters are of particular interest in the innovation adoption process, since they largely represent the opinion leaders who influence the adoption decision of later adopters (Dedehayir et al. 2017). The role of opinion leaders is thus considered being of high importance in innovation adoption literature, since the opinion leaders are seen as influencers in relation to the later adopters with their dynamic relationships both outside and inside the customer community (Rogers 2003). In fact, much research has thus far concentrated on the early adopter categories (innovators and early adopters), a point criticized by Geoffrey Moore already in 1991 when he first promoted the idea of ‘crossing the chasm’. The work looks at ways to bridge the gap between the visionary early adopters and the pragmatic early majority by using different parts of the marketing mix when aiming to maximize the commercial success of an innovation (Moore 2014). Thus far, according to the current literature review, the learnings have been seemingly little regarded by innovation adoption literature, especially in a B2B marketing context.

*Social system:* Innovation adoption has been much studied from the perspective of individuals (Dedehayir et al. 2017). This is an aspect of innovation theory which has also received criticism for the sake of being too one-sided by drawing most of its conclusions over innovation adoption based on the adoption decisions of individuals (Kroes et al. 2010). According to Kroes et al. (2010) this is especially true from the perspective of adoption of healthcare innovations, which is a field characterized by a multifaceted social system affecting the adoption of innovation among individuals in the organization. Thus, a widened view on innovation adoption in different social contexts is needed.

*Communication channels:* Much research on innovation adoption has thus far concentrated on the spread of information through media and the dissemination through individual opinion leaders (see Dedehayir et al. 2017). This relates to Katz and Lazarsfeld's original idea from 1955. The theory has even entered a new era in innovation research and other disciplines as well, with the current interest for social media influencers. The opinion leader view is especially popular in business-to-consumer (B2C) studies (De Veirman et al. 2019). From a B2B perspective it can be argued that the role of individual opinion leaders in the communication of an innovation should be questioned because of the complex decision structures compared to B2C (Kroes et al. 2010). Also, in reference marketing literature, the focus has long remained on the role of individuals in the commercialization of an innovation, which speaks in favor for more research on a community level, such as in a community of practice (CoP).

#### *Community of practice as a setting for innovation adoption and commercialization*

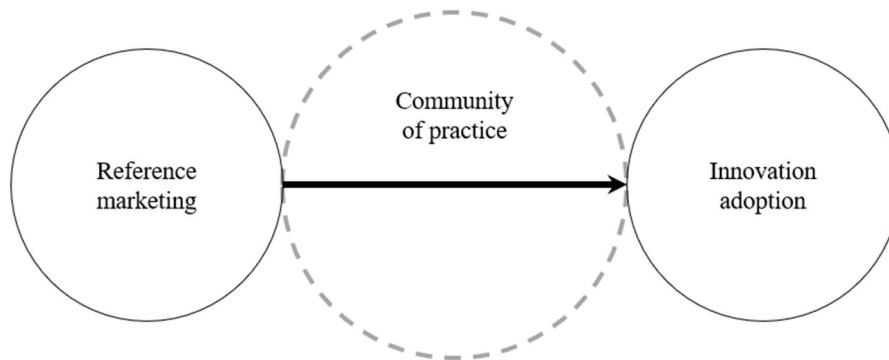
Community of practice (CoP), as a concept, was first introduced in 1991 by social anthropologist Jean Lave and educational theorist Étienne Wenger. They studied how novices learnt from the established communities, the process termed situated learning (Lave and Wenger 1991). Situated learning has been defined as collective sensemaking and a way to understand learning as a social event rather than a unidirectional teaching procedure. Through peripheral participation, entrants become integrated through an apprenticeship, which is supported by the community of practice. The apprentices move from a peripheral position into a gradually more centralized one, legitimated by other more senior members of the community (Lave and Wenger 1991). Thus, in addition to the tangible reward of acquiring and perfecting new skills, there is an intangible social reward of gaining a more centralized position in the social system maintained by the CoP. Emotional commitment to a common cause is also a central idea in a CoP. Thus, an important aspect of CoP theory is that the social group who constitute the CoP learn from each other while practicing the common cause.

