Anni Rajala,
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From transactions to partnerships

Essays in honor of Jukka Vesalainen

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Professor Jukka Vesalainen

PROLOGUE

Professor Jukka Vesalainen retired at the end of November 2022. He has been an exemplary professor of management with primary research interests related to entrepreneurship and business networks. This celebratory book honors Jukka's academic and practical work and acknowledges his significant impact on so many people's lives and careers.

Jukka graduated with a Master of Science in Economics from the University of Vaasa and started his career as the Finance Manager of a small metal manufacturing company. The company was struggling financially, and Jukka was exposed to the reality of a small metals subcontractor trying to negotiate with big customer firms and survive in an industry marked by remarkable power asymmetries. After his experience in the manufacturing company, he shifted to academia part-time and began his PhD at the University of Vaasa while simultaneously establishing his own accounting firm.

The challenging dual role exemplified the interplay between theory and practice he has embraced throughout his career. Jukka defended his dissertation on "The small firm as an adaptive organization: Organizational adaptation versus environmental selection within environmental change" in 1995. Jukka continued his career in academia and was nominated as a professor of entrepreneurship in Kauhava, in a position funded by the entrepreneurship institute of Kauhava and the University of Vaasa. Subsequently, Jukka received a full professorship from the University of Vaasa.

Jukka was keen on entrepreneurship research and built a research group around the topic. However, Jukka's research interests shifted incrementally from entrepreneurship to interorganizational collaboration. Jukka has produced seminal research on business networks and business relationships that has made a significant contribution to practice. Practical relevance and finding ways to apply theory to business activities have always been at the heart of Jukka's research. Those same goals have underpinned Jukka's books on interorganizational relationships, which make countless contributions to the field, including on practical relevance and applications, research and theories, businesses and startups, and the community of management. Jukka's writing has strongly influenced the Finnish business network landscape and the future of the technology industry in the country. He has worked closely with the Technology Industry (Teknologiateollisuus), advising and consulting for a large number of technology companies. Jukka has also recruited several researchers in the fields of

entrepreneurship and business networks and created a platform to nurture researchers' professional and intellectual growth.

Another characteristic of Jukka's academic career is his ability to create new businesses and startups based on his research. For example, MDI and Jakamo were born from Jukka's research in collaboration with his master's thesis group. Jukka was driven by his interest in establishing new businesses and the pure joy derived from supporting those businesses and sparring with their founders. In addition, Jukka has served the University of Vaasa as vice rector, playing an important role in shaping the strategy and structure of the university.

This book was created to honor Jukka's academic career and convey our respect for Jukka as a person, mentor, supervisor, and dear friend. The book comprises chapters written by Jukka's former and current PhD students and team members that reflect Jukka's journey as a researcher and fellow scholar. The chapters relate to important academic and practically oriented topics of Jukka's research and academic career and also provide a sense of each contributor's relationship with him.

We hope this book demonstrates the importance of Jukka's work to the academic community, a large number of companies, students, and particularly to his colleagues in academia.

Jukka, we deeply appreciate your work and contributions. It is sad to see you leave our academic community (which would not exist without you), and we wish you the happiest times in your well-deserved retirement.

Vaasa, December 2022

Anni Rajala, Marko Kohtamäki & Annika Tidström

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1 MANAGING NETWORKS THROUGH RELATIONSHIPS: THE ROLE OF THE PARTNERSHIP MONITOR

Anni Rajala, Marko Kohtamäki & Annika Tidström

No firm is an island, and any business development takes place within ecosystems, networks, and relationships, where firms and other organizations collaborate. In other words, firms are interdependent with other firms and actors in their business environment—they do not often choose to operate in networks; they end up in networks, as perfect markets rarely exist (Vesalainen, 2014). In these times of complex ecosystemic challenges and digitalization, collaboration across firm boundaries is more relevant than ever. While focusing on their core capabilities, firms have become more dependent on their customers, suppliers, and R&D partners. Network management is seen as a means to achieve learning, innovation, and firm performance targets.

The conceptual landscape of relationships and networks

Over time, the conceptual landscape of ecosystems, networks, and relationships has become richer. An ecosystem is "the alignment structure of the multilateral set of partners that need to interact…for a focal value proposition to materialize" (Adner, 2017, p. 40). In addition, the term *ecosystem* is often used when discussing communities of associated actors or different forms of networks (Adner, 2017; Apilo, Valkokari, & Vesalainen, 2014). In business ecosystems, the role of organizational boundaries changes when firms work across the boundaries more effectively by developing new processes and routines (Vesalainen & Rajala, 2014). The main purpose of a business ecosystem relates to the complementarity between the resources possessed by different firms, which creates a need for collaboration. The business network approach focuses on interactions between various actors (Anderson, Håkansson, & Johanson, 1994; Holm, Eriksson, & Johanson, 1999). The business ecosystem perspective differs from traditional business network research that focuses on a focal firm and its business relationships. Therefore, business networks are often operationalized through dyadic relationships.

The relational view of business networks and relationships, particularly the relational governance perspective, builds on ideas originating in transaction cost theory (Williamson, 1975, 1985), which focuses on make-or-buy decisions and the criteria for making such decisions. According to the relational view, partnerships

and networks are understood as an intermediate organizational form between markets and hierarchies, as relationships/partnerships are seen as a more integrated organizational form than market relationships but less integrated than a hierarchy (Thorelli, 1986; Vesalainen, 2004). Consequently, as perfect markets rarely exist, and as organizations often tend to focus on their core competencies, many activities come to be outsourced to networks. Long-term nature and trust are key factors that distinguish networks from perfect markets (Vesalainen, 2002).

In addition to the perspective that interprets networks as a mid-range approach between markets and hierarchies, research theories on relational governance have developed addressing how the actors' behaviors in relationships and networks can be influenced and even managed (e.g., Bradach & Eccles, 1989). Some of these studies suggest that relational governance mechanisms can be simultaneously used to manage relationships (Adler, 2001; Kohtamäki, Vesalainen, Varamäki, & Vuorinen, 2006; Powell, 1990; Vesalainen, 2004). The relational governance mechanisms can be defined as 1) market/price, 2) hierarchy/authority, 3) community/trust (e.g., Adler, 2001; Vesalainen & Kohtamäki, 2015; Vesalainen, Rajala, & Wincent, 2020).

Market governance is typically described as "the rules of arm's length market exchanges" (Ghosh & John, 1999, p. 133). Hierarchical governance is based on an authoritarian power legitimized through a position in a relationship; for example, in a customer-supplier context, the customer may have the power to influence the intentions and actions of a supplier (Adler, 2001; Handley & Benton, 2012; Vesalainen et al., 2020). Networks, or relational governance, assume that exchange partners develop common values and expectations about "proper and acceptable behavior" (Macneil, 1980, p. 38). Network management has been argued to be a mix of these three mechanisms with varying emphasis (Vesalainen, Valkokari, & Hellström, 2017) and depending on the type of relationship. Some relationships may rely on only one dimension of the three (Vesalainen & Kohtamäki, 2015). However, the challenge in managing business networks is that it is not a single entity that is managed: a network constitutes multiple independent and interdependent firms and actors, making network management a multilevel and systemic phenomenon (Vesalainen et al., 2017). Therefore, the managerial power is weaker in network settings despite the common goals network members share (Vesalainen et al., 2017).

Accordingly, when outsourcing, firms face the dilemma of trading some of the benefits of the hierarchy (activities in their own business unit) for benefits that emerge from the networks and markets (Activities performed outside their own organization). In these occasions, adaptive capabilities of the hierarchy are traded

for lower production costs or innovation capabilities of the markets. Estimating these benefits is particularly difficult before the decision (ex-ante), and hence actors are often surprised by the interaction costs of operating in the market. The combined transaction and production costs in the markets become greater than the production costs within the hierarchy (Vesalainen, 2004; Williamson, 1985). Therefore, making the so-called firm-boundary decisions is far from simple.

At the heart of Jukka Vesalainen's work is studying networks and relationships through the relational view. The relational view assumes that inter-organizational relationships can be sources of competitive advantages (Dyer & Singh, 1998). Firms can thus improve their performance and competitiveness through close collaborations and effectively managed relationships (Vesalainen & Autio, 2017). Further, business relationships and networks have to be viewed as configurations of different elements (Vesalainen & Valkokari, 2014), making relationship governance even more challenging.

How can actors improve the operations within networks and ecosystems? Jukka Vesalainen would say the answer lies in the development of dyadic relationships. The relationship between supplier and customer is the micro-level form of organization, which is operational. The primary argument is that the development of any ecosystem or network often begins from the dyadic relationship: Networks are developed through the work done within the dyadic relationship (Vesalainen, 2004).