CoP as a concept describes the social context embedding customers of high technology and knowledge-intense industries, such as for instance in healthcare, information technology or education. From a community perspective, there is a growing body of research combining innovation adoption and CoP (Menchik 2020). Menchik (2020) argues that there is a deep tradition in sociology to study healthcare professionals' adoption of technology, especially with today's increasingly advanced and complex technological environment. However, from a business perspective, the discussion still remains rather scarce on the role of CoPs in innovation adoption. In B2C literature there are studies on the role of consumer communities somewhat resembling the principles of CoPs, with their group norms and homogenous behavior towards a company brand (Hienerth et al. 2014). For a B2B setting, Kroes et al. (2010) suggest that CoP can bring further understanding to marketing research, especially when studying the prerequisites for marketing in the healthcare sector. According to Kroes et al. (2010), the field of pharmaceutical marketing research has long been overconsumed with the role of key opinion leaders (KOL) in innovation adoption studies. They go as far as to argue that the KOL concept is misfit for a CoP context, considering that the original theory on opinion leaders presented by Katz and Lazarsfeld in 1955 focuses on voting behavior in the presidential election, a perspective focusing on individual level of communication (Kroes et al. 2010). In terms of the implications for sellers, Kroes et al. (2010) leave an undetailed agenda for further

research on tools for how sellers should commercially target CoPs to achieve innovation adoption. This remains an area with further research potential.

### *Synthesis*

Finally, we synthesize the extant knowledge from reference marketing and innovation commercialization, innovation adoption and community of practice, to provide an a priori framework for our empirical study. The a priori framework explains how reference marketing can be theoretically developed to study innovation adoption in a CoP setting (Figure 1). The aim of the theoretical implication is to develop innovation adoption as a theory with insights from reference marketing as a commercialization tool. Previous reference marketing literature takes the innovator company's perspective and highlights goals for the use of reference marketing in communication and in different channels, endorsing reference marketing as an efficient commercialization tool to stimulate innovation adoption (Salminen and Möller 2006; Godes 2012; Jaakkola and Aarikka-Stenroos 2019). However, to address the theoretical gaps that emerged from the literature review and to answer the research question of this study, a community perspective is needed. Thus, a CoP layer is included in the a priori model, providing the adopters' and customers' perspective, who are interlinked within the CoP. The CoP layer accounts for the particular conditions set by the CoP when practicing reference marketing with the aim to influence innovation adoption. The model directs the empirical study, which will be discussed in the following section.



**Figure 1:** A priori model demonstrating the literatures that the paper combines and contributes to.

## **3 Methodology**

### *Research design and process*

This study uses a qualitative design: an exploratory approach because of the novelty of the problem/phenomenon. Abductive reasoning (Sætre and Van de Ven 2021) was also applied. The task of abduction is to make preliminary observations, which are partly



incomplete, and then further specify these observations and develop theory with a pragmatist perspective (Golden-Biddle 2020). Qualitative data was collected for this study to confirm the preliminary observations from the gap and anomaly identified in the synthesis of reference marketing, innovation adoption and CoP literature (see a priori model in Figure 1). To illustrate the empirical observations, a practical tool was developed, and implications made for further research.

### *Context of the study*

To study reference marketing and innovation adoption in the context of a CoP, a healthcare context was chosen. The respondents were senior surgeons from European hospitals located in Finland, Germany, the Netherlands, and Israel. The respondents were invited because they were all identified as active members of an international surgeon community by their frequent participation in congresses, courses, and scientific studies. The respondents practice at different hospitals in Europe, both private and public, where it is acknowledged that many divergent factors influence the procurement decisions for medical products used in surgery. It is also acknowledged that a complex structure of national reimbursement regulations, public hospital tenders, insurance company policies, hospital trials, etc., affect the purchase and thus the adoption of innovations in the healthcare sector. This paper focuses on the later adoption stages of an innovation, where the adoption of already reimbursed products is of interest. This argues for the decision to treat all the respondents as members of a common CoP and thus treats findings on a general level regardless of prevailing procurement system of the respondents. It may also be argued that the respondents are not customers in this regard, but rather users. However, to harmonize with the terminology used in previous reference marketing and innovation literature, the term customer will be applied here referring to the CoP members.

### *Data gathering*

A total of eleven interviews, by the length of 30-60 minutes, were conducted with respondents matching the profile of potential customers who use high technology products in a CoP context. The questions in the interviews were open-ended, which allowed free discussion on how the customers perceived that they are influenced to use new products in their work. The interviews were semi-structured by nature to explore gaps in existing innovation adoption theory in conjunction with reference marketing. The interviews were conducted over Microsoft Teams in 2020, after the outbreak of the COVID-19 pandemic, which allowed the otherwise occupied professionals to participate in the study.