Partnership monitor framework

Vesalainen (2002, 2006) developed a tool for analyzing dyadic business relationships: the approach and the tool are called the "partnership monitor". The partnership monitor is based on different relationship elements that are analyzed to position the relationship. The theoretical background of the partnership monitor thus builds on the definition of networks as an intermediate form between markets and hierarchies. The focus of the analysis when using the partnership monitor is the inter-organizational relationship, not the companies involved as such (Vesalainen, 2006). However, developing the relationships obviously contributes to firm performance. The focus on the relationship as a unit of analysis is one of the novel aspects of the partnership monitor approach. It is notable that although the partnership monitor is a tool, it is more than a single tool. It is an approach and philosophy primarily targeting relationship development. Hence, whereas the approach draws on pragmatist onto-epistemological ideas, the approach very much builds on a relational onto-epistemological approach (in

management), with aspects emerging from socio-constructionism and the interpretative approach as well.

The partnership monitor is multilevel and multidimensional; it consists of two dimensions: interfirm business-related and organizational bonds (see Figure 1). Interfirm business-related bonds encompass business relationships that aim to produce value-creation opportunities and improve the market positions of the partners involved and their performance (Vesalainen, 2006). Interfirm organizational bonds are organizational linkages between companies created for common goals of inter-organizational relationships (Vesalainen, 2006).

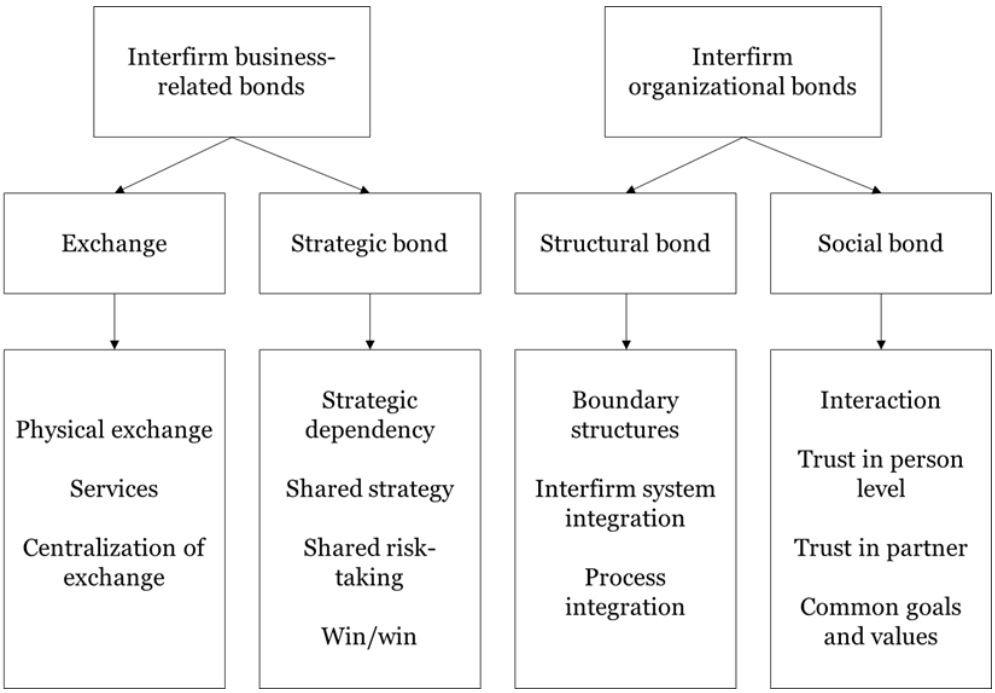

Figure 1. The partnership monitor framework (Vesalainen, 2002, p. 121).

These dimensions, business-related and organizational bonds, are again divided into sub-dimensions. Those sub-dimensions are analyzed through multiple questions using the partnership monitor. Interfirm business-related bonds consist of exchange and strategic bonds, and interfirm organizational bonds consist of structural and social bonds. Exchange is evaluated through questions related to the exchange of physical products and different services and questions related to the centralization of exchange. Strategic bonds relate to strategic dependence, shared strategy, win/win, and shared risk-taking. Structural bonds focus on investigating structures in organizational boundaries and also inter-organizational

systems and processes. Social bonds refer to interaction, trust, and shared goals and means. (Vesalainen, 2006)

When a business relationship is analyzed with the partnership monitor, both relationship parties will complete the survey, and the responses are combined to analyze the state of the relationship. Based on the analysis, development plans regarding the exchanges, relationship structures, and strategic and social bonds can be created. The partnership monitor produces interesting data on how the parties to a relationship assess the state of that relationship and whether their views are similar. The differences may be important sources of relationship development.

Based on the partnership monitor analysis, business relationships can be placed in a continuum of the ideal type of market-based relationships and the ideal type of partnerships (see Figure 2). The empirical study by Vesalainen (2002) confirmed the correlation between the two dimensions of organizational and business bonds, showing that business relationships vary considerably on the relationship continuum.

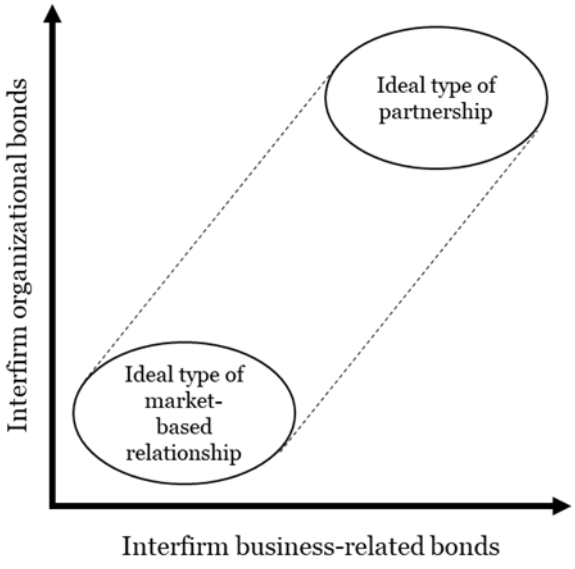

Figure 2. Relationship continuum (Vesalainen, 2002, p. 129).

Different types of relationships can be identified based on the partnership monitor analysis. Vesalainen (2002) identified five different types of relationships that can also be seen as phases for developing a relationship in the direction of a partnership. The relationship types are 1) market-based relationships, 2)

dependency-based relationships, 3) interaction-based relationships, 4) system supplier types of relationships, and finally, 5) partnerships. These all are placed on the relationship continuum. It is important to note the partnership monitor approach does not suggest that one form is universally superior to another. Nevertheless, as organizational and business-related bonds strongly correlate, any firm in a collaborative relationship should be aware of how it wants that relationship to develop. The parties to the relationship would benefit from agreeing how they want to develop the relationship together. Different types of relationships should be managed in different ways, and a strategy for governing relationships should be established (e.g., Kohtamäki et al., 2006; Ritter, Wilkinson, & Johnston, 2004). Furthermore, different types of network capabilities will be needed to successfully manage inter-organizational relationships, and it is found that firms utilize these network capabilities in various ways (Vesalainen & Hakala, 2014).

Importantly, the partnership monitor as a tool reveals the gaps in parties' thinking about the relationship, which could cause disagreement and friction in the future. In essence, the partnership monitor as an approach does not make any normative statements regarding the depth of the relationship. Instead, it reveals the thinking about the relationship, its current and likely future state, and the areas of agreement and disagreement, thus enabling the development of shared thinking within and between the companies.

Managing networks through relationships: the contribution of the partnership monitor

The partnership monitor has significantly contributed to research, research projects, and practice. Furthermore, it has inspired many theses in various educational institutions and prompted consultation business based around the tool itself. Most importantly, the partnership monitor has been widely used in practice.

Many of the ideas within the relational and inter-organizational network research materialize in the partnership monitor approach. Therefore, the approach may be interpreted as a window to the thinking and orientation of Jukka Vesalainen as a professor and business developer. His strong orientation toward analytical thinking, scrutiny of the core definition of partnerships and networks, and advocacy of a social-constructivist measurement method enabled the creation of a common understanding in practice. Not claiming that networks could be managed, but understanding that relationships and networks, and eventually, any human

connections, can be socially constructed, seeing patience, persistence, and discursive construction as virtues of strategic business development also mirror Professor Vesalainen's qualities as a leader.

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2 PAST, PRESENT AND FUTURE OF TRIAD RESEARCH

Anne-Maria Holma

Any network is full of dyads, triads, tetrads, pentads and other types of connections between network actors, so why pay attention to triads? George Simmel (1858-1918), an influential German sociologist, studied associations of three individuals as a fundamental unit of sociological analysis. His motivation was that adding a third actor to a group of two individuals has a bearing on how a group acts. Further, being a member of a group of three is a prerequisite for belonging to a larger group (Simmel, 1908). As early as the 1950s, other researchers in sociology, psychology and social psychology (for example, Caplow, 1956; Davis, 1963; Heider, 1958) noticed the relevance of studying triads in the context of interpersonal relationships.

Those early studies of triads later inspired researchers in several disciplines, and during the last decade, the volume of research on triads and the use of the terms *triad* and *triadic* to describe various types of inter-organizational phenomena embedded in networks has grown remarkably. The expansion of triad research in inter-organizational contexts is summarized in a literature review by Eriksson (2021): between 1990 and 1999, two articles were published in peer-reviewed journals; the number published between 2000 and 2009 was 25, and between 2010 and 2019, it was 117 articles.[1] Some researchers have designated a triad as a unique and meaningful object of investigation in its own right, whereas others regard a triad as the smallest possible set of firms featuring network dimensions (Smith & Laage-Hellman, 1992), which allows the investigation of the connectedness of relationships in a simplified setting (Halinen & Törnroos, 1998). A generic definition of the three-actor triad in an inter-organizational context includes the three being in (directly or indirectly) connected relationships (Vedel et al., 2016).

My interest in studying networks and the complexity of the relationships within them induced me to use triads as units of analysis in my doctoral thesis in 2009. At that time, inter-organizational studies referring to the concept of the triad were few (see Eriksson 2021). It has been interesting to follow the expansion of this stream of research. In this paper, I will provide a brief overview of the past and present state of triad research. In the first section, I will shed light on the theoretical foundations of triad studies. In the second section, I discuss the

[1] The journals with the most triad articles: Industrial Marketing Management, Journal of Purchasing and Supply Management, Supply Chain Management: An International Journal, and Journal of Operations Management.

development of triad studies in the inter-organizational context. The third section presents a selection of recent triad research with new triad concepts. The final section points out some development targets in future triad research.

Theoretical foundations of triad research

The roots

Simmel's classic article, *The Triad* (1908),[2] can be regarded as a seminal article on networks. In the article, Simmel offers an ontology of different types of three-person relationships and describes the sociological relevance of the third actor. Throughout his career, Simmel wrote extensively on the differences between dyads, triads, and larger networks. He claimed that triads are more stable than dyads; if one actor leaves a dyad, the group will cease to exist, whereas, in a triad, one actor can temporarily withdraw from the group or can be replaced by another. Furthermore, Simmel noticed that in triads and dyads, members normally have opportunities to interact directly with each other; meanwhile, in larger groups, formal arrangements are required to mediate the interaction. Thus, dyads and triads require the full attention of their members because the more actors join a group, the less intimate the interaction becomes and the less room there is for individuality.

Simmel made a distinction between different triad structures, i.e., between closed and open triads. In closed triads, all three actors are directly connected, whereas in open triads, two actors are connected by the third actor. Thus, according to Simmel, the mere existence of the third actor was not enough to form a triad; the third actor must be associated with the other two. A further notion in Simmel's work was that each member in a triad operates as an intermediary between the other two by taking different roles. First, the third party can act as a "*non-partisan mediator*" who unravels a conflict between the other two parties by formulating and presenting their claims to one another in an impartial non-affective form. Second, according to Simmel, the third party can act in its own interest as a *tertius gaudens* (which translates as a *rejoicing third*), using the position to take advantage of the disconnection or conflict between the other two parties. Accordingly, the third actor might use strategies that enhance competition, alliances, or mediation.

Later, sociologist Theodor Caplow (1956) built on Simmel's work and focused on the greater diversity of relationships in larger groups compared to triads. In a triad

[2] The article was translated in 1950 from German to English by Wolff: Wolff, K. (1950). T. sociology of Georg Simmel. Glencoe, Illinois: The Free Press.

with unequal power distribution, coalition formations can develop when two actors position themselves against one other. Caplow was mainly interested in power as the driving force of coalitions, whereas the social-psychological balance theory that was initially developed by Heider (1958) suggests that actors in a triad search for cognitive stability because imbalance leads to tensions and instability (Jordan, 1953). Accordingly, balance theory rests on reciprocity and the desire that yields mutual benefits. Triads function best in a balanced state, that is, when there is an agreement between the three members.

Other triad-related concepts originate in social network research and the studies by Ronald Burt (1992), who developed the theory of the structural hole, that is, a gap between two actors with complementary sources of information. In this type of open triad, a third actor can form a bridge between the other two actors, thus utilizing the positional advantage arising from its being embedded in other social structures. The bridging role permits the third actor to either distribute or withhold information. The concept of the structural hole is consistent with sociologist Mark Granovetter's notion of weak ties (1973). Granovetter argues that weak ties are more important sources of new information and ideas than strong ties.

Triads in inter-organizational studies

The previous section illustrates that research on triads in the interpersonal context was well established over a hundred years ago. The first triad studies in inter-organizational contexts were published in the early 1990s by the researchers of the Industrial Marketing and Purchasing (IMP) group, such as Smith and Laage-Hellman (1992). The central tenet of the network approach favored by the IMP Group is that relationships do not concern just two actors but are affected by numerous other actors and vice versa (Anderson et al., 1994). The dyadic perspective is regarded as too narrow because studying a dyad without looking at how it is connected to the other relationships of both customers and suppliers would not provide a comprehensive picture of the relationship (Ford et al., 2003, p. 69). Thus, the interest in triads emerged from the need for data reduction to be able to analyze buyer-supplier relationships in network contexts. Later, the term triadic embeddedness was introduced to express the extent of relationships with third parties shared by two actors in the dyad (Haugland et al., 2021).

Supply chain research has traditionally focused on the buyer-supplier dyad. However, from the early 2000s, supply chain researchers began to claim that a triad rather than a dyad should be considered the basic unit of analysis (e.g., Choi et al., 2002). From there, it was a natural extension to include an additional

supplier in the dyad. In the manufacturing context, most existing triad research has focused on a triad comprising a buyer and two upstream suppliers. Studies have then typically investigated how the buyer can impact the relationship between the suppliers (e.g., Choi et al., 2002). Later studies adopted a different terminology for triads in the manufacturing supply chain, for example, the "*three-tier supply chain*" (Yoo et al., 2021), the "*triadic supply chain*" (Swierczek, 2019, 2020) and the "*multi-tier supply chain*" (Gong et al., 2018). The expansion of triad studies led researchers to develop various triad concepts and triad sub-categories referring to the contextual settings and/or the phenomenon investigated. Selected examples of these studies are discussed below.

New triad concepts and contexts

In service settings, the *service triad* has become an established concept to refer to the relationships between a buyer, a supplier, and the (buying organization's) customer, a typical situation being outsourcing services (Wynstra et al., 2015). Furthermore, challenges in the service provision, for example, monitoring (van der Valk & van Iwaarden, 2011), service quality (VanIwaarden & van der Valk, 2013), opportunism risks (Hartmann & Herb, 2014) and control and commitment (Holma et al., 2015) have been studied by applying the concept of the service triad.

Logistics and transport services are provided in a triadic context, consisting of a buyer, a supplier and a logistics and/or transport service provider. Consequently, the *logistics triad* was described as the minimum unit of analysis in logistics research even in 1989 (Beier, 1989, p. 78). However, logistics researchers started to use the triad concept far later (Larson & Gammelgaard, 2002), for example, to investigate the role of a logistics service provider (LSP) in the triad (Prataviera et al., 2021). Recent logistics studies have extended the logistics triad concept to *construction logistics setups triads* (Eriksson et al., 2021) consisting of developers, contractors, and LSPs, and to *multilayered lean triads* (Kovalevskaya et al., 2021) comprising buyer-supplier-supplier and buyer-supplier-LSP. Vural, Göçer and Halldórsson (2019) examined the concept of the triad in maritime logistics, exploring how value is co-created in a service triad comprising a shipper, LSP, and a shipping line. Swierczek (2022) employed the concept of the *transitive service triad* in the logistics context to analyze industry 4.0 technologies' effect on supply chain emergence and relational performance. Vlachos and Dyra (2019) integrated the concepts of logistics and service triads in introducing *B3B triads*, which are involved in sourcing services from two or more suppliers. Such B3B triads resemble *multiplex triads* in which actors have different roles and are linked by different forms of relationships (Shipilov & Li, 2012). Halldórsson, Vural and

Wehner (2019) focus on a context-specific logistics service triad, the *waste service triad,* and the roles of the actors within it.

Regarding transport services, Eriksson, Dubois, and Hulthén (2022) highlight that transport activities are embedded in both the supply chain and transport network settings. The *transport service triad* (TST) has been added to the family of triads to illustrate the focus on the transport of goods from supplier to buyer. The TST might be of interest to micro-level studies of change in freight transport systems and in supply networks. That is because it could help increase transport efficiency and environmental sustainability in freight transport systems and supply networks (see also Andersson et al., 2019).