### *Data analysis*

The interviews were transcribed, and transcriptions analyzed with thematic coding (Braun and Clarke 2006) using NVivo to highlight relevant activities related to reference marketing (see Table 1). The data analysis used the literature review and the a priori model as a basis to structure the themes according to: (1) factors influencing innovation adoption, not involving the seller (non-related to reference marketing); (2) reference marketing activities (according to the concept definition); and (3) CoP characteristics in general (based on definition by Lave and Wenger, 1991). The latter coding option was added to code factors related to the characteristics of the CoP in order to nurture an understanding of how the respondents perceived themselves as members of a CoP. This was done to

understand how the CoP context indirectly affects how the respondents relate to sellers, other potential customers, and reference customers in the presence of a reference marketing activity.

## 4 Results

In this section, the main themes related to reference marketing and innovation adoption are reported to answer the research question of how community of practice actors perceive reference marketing by an innovator firm, and how reference marketing can serve as a commercial tool in a B2B SME context, for influencing innovation adoption within communities of practice.

The findings suggest that the respondents put little emphasis on certain key individuals as references in their choice of new technologies. When asked about the main sources of influence on their decision to use a new product, the respondents referred to their colleagues. When asked to specify if there were any specific individuals they turned to, the unanimous response from all respondents was that no specific colleague had influenced their decision to use a certain technology and they were unable (or unwilling) to point out certain key individuals. Instead, the professional community, both local, national, and international, was mentioned as a driving factor when choosing to adopt a new technology. The most influential peer group was in most cases mentioned as being the specialists on a national level (see Table 1).

Another main finding relates to the presence of the seller, which was perceived by the respondents as an alien factor to the community in almost any situation described. The seller was rather seen as being the facilitator of meetings and courses by sponsoring the event or introducing the customers to other users. Especially the introduction to high-profile peers was described as highly appreciated in this regard, and described as one of the main motivations for participating as a reference customer or taking part in a reference marketing activity. However, in situations where sellers had taken an active role in, e.g., a presentation at a peer-meeting, the activity was described as 'awkward'.

Additionally, the digital aspect of reference marketing was also touched upon, bearing in mind that the study was carried out during the pandemic and all onsite meetings were cancelled. From a social media point of view, the respondents referred to little or no use of social media platforms. Some mentioned only occasionally using LinkedIn as a 'necessary evil' to promote a scientific event or similar, mainly serving to attract sponsors from the industry. For presence in social media channels, an example emerged by one of the respondents mentioning a peer in a ridiculous sense as 'trying to be famous'.

**Table 1** Reference marketing as perceived by actors in a community of practice context

<i>Category</i>	<i>Perception</i>	<i>Channels, means and messages among the CoP</i>	<i>Example/citation from data</i>
<b>Factors with impact on adoption (not involving seller)</b>	Positive	Talking with colleagues at a conference coffee break	"You cannot go to a congress and say "I have tried this new product, I have treated three cases." It's not of value. But when you discuss with a surgeon and say I think it's very interesting for me, but I have just made few cases. I think that I can trust that so I can try that product"
	Negative	Surgeon who 'tries to be famous' through social media activity	"I follow this surgeon who is now posting some information about corona. And he used this way to communicate. But that's not any celebrity. This guy is the head of the [hospital chain], maybe he wants to be a celebrity."
	Neutral	Scientific paper reporting in vitro (laboratory) studies or reporting very few patient cases	"I don't pay much attention [to studies]. A lot just passes me by without me noticing, especially basic studies on animals or something, unless someone recommends it."
		Little to no social media account in use	"I'm not on Facebook, I'm just on Twitter and Instagram. And those I use mainly because of my kids, to follow what they are up to."
<b>Reference marketing activity</b>	Positive	Seller facilitating a scientific meeting	"One company was sponsoring a biannual meeting, which did not include any company presentation. That was nice, because you did not have to think what was displayed, you could show images of other companies as well and there was no awkward situation for anyone."
		Seller facilitating a webinar	"Sure I am interested [in company webinars]. Also those short ones where surgeons present how to perform [a named surgical technique]. Those are not clear to everyone what it even means."
	Negative	Company talk at conference	"Of course you listen with a certain filter if it's a sponsored presentation. [...] You should not naively trust everything that is said and of course you can find out from someone else if they have used the product and what their experiences are"
	Neutral	Surgical video on the seller's website	"Instructional videos are OK. I have for example a colleague who has ordered an animation through a company"
<b>Community of practice characteristics</b>	Positive (in-community aspects)	National peer-community	"If my own colleagues, or colleagues from another hospital in [the same country], says 'hey I tried this, it healed well and no complications, and there are these studies', then that's really credible information"
	Negative (out-community aspects)	Colleague who is tightly related to a company	"If a study is sponsored by a company, it lessens the credibility and same goes with an expert [surgeon] who is sponsored by a company: it eats the credibility of the expert"
	Neutral	Customer specialized professionally according to who was mentoring	"The central hospital trainer started talking that you would be a good [specialty] surgeon and then without thinking about it further I changed my educational direction"