Most problems in supplier chains originate from the buyer's distance from the supplier's suppliers and the customer's customers (Villena & Gioia, 2018). Therefore, the triad concept has been used extensively to study sustainability-related issues, for example, in the logistics and transport studies presented above. In other contexts, supply chain researchers have developed concepts such as *sourcing triads* to reveal supply chain intermediaries' roles in enhancing sustainability (Cole & Aitken, 2019) and *agri-triads* to describe the collaboration mechanisms of actors in the food supply chain (Jraisat et al., 2021).

Triads are also used extensively in innovation studies. Potter and Paulraj (2020) and Patrucco, Harland, Luzzini, and Frattini (2022) used the concept of the *supplier innovation triad*, which refers to a setting where firms collaborate with their suppliers and customers to co-develop new technologies. Furthermore, regulated service triad environments have been suggested as relevant contexts to investigate (Sengupta, Niranjan, Krishnamoorthy et al., 2018).

A relatively new empirical context in triad studies is the centralized public procurement of services, a context calling for innovation in which regulations can hinder the development of services. For example, Keränen (2017a) investigated how professional public-sector purchasers form a triadic relationship with the public-sector unit managing the procurement implementation and with private organizations. A further study (2017b) focused on the roles that these actors play in developing public-private partnerships. Other studies in public procurement focused on co-development and innovation have extended the public buyer-supplier dyad by including internal users (Holma et al., 2020) and end-users (Torvinen & Haukipuro, 2018; Torvinen & Ulkuniemi, 2016) in the triad. Uenk and Telgen (2019) and Uenk and Taponen (2020) coined the term *social care service triad* when investigating how public-sector buyers deal with the procurement of social care.

Triads involving consumers have also attracted research interest. Li, Liu, Jia and Sun (2019) and Carissimi and Creazza (2022) distinguish the *Sharing Economy-based Service Triad (SEST)* from traditional service triads. In the SEST, the service platform provides a match-making service to both suppliers and customers. In the B2C context, Kalsbeek, Broekhuis and Roodbergen (2021) studied how to manage suppliers in *online service triads* in which multi-sided platforms serve as intermediaries between consumers and suppliers.

Discussion and conclusions

This paper provides a brief review of past and present triad studies. The roots of triad research lie in sociology and social psychology studies focused on small groups and interpersonal interaction. The first triad research in the inter-organizational context used those theories to study the relationships between organizations embedded in networks. The expansion of triad research from 2010 to date has led to triad studies being conducted in many different contexts and new forms of triad being identified and named. The review of recent triad studies highlights three particular issues. First, the lack of use of original sources; second, the lack of definitions of a triad; and third, the type of actors forming the triads.

First, in academia, presenting the ideas or studies of other researchers without attributing the source is considered serious misconduct (Stacey, 2020). However, some recent studies neglect to mention the roots of triad studies and secondary sources are used as references in their place. Supply chain researchers typically refer to their colleagues' research (most often to Choi et al., 2002; M. Li & Choi, 2009) even when using the original concepts from sociology. For example, Cole and Aitken (2019) refer to Li and Choi (2009) when analyzing the bridging role of intermediaries in establishing a sustainable supply chain, and Kalsbeek, Broekhuis, Manda, and Roodbergen (2021) do the same when focusing on how the buyer connects the supplier and the consumer. In addition, Jraisat, Upadhyay, Ghalia, Jresseit, and Sarpong (2021) ground their triad discussion on the supply chain literature (Choi & Wu, 2009) in identifying triadic approaches to collaboration, as do Suurmond, Menon, and Wynstra (2022) when examining service triad operations.

In addition to the various triad concepts, recent research has developed a number of configurations that describe the structural features of the triads. Most of those configurations are based on the early works of Simmel; however, some are missing the original or/and secondary sources. For example, Patrucco et al. (2022) suggest

a *novel* typology of four archetypes of triads (open and closed) with no discussion of the types discovered in the earlier research.

Second, some years ago, Vedel et al. (2016) claimed that triad research is fragmented, and it is not always clear what authors mean by a triad, and recently Eriksson (2021) came to the same conclusion. The issue of definition also arises in the most current studies, some do not offer a definition of a triad, and few explicate the relevance of applying the concept. Early definitions of a triad established that a three-actor constellation would only constitute a triad if those actors were associated and the relations between them were connected (Simmel, 1908; Vedel et al., 2016). In the absence of that combined association and connectedness, the dyads co-exist in isolation, and what goes on in one dyad has no impact on the others. Therefore the unit of analysis should be a dyad rather than a triad (Vedel et al., 2016).

Third, Simmel's research presents the three parties to a triad as individuals, and in the first inter-organizational studies, the parties are organizations or teams comprising individuals. The latest studies include examples presenting a service platform (Carissimi & Creazza, 2022; Kalsbeek et al., 2021) or legislation (Glas & Eßig, 2018) as actors in a triad. The generic definition of a triad refers to the association between the three actors; thus, defining the triad term and explaining its use when one of the actors is not an individual, or does not include individuals, is important.

Until just a few years ago, literature reviews on triad studies claimed that (service) triads are an under-researched topic (e.g., Sengupta, Niranjan, & Krishnamoorthy, 2018; Siltaloppi & Vargo, 2017). An earlier literature review (Vedel et al., 2016) offered conceptualizations and definitions of triads adopted from research ranging from sociological studies to inter-organizational studies. Following its latest expansion, triad research remains fragmented and often neglects proper discussion of what constitutes a triad, when it is beneficial to use the triad as a unit of analysis, and who the actors in a triad are. Forthcoming research applying the concept of the triad could thus elaborate on these issues.

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3 ADVERTISING INDUSTRY ACTORS IN IDENTITY CRISIS: APPLYING BOUNDARY THEORY TO INVESTIGATE THE TRANSFORMATION OF THE TRADITIONAL ACTOR ROLES IN THE ADVERTISING INDUSTRY

Jesse Heimonen & Tuomas Huikkola

Introduction

Prior research has applied multiple theoretical lenses to investigate industries such as technology and manufacturing (Vesalainen, 2010), the food industry (Heimonen & Kohtamäki, 2014), and shipbuilding (Vuorinen & Kurki, 2010). Those lenses have included the resource-based view/theory (Vesalainen, 2010), transaction-cost theory, and network theory (Vesalainen, 2002). Applying such lenses can illuminate industry structures (Vesalainen & Pihlbacka, 2008), actor roles (Vesalainen, 2004) and the performance of value systems at the company-network level (Varamäki et al., 2003). This study joins the discussion on industry ecosystem structures and actor roles by investigating the Finnish advertising industry. It is aided by the firm boundary theory, which can enhance the holistic understanding of how an industry is structured, how firms are located in the ecosystem, and how firms can reposition themselves in the markets (Santos & Eisenhardt, 2005; 2009). The specific approach used is to apply multiple synergetic, distinctive, and complementary theoretical lenses.

In the advertising sector, repositioning can be achieved through the development of new offerings (e.g., services, advertising formats, new digital channels or platforms, or technology solutions). An alternative route to repositioning is to address activities. A review might address whether activities should involve collaboration with other firms or be completed in-house. Typical activities considered would be business and marketing strategy, channel selection, content creation, material production and sales. Firms typically outsource non-strategic activities and retain core strategic activities in-house (Huikkola et al., 2020). The main question defining actors' role in the value system may be which activities are executed in-house, which conducted through strategic partnerships, and which purchased as regular market transactions. It is equally (if not more) important for an organization to consider which activities create or deliver the offering to its customers. Repositioning creates a strategic risk for any firm as the new position contains several strategic considerations: a) how will customers interpret the maneuver, b) how will rivals respond, and c) will key stakeholders support the

move? A strategic movement thus often forces a firm to reconsider its identity, capabilities, processes, (bargaining) power, and efficiency.

This chapter investigates the advertising industry through the four complementary boundary theoretical lenses mentioned above, namely: 1) identity, 2) power, 3) capabilities and 4) efficiency. Those lenses illuminate the advertising industry structures and the boundary pressures actors face amid the rapid digitalization of the industry. The study's main finding is that emerging technologies provide industry actors with a greater choice over the activities/tasks they execute in-house. Second, the paper argues that the strategic moves of advertisers (brands), in particular, have a systemic effect on the roles of the other ecosystem actors.

Four Lenses of Boundary Theory

This chapter briefly describes four boundary-theory-related lenses. Change in one typically affects changes in other dimensions, creating network effects because of their interplay and interdependency.

Firm identity theory

A firm's identity resembles its DNA, in that it determines what makes the firm unique, its collective characteristics, and the factors that distinguish it from others (Corley & Gioia, 2004). A firm's identity has been described as central, enduring, and distinctive (Albert & Whetten, 1985). Those characteristics complicate changing the firm's identity for any executive, and such change is likely to create tension and conflict among the focal firm's staff and key stakeholders. However, occasionally exogenous factors demand changes to actions, processes, and routines, which can compel firms to alter their identities.