## 5 Discussion and conclusions

### *Theoretical implications*

This study fulfils the objective of examining how community of practice actors perceive reference marketing by an innovator firm and how reference marketing can serve as a tool in a B2B SME context, for commercializing innovation and stimulating innovation adoption within a CoP. Previous studies provide a good overview of what practices are attached to reference marketing (Jalkala and Salminen 2010), but the current study suggests that these practices need to be applied specifically to match a CoP context, to create positive perceptions among the potential users. Apart from a majority of previous studies who empirically study reference marketing from the perspective of the seller (e.g., Terho and Jalkala 2017; Kilian et al. 2013; Jalkala and Salminen 2010), this study completes theory by providing a customer perspective on reference marketing and an understanding for how the CoP context affects reference marketing. Therefore, this study adds to the previous literature that investigates the relationship between sellers, potential customers and reference customers by either focusing on specific dyads (Morgado, 2021; Terho and Jalkala, 2017) or the entire triad (Jaakkola and Aarikka-Stenroos 2019) of reference marketing practices. From a theoretical perspective, reference marketing, as a construct, is extended with a new dimension as a result of the study, focusing on the community and not only the seller, reference customer, potential customer, or combinations thereof. The a priori model presented in Figure 1 and the tool presented in Table 2 thus lay the foundation for further research on reference marketing.

Relating to innovation adoption literature, the study suggests that in a CoP setting, CoP literature (Lave and Wenger 1991) is more informative as far as innovation adoption is concerned, compared to the more established studies on diffusion of innovation through opinion leaders (Katz and Lazarsfeld 2006; Rogers 2003). Also, studies on the community aspect of innovation commercialization (e.g. Aarikka-Stenroos and Lehtimäki 2014; Hienerth et al. 2014) can bring further insight by synthesizing with reference marketing literature. To further exemplify best practices linked to reference marketing, the practices are detailed in the following section on the managerial implications.

### *Managerial implications*

In addition to contributing theoretically to a field of innovation management and business marketing, this study brings new insights to SMEs who are strong in product development but who seek a breakthrough and adoption of their innovation in a larger user group. Therefore, the study findings can help SMEs acting in a B2B context within a high technology industry characterized by customers who form a strong community of practice (CoP). The tool presented in Table 2 is a refined version of Table 1 for managerial use and of the managerial implications drawn from the a priori model in Figure 1. Table 2 thus constitutes a tool that can be used by SME managers who are selling to B2B customers, in a context characterized by a strong CoP.

The tool communicates the practices that consider the social system connected to innovation adoption within a CoP. To target a CoP, the educational interest and peer-

influence that maintains the community cannot be overlooked. Managers should rather consider putting effort into reference marketing that stimulates community activities, instead of activities performed by individuals. This includes, for instance, organizing or exclusively sponsoring targeted courses where the seller's innovation has a central role. The product itself should not be the topic of the course but the focus should rather be on the context where the innovation makes a contribution, together with other completing products and techniques. The seller must also accept its peripheral role in relation to the CoP and take the position of the facilitator rather than an instructing voice. The reference customer acting as a spokesperson should be carefully selected based on his or her role in the community.

**Table 2** Reference marketing tool for use by sellers who target innovation adoption in a community of practice.

<b>Reference marketing activity</b>	Onsite	Seller facilitates a visit at a reference center (national)
		Seller facilitates a visit at a reference center (international)
		Seller refers to a colleague who uses the product in a sales talk
		Seller facilitates a meeting with much attention on informal peer discussions
		Seller sponsors a peer event (no company presentations)
		Seller facilitates a practical course led by the reference customer(s)
	Online	Seller facilitates a webinar with practical instructions and techniques
		Seller supports reference customer with relevant content and information, which the reference customer posts in their own social media channel to promote a course involving the innovation
		Seller facilitates the production of instructional animations online
		Seller organizes online meeting with peer to share one-to-one advice on the innovation