Any executive charged with changing their firm's identity, must be aware that it will be a complex and socially constructed issue. The change will require collective effort and the cognitive capability (microfoundations) to view the firm's operations from different angles. Identity change is associated with changes in culture and mindset, which requires altering both what is said and what is done. Typically a new identity manifests in press releases and executive statements to inform the staff (e.g., a new vision statement, must-win-battles, and objectives). Identity is strongly associated with networks: how organizations' members view and interpret the firm's distinct characteristics is shaped by network members.

Power and positioning theory

Power position accords with the part of the ecosystem where profitability levels are high and low, also known as an industry's sweet spots (Porter & Heppelmann, 2015). Margins are typically high when the threat posed by new rivals and substitutes is low, and the existing rivalry and the bargaining power of suppliers and clients is weak. However, achieving a sweet spot position is difficult as competition is always present, differentiation may be challenging, and acquiring capabilities to reach the sweet spot is costly and time-consuming. In the technology sector, industry sweet spots are achieved through collaboration (e.g., Microsoft's and Intel's "Wintel" position) or executing proprietary strategies effectively (e.g., Apple's Mac or iPhone). In the platform business, a winner-takes--all mindset encourages monopolistic (e.g., Google/Meta) or duopolistic (e.g., Android/iOS) competition once the chicken-and-egg dilemma has been resolved (Hagiu, 2014). In the advertising/marketing sector, power position depends on client proximity, the imitability of actions, and the product's attractiveness and scalability.

Capability theory

Resources and capabilities have become the dominant paradigms in strategic management to explain a firm's sustainable competitive advantage, measured by its achieving above-average rents in the long run. Resources refer to what a firm possesses and its capabilities to the processes and activities undertaken to use those resources skillfully and effectively. Over time, capabilities evolve. This dynamic capability (Eisenhardt & Martin, 2000) is reminiscent of organizational and strategic learning. That helps a firm decide whether to adapt to the changing environment or proactively shape the environment by deploying its innovation capabilities (Wang & Ahmed, 2007). In practice, dynamic capability consists of organization members' (collective) ability to develop visions, strategically foresee new opportunities (Teece, 2007), make decisions on fleeting opportunities (Eisenhardt & Sull, 2001), and modify resources and capabilities to match such exogenous opportunities (Danneels, 2011). In today's complex and ever-changing business environment, capabilities co-evolve and are developed in networks/ecosystems in collaboration with other organizations, sometimes even peripheral ones (Huikkola et al., 2022; Vesalainen & Hakala, 2014). Systemic transitions (e.g., digitalization) do not occur only within certain sectors, but as industries become blurred and converged, the development of capabilities goes beyond traditional industry boundaries. For instance, as the marketing and advertising sector has transitioned from analog to digital, firms have had to acquire different competencies (e.g., in production, sales, and delivery).

Efficiency logic

The efficiency concept is based on transaction-cost theory (Williamson, 2008) that addresses the costs of coordination of activities. This widely used strategy theory evaluates if it is reasonable for a firm to conduct activities in-house, outsource those activities to other firms using market mechanisms, or ally with other organizations (Vesalainen, 2002). Transaction-cost theory thus helps executives to understand the costs and value of soft factors such as social capital (e.g., trust). As mentioned above, firms are often reluctant to outsource strategic activities and generally keep them in-house and develop them internally. In contrast, market and price mechanisms are utilized in activities firms do not consider strategic, and alliances may be used to harvest both ownership and market benefits. Firms are then balancing contradictory goals of building trust and buying cheaply (Vesalainen et al., 2017). Bingham (2022) reports such productive tensions are always present in decisions on whether to make, buy, or ally: The threat of using different mechanisms keeps players on their toes. Efficiency logic is at the core of network theory and helps managers to evaluate opportunity costs and the rationality of decisions.

Analysis of Advertising Industry Actors

Advertising can be defined as "an industry used to call the attention of the public to something, typically a product or service" (Adjust.com, 2022). The three types of advertising are: 1) paid advertising, meaning that an advertiser, typically a brand, pays to get the attention of a certain audience, 2) owned advertising, which includes the promotion through the brand's own channels, and 3) earned advertising, which means obtaining access to the public without directly paying for it (Skyword.com, 2022).

The advertising industry includes several actor identities. The most central—the first-order actors—are the advertisers (brands) and their target customers (audience). The rest of the advertising ecosystem exists to help brands interact with their target audience. Other industry actors, such as publishers, marketing agencies, digital marketing agencies, media agencies, marketing technology providers and platforms, are secondary or second-order actors that exist to help either brands or audiences conduct their activities. Actors that do not necessarily serve advertisers directly but provide services to second-order actors (e.g., technology providers, platforms, freelancers, printing houses, content creators, influencers, and landlords) are third-order actors. However, actors can simultaneously be part of several advertising value systems and play different roles

in different marketing campaigns and projects. Traditionally, actors have less bargaining power the further removed they are from the first-order actors.

Industry actors anchor their identities through their activities on behalf of or in collaboration with advertisers. Typical activities to assist brands include business design, segmentation, target group selection, marketing concept creation, channel selection, marketing material production (creatives), ad space purchasing, ad delivery, reporting, and audience building.

The print and broadcast media have traditionally focused on building audiences, selling ad space and delivering ad content. Out-of-home (OOH) media publishers specialize in commercializing audiences at venues such as gyms, golf courses, public transport, malls, city centers, highways, and gas stations. Typically OOH publishers do not own the venue but pay rent to the venue owners or a share of ad revenue in a manner similar to online advertising platforms.

Whereas publishers focus on building channels to reach audiences, ad sales and content delivery through their channels to acquire efficiency rents through activity scaling, media agencies have built their capabilities on marketing concept design, efficient large-scale campaign planning, channel selection, media purchasing and campaign reporting activities. They provide professional services to brands assisting in-house marketing teams in planning and executing marketing campaigns, efficiently building their power position on accumulated knowledge-based resources. Marketing agencies are among the creative operators of the ecosystem. Their capabilities will include innovative design and message formulation (ad copy), marketing materials (creatives), and content creation. They should also be highly skilled in assisting advertisers to build their own online channels such as websites, web stores, and social media channels.

Marketing agencies have built their identity on highlighting marketing as a profession. They are commonly used to either replace the need for creative in-house marketing capability building or complement the team's capabilities. Digital marketing agencies are a product of the digitalization of the advertising industry. They are actors focusing on either building an advertiser's digital presence to drive potential customers organically to the advertiser's channels (i.e., without payment) or utilizing and optimizing paid traffic to the advertiser's channels. Their power position is built on knowledge of emerging technologies and digital marketing channels.

In the digital platforms and advanced information systems era, advertisers have been given direct access to the resources required to execute any marketing-related activity. That new access has reduced the relative power position of other industry

actors. The greater number of owned-media opportunities means advertisers can even act as publishers. They control channels such as the company website, e-mail marketing, Facebook, Instagram, YouTube, LinkedIn and Pinterest to drive organic (unpaid) traffic to their physical point of sales and web stores. Brands are increasingly utilizing these owned-media opportunities leading to resource reallocations between paid and owned advertising. Digital platforms also offer access to technology-enabled ad space purchasing tools to buy any form of media, be that OOH advertising, print, tv, radio, online advertising, social media, or influencers. Such platforms provide an opportunity to buy media professionally at scale without necessarily using external media buyers. Furthermore, sourcing content creation and marketing materials through freelance platforms has become a viable alternative to some content creation and design activities. Increasing numbers of marketing technologies and platforms reduce information asymmetry and empower advertisers with the flexibility to decide the activities they wish to execute in-house or resource in a new way.

Although technology-driven changes have challenged the way advertisers resource and manage marketing campaigns, they also provide new opportunities for all ecosystem actors to reposition themselves strategically. The barriers to entering any role are lower than ever. An actor can now be a publisher without owning a media environment, establish a marketing agency without having a single copywriter or designer on the payroll, or provide media agency services without years of experience and cultivating personal relationships with multiple publishers.

We are already witnessing these role and identity transformations. Although brands still need paid advertising to acquire new customers and increase brand awareness in the early phases of the customer life cycle to secure the future viability of the publisher identity, the role transformation is already visible in publishers' strategic moves. They are increasingly operating in activities traditionally manifesting media agency, marketing agency, technology partners and platform identities. Adopting several identity activities has led to changes in business strategies, brand names, organizational structures, and internal and external communications. It also raises questions about how advertisers see media campaign planning and channel selection services provided by publishers owing to neutrality challenges to the publisher's own channels. Further, media agencies have taken on strategic business consulting, business design capabilities, advanced data analytics, and reporting capabilities—activities traditionally viewed as the preserve of management consulting firms and technology partners. Their goal is to remain relevant in the future when media buying becomes a commodity.

Moreover, marketing agencies have increasingly absorbed activities that were traditionally the remit of media agencies. But perhaps even more importantly, they have also begun to build capabilities as digital marketing agencies. In the digitized economy, there are no separate fields of digital and analog marketing; there is just marketing tailored to match the flexible needs of the advertiser. Therefore, it may be that in the future, there will be no digital marketing agencies, only marketing agencies equipped with threshold digital marketing capabilities.

Table 1. Stereotypical actor identities in advertising industry.

Identity	Power	Capabilities	Efficiency
Advertiser (Brand)	• Child king (power over every other actor)	• Core business operations • Business strategy • Buying professional services • Inter-organizational collaboration	• Business operations • Purchasing
Media Agency	• Power over publishers and technology partners • Can influence channel selection	• Marketing strategy • Media planning • Media buying • Reporting	• Campaign planning • Media buying • Reporting
Advertising Agency	• Can influence channel selection • Power over creative design	• Marketing concepts • Copywriting • Content • Creatives • Channel-specific technical know-how	• Creative • Message • Designs
Digital Marketing Agency	• Can influence digital channel selection	• Digital marketing (Organic and paid digital marketing) • Digital campaign optimization • Reporting • Technologies	• Digital channel optimization (organic and paid) • Reporting
Publisher	• Power over technology partners	• Media sales • Inventory management • Publishing process • Partner management	• Media sales • Publishing
Landlord	• Power over the Publisher • Controls the media environment	• Running the media environment-specific business or activity serving some audience (e.g., a website, online game, golf course, city)	• Business operations
Technology partner	• Power over own product • Empowering other actors in the ecosystem	• Technologies to facilitate a certain group of other actors in the ecosystem (buyers, sellers, others)	• Technology development

Conclusions

Advertising industry actors face rapidly increasing transformation pressure stemming from emerging technologies and the rearrangement of business activities inside the industry. Traditionally, brands have been seen as active subjects who conduct marketing to affect the behavior of their target audience. The brands utilize the other advertising industry actors as a value system to support that dyadic relationship.

This study contributes to the discussion on the roles of industry actors, industry structures, and value systems by addressing the current changes in the advertising industry via four boundary theory lenses: identity, power, capabilities, and efficiency. The main finding of the study is that emerging technologies and platforms provide advertisers and other industry actors with access to resources that was not previously possible (Danneels, 2011). Emerging technologies and platforms led to flexibility in actor role selection and new identity formulation within and between networks. Second, we found that advertisers' ability and willingness to execute a wider range of marketing-related activities and errands direct the strategic choices of other industry actors. Technology development thus blurs and converges industry boundaries as different actors can operate not only within spaces but also between them.

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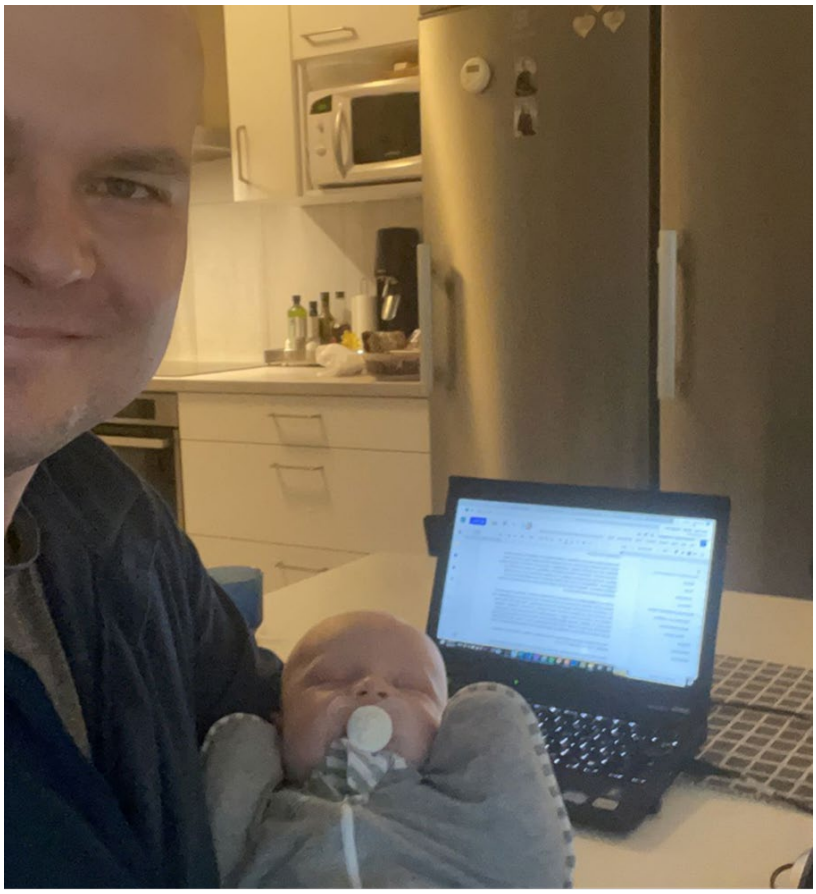
Appendix (research process description)



4 DIGITAL PLATFORMS AS TOOLS FOR THE DIGITALIZATION OF BUSINESS RELATIONSHIPS IN SMALL AND MEDIUM-SIZED ENTERPRISES

Tuire Hautala-Kankaanpää & Anni Rajala

Digital technologies and digitalization have changed how business-to-business firms operate (Ritter & Pedersen, 2020). Digital technologies facilitate interactions between organizations, and digital platforms are seen as sources of competitive advantages (Cenamor, Parida, & Wincent, 2019). However, prior research on digitalization in small and medium-sized enterprises (SMEs) shows that SMEs are lagging behind larger companies in digitalization (Eller, Alford, Kallmünzer, & Peters, 2020). SMEs operate in highly dynamic and competitive environments, and thus it is crucial for SMEs to constantly search for ways to survive, grow, and remain competitive (Martinelli & Tunisini, 2019). Therefore, it is important for SMEs to seek to utilize the benefits of digitalization. Moreover, it is argued that the Covid-19 pandemic made digitalization essential for businesses, and it will soon no longer be an option but a necessity (Fletcher & Griffiths, 2020).

Digitalization literature consists of concepts such as digitization, digitalization, and digital transformation. Digitization refers to the transformation from analog to digital data (Ritter & Pedersen, 2020; Verhoef et al., 2021). Digitalization is defined as the use of digital technologies (Ritter & Pedersen, 2020; Srai & Lorentz, 2019), and digital transformation is seen as the larger change of a firm becoming digital (Verhoef et al., 2021). We focus on the digitalization of business relationships by examining the usage of digital platforms in SMEs' business relationships.

Manufacturing companies increasingly use digital technologies when transacting with trading partners (Yang et al., 2021). These technologies support B2B connectivity, integration, visibility and information exchange between suppliers and customers (Ardito et al., 2019; Li et al., 2020; Seyedghorban et al., 2020). Hence, digitalization relates to the use of digital technologies to improve interactions and transactions along both upstream and downstream supply chains (e.g., Barua, Konana, Whinston, & Yin, 2004; Yang et al., 2021). Prior research shows that supplier and customer integration plays a critical role in firms (Ataseven & Nair, 2017).

This chapter examines the effects of technological turbulence and the usage of digital platforms in SMEs on the activity integration of interorganizational

relationships. Accordingly, the chapter aims to shed light on the digitalization of business relationships in SMEs from the perspective of digital platforms.

Digital platforms for involvement in the SME landscape and the role of technological turbulence

Digitalization has changed the way companies conduct business with each other (Pagani & Pardo, 2017). It has also changed how companies interact along their upstream and downstream supply chains (Porter & Heppelmann, 2014). Digital platforms are increasingly used in different industries (He & Zhang, 2022) and various functions in supply chains (Lin et al., 2021). For SMEs, digital platforms can be particularly useful in responding to the pressures of competition (Li et al., 2016).

Digital platforms as technological architectures refer to the new technology ecosystems characterized by connectivity (Sedera et al., 2016). The platform-as-service (Paas) type platforms are particularly easy to use and support integration between firms. These kinds of interorganizational IT systems are tangible resources that relate to business networks (Vesalainen & Hakala, 2014) and can be adopted quickly and efficiently. Hence, they are considered good solutions for firms seeking rapid market responses (Autry, et al., 2010). The ease of adoption and cost-efficiency of digital platforms makes them attractive to SMEs.