### *Limitations and future research suggestions*

The main limitation of this study relates to the small number of interviews, which without the exceptional setting of the pandemic would probably have been even fewer because of the busy schedule of surgeons. Although the saturation of data was achieved, the results cannot be generalized due to the choice of qualitative method and focus on only European-based surgeons. Another limitation to the study is the complex nature of the procurement system for medical products, which affects the adoption of new innovations in a direct manner. It is acknowledged that one of the main challenges for SMEs supplying to the healthcare sector is not primarily that surgeons are not willing to use the product, but that the procurement of the product is difficult for various reasons. However, it is suggested that this kind of study would be conducted within another discipline, supposedly beyond marketing or even innovation literature. A vast study, or several studies, within e.g., policy could better inform SMEs on the current procurement landscape in different regions. Additionally, related to the limited format of this paper, the a priori theoretical model is suggested to be developed in future studies.

For future research suggestions, a broadening of the scope of the research is suggested, by conducting more interviews, with different European countries. Also, cross-cultural studies to see if culture influences the findings is suggested. Conducting quantitative research to generalize findings could also be implied by using or testing the reference tool. Further, to broaden the understanding of how reference marketing is currently practiced and what the empirical gap is in relation to theory, sellers could be interviewed to validate the findings of how reference marketing is practiced to influence innovation adoption within CoPs. This would be to find more ground for why respondents expressed that they find some reference marketing activities 'awkward' while current reference marketing literature is still encouraging such practices. Additionally, considering the increasing need for SMEs to conduct even more effective and measurable marketing, reference marketing in a digital setting could be explored. The current study indicated little to no social media activity by the respondents. Why is this and are there exceptions? This could be a relevant topic for future studies. Finally, borderline concepts related to reference marketing, such as reputation and word-of-mouth, would be valuable to explore in a CoP setting.

## References

- Aarikka-Stenroos, L. and Lehtimäki, T. 2014. Commercializing a radical innovation: Probing the way to the market. *Industrial Marketing Management* 43(8), pp. 1372–1384. doi: 10.1016/j.indmarman.2014.08.004.
- Braun, V. and Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2), pp. 77–101. doi: 10.1191/1478088706qp063oa.
- De Veirman, M., Hudders, L. and Nelson, M.R. 2019. What Is Influencer Marketing and How Does It Target Children? A Review and Direction for Future Research. *Frontiers in Psychology* 10, p. 2685. doi: 10.3389/fpsyg.2019.02685.
- Dedehayir, O., Ortt, R.J., Riverola, C. and Miralles, F. 2017. INNOVATORS AND EARLY ADOPTERS IN THE DIFFUSION OF INNOVATIONS: A LITERATURE REVIEW. *International Journal of Innovation Management* 21(08), p. 1740010. doi: 10.1142/S1363919617400102.
- Godes, D. 2012. The Strategic Impact of References in Business Markets. *Marketing Science* 31(2), pp. 257–276. doi: 10.1287/mksc.1110.0695.
- Golden-Biddle, K. 2020. Discovery as an Abductive Mechanism for Reorienting Habits within Organizational Change. *Academy of Management Journal* 63(6), pp. 1951–1975. doi: 10.5465/amj.2017.1411.
- Gomez-Arias, Tomas, J. and Monterroso, J.P. 2007. Initial reference customer selection for high technology products. *Management Decision* 45(6), pp. 982–990. doi: 10.1108/00251740710762035.
- Hada, M., Grewal, R. and Lilien, G.L. 2014. Supplier-Selected Referrals. *Journal of Marketing* 78(2), pp. 34–51. doi: 10.1509/jm.11.0173.
- Hienerth, C., Lettl, C. and Keinz, P. 2014. Synergies among Producer Firms, Lead Users, and User Communities: The Case of the LEGO Producer–User Ecosystem.

*Journal of Product Innovation Management* 31(4), pp. 848–866. doi: 10.1111/jpim.12127.