Many SMEs operate in a turbulent environment characterized by constant technological changes (Huo, et al., 2022). Technological turbulence refers to the predictability and the degree of changes related to process and product technologies in the industry (Wilden & Gudergan, 2015). A firm's business environment affects its intention to use supply chain technologies. Further, a firm's willingness to use these technologies increases in relation to the increase of technological turbulence in the environment (Autry et al., 2010). Thus, technological turbulence can be seen as a driver of digital integration and transformation that fosters knowledge sharing (Arora et al., 2016). In addition, technological turbulence has been found to positively influence supply chain practices, patterns, collaboration, and integration (Arora et al., 2016).

Prior research shows that in an environment characterized by technological turbulence, firms' intention to use technologies in their supply chains is higher than in stable environments (Autry et al., 2010). According to prior research, technological turbulence also increases supplier and customer involvement (Huo et al., 2022). Hence, the first hypothesis is as follows:

H1. Technological turbulence increases the use of digital platforms for involvement

Digitally driven supply chain activity integration

Activity integration is an integral part of firms' supply chain management. Activity integration describes firms' ability to integrate both technology and activities between partners (Wu et al., 2006). Technology integration relates to the level of alignment between channel partners, whereas activity integration refers to the coordination of strategic activities such as collaborative planning, forecasting, and cooperation (Bowersod et al., 1999; Wu et al., 2006). Technology integration offers a platform of collaboration between suppliers and customers. However, technology integration does not guarantee that firms' activities will be integrated even if the technology is used (Wu et al., 2006). Therefore, both technology and activity integration are needed as they offer benefits to supply chains, such as just-in-time delivery, inventory and cost reductions, flexibility, and traceability (Rajaguru & Matanda, 2009). In addition, prior research has shown that activity integration between firms increases a firm's responsiveness, which may be beneficial in a turbulent environment (Kim & Cavusgil, 2009; Rajaguru & Matanda, 2009)

Digital platforms used in supply chain management provide the infrastructure and rules that ease the interaction between firms (Eloranta & Turunen, 2016). These platforms therefore offer easy access to integrated activities between firms. Prior research has shown several positive outcomes from digitally supported integration and digital platforms. Digital platforms support the agility of upstream supply chains through connected product design functions and manufacturing (Mak & Max Shen, 2021). Digital platforms have been reported to positively relate to supply chain capability (Wang & Teng, 2022), and data-driven supply chains support activity integration between firms (Yu et al., 2018). In addition, e-procurement increases supply chain integration (Chang et al., 2013), and eBusiness technologies support customer and supplier integration (Devaraj, Krajewski, & Wei, 2007).

It is suggested that interorganizational systems serve as a mechanism for integration between firms (Vanpoucke et al., 2017; Vesalainen & Kohtamäki, 2012). Digital platforms also increase the visibility and connectivity between firms necessary to support activity integration. Therefore, the next hypothesis is presented as follows.

H2. The usage of digital platforms for supply chain involvement increases firms' supply chain activity integration

The research model can be found in figure 1.

Figure 1. Research model

Research methods

Data collection

The data were collected from SMEs operating in the manufacturing sector. Firms were chosen from the Orbis database by limiting the turnover of the firms between 1.5 million and 50 million euros. The qualifying firms were contacted via e-mail and/or by telephone. Totally 1136 companies were contacted, and 194 responses were received. Most of the respondents held managerial positions, such as CEO and owner. The largest industry group was metals and metal products.

Measures

The research included one novel and two established measurement scales. All the items were measured on a 7-point Likert-type scale anchored with completely disagree (1) and completely agree (7).

Digital platforms for involvement was measured with a novel measurement scale consisting of six items. The items are related to the extent of using digital collaboration platforms in supply chain interactions. Exploratory factor analysis was conducted to test the validity of the scales (Costello & Osborne, 2005). One factor emerged, and the loadings varied between 0.77–0.82. There were no cross-loadings.

Technological turbulence (a 3-item scale) measured the level of technological changes in a firm's environment and was adopted from Jaworski and Kohli (1993). *Activity integration* (a 3-item scale) was used to measure both technological and activity integration between firms. The scale was adapted from one in the work of

Wu et al. (2006). In addition, the metal industry and firm size were used as *control variables*.

A confirmatory factor analysis using Amos 26 software ensured the validity of the measurement model. The measurement model shows good fit to the data (x^2/df; 1.77; CFI = 0.98; TLI: 0.97; IFI: 0.98; RMSEA = 0.06).

All items loaded significantly on their latent variables ($p < 0.001$), and the loadings ranged between 0.79-0.93. To ensure the validity and reliability of the constructs average value extracted (AVE), composite reliability (CR) and Cronbach's alpha (CA) were calculated. In addition, maximum shared variance (MSV) and the square roots of the AVE value were included to confirm the discriminant validity.

Table 1. Correlations, means, standard deviations and validity of the constructs

Constructs	Mean	SD	MSV	AVE	CR	CA	1.	2.	3.
1. Digital platforms for involvement	2.9	1.4	0.17	0.69	0.92	0.92	**0.81**		
2. Technological turbulence	3.5	1.3	0.10	0.65	0.85	0.85	0.29***	**0.81**	
3. Activity integration	4.1	1.3	0.17	0.74	0.89	0.89	0.42***	0.31***	**0.86**

* p≤0.05; **p≤0.01; *** p≤0.001
Note: Square root of AVE bolded diagonally

Results

Structural equation modeling was used to test the hypotheses. The direct effect of technological turbulence on digital platforms for involvement is strong and significant ($\beta = 0.240$, $p \leq 0.001$), hence H1. is supported. Also, the direct effect of digital platforms for involvement in activity integration is positive and significant ($\beta = 0.314$, $p \leq 0.001$), thus, H2 is supported. In addition, firm size, industry, and direct relation from technological turbulence on activity integration were controlled. The results are presented in Table 1.

Table 2. The results

Hypothesis	
H1. Technological turbulence -> digital platforms for involvement	0.240***
H2. Digital platforms for involvement -> activity integration	0.314***
Controls	
Metal industry -> digital platforms for involvement	-0.053
Company size -> digital platforms for involvement	0.028
Metal industry -> activity integration	0.085
Company size -> activity integration	0.133*
Technological turbulence -> activity integration	0.240***
R^2	0.22**
x^2/df	1.35
CFI	0.98
IFI	0.98
RMSEA	0.04

* p≤0.05; **p≤0.01; *** p≤0.001

Discussion

Prior digitalization research shows that the digitalization efforts of SMEs are lagging behind those of larger companies (Eller et al., 2020). Therefore, there is a clear research and practical need to focus on digitalization among SMEs. Hence this research aimed to shed light on the digitalization of business relationships in SMEs from the perspective of digital platforms. Digital platforms are seen as cost-efficient and easy to adopt. Therefore, digital platforms offer an attractive way to digitalize business in SMEs that need to overcome the liability of smallness.

Accordingly, this chapter focused on digital platforms to advance involvement, meaning that this study covers platforms used to interact with suppliers and customers. Further, the study focused on the effects of these digital platforms on activity integration between firms. Activity integration refers to technological and activity integration (such as collaborative planning and forecasting) between firms.

The results show that using digital platforms to advance involvement between firms supports activity integration. The effect is unsurprising, as digital platforms to advance involvement enable real-time information sharing and interaction between the downstream and upstream supply chains. Prior research has shown that activity integration can produce multiple benefits for firms, such as increased responsiveness (Kim & Cavusgil, 2009; Rajaguru & Matanda, 2009), just-in-time

delivery, inventory and cost reductions, and flexibility and traceability (Rajaguru & Matanda, 2009). Therefore, the usage of digital platforms should support the activity integration between parties to a relationship, as activity integration should proceed efficiently through digital platforms.

Further, SMEs often operate in highly turbulent environments with constant technological changes (Huo et al., 2022). Technological turbulence is seen as a driver of digital integration and transformation (Arora et al., 2016). This study's results align with prior findings in that they indicate that technological turbulence increases SMEs' use of digital platforms to advance involvement. For SMEs operating in highly dynamic environments, digital platforms for involvement offer an opportunity to stay competitive. This study shows that platforms to advance involvement offer a mechanism for activity integration between firms and therefore serve as an important catalyst of more connected interaction between firms.