- Jaakkola, E. and Aarikka-Stenroos, L. 2019. Customer referencing as business actor engagement behavior – Creating value in and beyond triadic settings. *Industrial Marketing Management* 80, pp. 27–42. doi: 10.1016/j.indmarman.2018.06.014.
- Jalkala, A. 2009. *Customer reference marketing in a business-to-business context*. Lappeenranta: Lappeenranta Teknillinen Yliopisto.
- Jalkala, A. and Salminen, R.T. 2010. Practices and functions of customer reference marketing — Leveraging customer references as marketing assets. *Industrial Marketing Management* 39(6), pp. 975–985. doi: 10.1016/j.indmarman.2010.06.017.
- Katz, E. and Lazarsfeld, P.F. 2006. *Personal influence: the part played by people in the flow of mass communications*. 2nd ed. New Brunswick, N.J: Transaction Publishers.
- Kilian, T., Greuling, K. and Hennigs, N. 2013. Communicating Competency in References: A Qualitative Analysis of the Utilization of References in Mechanical Engineering. *Journal of Business-to-Business Marketing* 20(2), pp. 65–79. doi: 10.1080/1051712X.2012.719180.
- Kroes, M., Chmielarz, P., Chandler, L., Bergler, M. and Smith, B. 2010. Beyond KOL management: Communities of practice as a new perspective on pharmaceutical market penetration. *Journal of Medical Marketing*. Available at: <http://journals.sagepub.com/doi/10.1057/jmm.2010.34> [Accessed: 12 April 2022].
- Kulkov, I., Barner-Rasmussen, W., Ivanova-Gongne, M., Tsvetkova, A., Hellström, M. and Wikström, K. 2021. Innovations in veterinary markets: opinion leaders' social capital. *Journal of Business & Industrial Marketing* 36(13), pp. 1–14. doi: 10.1108/JBIM-02-2020-0098.
- Lacey, R. and Morgan, R.M. 2008. Customer advocacy and the impact of B2B loyalty programs. *Journal of Business & Industrial Marketing* 24(1), pp. 3–13. doi: 10.1108/08858620910923658.
- Lave, J. and Wenger, E. 1991. *Situated learning: legitimate peripheral participation*. Cambridge [England] ; New York: Cambridge University Press.
- Makkonen, H. and Johnston, W. 2014. Innovation adoption and diffusion in business-to-business marketing. Prof. Thomas Brashear-Alejandro, Dr Sergio Biggemann, A. ed. *Journal of Business & Industrial Marketing* 29(4), pp. 324–331. doi: 10.1108/JBIM-08-2013-0163.
- Menchik, D.A. 2020. Moving from Adoption to Use: Physicians' Mixed Commitments in Deciding to Use Robotic Technologies. *Work and Occupations* 47(3), pp. 314–347. doi: 10.1177/0730888420919792.
- Meyer, G. 2004. Diffusion Methodology: Time to Innovate? *Journal of Health Communication* 9(sup1), pp. 59–69. doi: 10.1080/10810730490271539.

- Moore, G.A. 2014. *Crossing the chasm: marketing and selling disruptive products to mainstream customers*. Third edition. New York, NY: HarperBusiness, an imprint of HarperCollins Publishers.
- Morgado, A.V. 2021. Customer's expectations and perceptions of reference marketing programs. *Journal of Business & Industrial Marketing* 36(12), pp. 2176–2186. doi: 10.1108/JBIM-05-2019-0202.
- Rogers, E.M. 2003. *Diffusion of innovations*. Fifth. New York: Free Press.
- Ruokolainen, J. 2005. Gear-up your software start-up company by the first reference customer—nomothetic research study in the Thai software industry. *Technovation* 25(2), pp. 135–144. doi: 10.1016/S0166-4972(03)00073-7.
- Ruokolainen, J. and Aarikka-Stenroos, L. 2016. Rhetoric in customer referencing: Fortifying sales arguments in two start-up companies. *Industrial Marketing Management* 54, pp. 188–202. doi: 10.1016/j.indmarman.2015.08.002.
- Sætre, A.S. and Van de Ven, A. 2021. Generating Theory by Abduction. *Academy of Management Review* 46(4), pp. 684–701. doi: 10.5465/amr.2019.0233.
- Salminen, R.T. and Möller, K. 2006. Role of References in Business Marketing—Towards a Normative Theory of Referencing. *Journal of Business-to-Business Marketing* 13(1), pp. 1–51. doi: 10.1300/J033v13n01\_01.
- Terho, H. and Jalkala, A. 2017. Customer reference marketing: Conceptualization, measurement and link to selling performance. *Industrial Marketing Management* 64, pp. 175–186. doi: 10.1016/j.indmarman.2017.01.005.
- Tóth, Z., Naudé, P., Henneberg, S.C. and Diaz Ruiz, C.A. 2021. The strategic role of corporate online references: building social capital through signaling in business networks. *Journal of Business & Industrial Marketing* 36(8), pp. 1300–1321. doi: 10.1108/JBIM-02-2020-0101.