Appendix 1. Measures and loadings

Scale and item	Loadings
Digital customer/supplier involvement	
To what extent do you use digital collaboration platforms to interact in the following business processes	
With customers on issues related to the development of your product	0.80
With suppliers on issues related to the development of your product	0.77
With customers on issues related to the development of activities	0.82
With suppliers on issues related to the development of activities	0.85
With suppliers on training or advice related to their product	0.82
In training or advising customers	0.78
Technological turbulence	
The technology in our industry is changing rapidly	0.76
A large number of new product ideas have been made possible through technological breakthroughs in our industry	0.86
Technological changes in this industry are frequent	0.79
Activity integration	
Our company develops strategic plans in collaboration with our partners	0.74
Our company collaborates actively in forecasting and planning with our partners	0.93
Our company projects and plans future demand collaboratively with our partners	0.89

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5 NARRATIVE LEGITIMATION OF NEW VENTURES FOR NETWORKS: COMMUNICATING COHESION, COHERENCE, AND INTERACTIVE PERFORMATIVITY

Vesa Puhakka

Introduction

This chapter relates to cultural entrepreneurship theory. At the heart of the theory is the idea that entrepreneurs legitimize a new venture's credibility, trustworthiness, and desirability for their networks through cognitive and symbolic action (Lounsbury and Glynn, 2019; see Suchman, 1995). Legitimacy is central to entrepreneurship in general (Zimmerman & Zeitz, 2002; Tracey et al., 2018; Fisher, 2020) and new ventures in particular (David et al., 2013; Überbacher, 2014; Wry et al., 2011). Previous research has shown that a critical challenge for the entrepreneur is addressing the liability of newness (Aldrich & Fiol, 1994) and legitimizing a new venture (Navis & Glynn, 2010). While legitimacy is critical to entrepreneurship, we know far less about network-level legitimizing processes (Kohtamäki et al., 2012; Varamäki & Vesalainen, 2003; Vesalainen & Hakala, 2014; Vesalainen et al., 2017). In particular, we do not clearly understand how entrepreneurs use language to interact with a network to shape reality as beliefs about the possible venture (Soublière & Gehman, 2020; Van Werven et al., 2015).

The legitimacy challenges for entrepreneurs and new ventures have yielded an increasing number of studies focusing on the use and role of language in legitimation (Garud & Gehman, 2016, 2019; Lounsbury & Glynn, 2001; Lounsbury et al., 2019; Van Werven et al., 2015). Researchers approaching legitimation in this way have structured a wide range of language roles and strategies that entrepreneurs use to formulate a legitimate new venture (Fisher et al., 2016; Garud et al., 2014ab; Kibler et al., 2017; Navis & Glynn, 2010, 2011; O'Neil & Ucbasaran, 2016; Webb et al., 2009; Williams Middleton, 2013; Wright & Zammuto, 2013). These studies have significantly increased our understanding of entrepreneurship as a social, cultural, and institutional phenomenon. However, our knowledge of how entrepreneurs interact with their networks to undertake new ventures through language use is incomplete.

More specifically, how entrepreneurs use language to interact with their networks to produce reality remains under-understood (Lounsbury & Glynn, 2001; Holt & Macpherson, 2010; Garud & Gehman, 2016; Van Werven et al., 2015). Without a clear understanding of how the entrepreneur associates, through the use of

language, a new venture with social context actors' assumptions about the legitimate venture, our understanding remains limited (Lounsbury & Glynn, 2001; Cornelissen & Clarke, 2010; Navis & Glynn, 2010; Lounsbury et al., 2019). Increasing this understanding is vital because new ventures are not simply established, but the process intimately merges with the networks (De Clercq & Voronov, 2009; Guo et al., 2014; Kibler & Kautonen, 2016; Lindkvist & Hjorth, 2015; Navis & Glynn, 2010; Swail & Marlow, 2018; Vesalainen, 2002). This chapter's contribution is to propose that by exploring the use of language by an entrepreneur to conceptualize a new venture, we can understand how entrepreneurs connect their arguments to the network's assumptions about a credible, trustworthy, and desirable new venture. The following passages discuss a cohesive, coherent, and interactive-performative approach to legitimizing new ventures for networks.

Legitimizing a new venture for a network through narrative action

Legitimizing a cohesive whole

At the heart of the first approach is that the legitimacy of a new venture is based on at least two interrelated events (O'Neil & Ucbasaran, 2016; Warren, 2004). For example, an entrepreneur might relate how: "In my doctoral dissertation, I discovered that spike proteins play a key role in the entry of viruses into cells, causing people to become ill. Later, as an assistant professor, I developed a method by which the mechanisms of spike proteins could be manipulated to prevent viruses from entering human cells. Eventually, I realized there is a great need for this method to treat humans and that vaccines can quickly be synthesized with this technique." The legitimation of a new venture is based on the idea that the previous event produces the next event. The events are not coincidental; there is a causal link between them. In the course of legitimizing, entrepreneurs pick appropriate events from their life, construct themes from them, and ultimately present them as a logical whole (Berglund et al., 2007; Gaddefors & Anderson, 2008; Williams Middleton, 2013). Legitimation is thus built on the cohesion of events so that the audience understands that events are inevitably moving toward a new venture (Cliff et al., 2006).

A cohesive whole is constructed so that legitimacy builds chronologically over time (O'Neil & Ucbasaran, 2016). To legitimize the new venture, entrepreneurs attach time indicators to their narration ("when I did my doctoral dissertation," "later as an assistant professor," and "eventually"). This method helps the audience

perceive the logic of themes and events. Building time into a cohesive whole confers more legitimacy on a new venture than if the entrepreneur argued that its establishment was just a coincidence (De Lange, 2016). The new venture's legitimacy is thus based not only on the story but also on the logical course of development. Therefore, the entrepreneur seeks to communicate the reasonableness of past events to the network actors. The consistency, logic, and timeliness of those events suggest to the audience that they predict future success.

In addition to time, entrepreneurs use roles, related skills, and backgrounds to produce cohesion (Etzioni, 1987; Wright & Zammuto, 2013). Entrepreneurs communicate a self-image of a legitimate actor by linking indicators of their competence and the development of their experience to key themes and events (Stuart & Ding, 2006; O'Neil & Ucbasaran, 2016). In the example above, the entrepreneur was first a doctoral candidate, then an assistant professor, and finally an expert in the field who understands the broader need for their expertise. Through these roles, the entrepreneur settles into specific stages and roles familiar to the audience (De Clercq & Voronov, 2009). Those roles signal evolution and the natural progression that now, as an expert and human being, the entrepreneur is primed to provide significant new value by realizing their potential (Stuart & Ding, 2006). Combining time and roles with themes and events builds larger thematic entities that legitimize the new venture.

In a nutshell, the unit of analysis is the phrase narrated by the entrepreneur and its vocabulary (Warren, 2004). In legitimizing the new venture for the network, the entrepreneur uses tools to build cohesion, especially indicators of time and roles. This way, the entrepreneur seeks to create trust among the audience that the cohesion of the past will continue in the future (O'Neil & Ucbasaran, 2016). Thus, legitimacy arises from the entrepreneur's experiences, events in life, and competence development producing a unified construct (Blalock & Lyu, 2021; Cliff et al., 2006). The message of the entrepreneur's place in this legitimacy story conveyed to the network is central. For example, when entrepreneurs refer to their development from student to researcher, and then later to become experts, they place themselves in specific roles. They give the audience credibility along with the content of the narration. What matters is the need for a viral vaccine based on a new type of technology, who produces it, and with what expertise. Thus, narrative cohesion—consistent themes, progression over time, and specific roles—legitimizes the new venture for the network

Legitimizing a cognitive coherence

The second approach to legitimizing a new venture is based on the idea that while it is possible to bring together the experiences and events of entrepreneurs into a cohesive whole, a legitimate new venture is more than that. The legitimacy of the new venture is also based on appropriate analyses and validation of relevant elements in a cohesive order. Thus, legitimizing a new venture demonstrates the explicit capability of the entrepreneur to create a new venture, for example, by developing a venture plan, acquiring facilities, producing prototypes, and hiring employees (Delmar & Shane, 2004). Using the example above, an entrepreneur can produce high-quality publications on the mechanisms of viruses, patents on the use of spike proteins in vaccines, present several states as initial customers, and confirm funding from the best VCs in the industry. The thinking could be summed up in the view that the entrepreneur is merely a tool to show hard evidence of the possibility of a new venture.

The first and second approaches primarily differ in terms of the basis of legitimacy. Under the first approach, the legitimacy of the new venture is based on the communication of a cohesive whole built on entrepreneurial experience, personal development, and skills. In the second approach, the legitimation emphasizes new venture creation concepts, tools, and analyses. The legitimacy of a new venture arises through expert analysis that serves as a basis for coherence (Fisher et al., 2016; Laïfi & Josserand, 2016). In principle, anyone can devise it, but only an analytically capable entrepreneur can deliver it. Thus, the fact-based opportunity, as well as the analytical knowledge of the entrepreneur, produce legitimacy (Aldrich & Fiol, 1994; Frydrych et al., 2014). The key elements through which a legitimate analysis is produced are (1) an analysis of the situation and background of the entrepreneur and the team, (2) a deficiency or problem identified through the analysis, (3) the entrepreneur's actions and resources through which the problem is worked on, (4) a solution to the problem, and (5) a result that brings economic value (Kuratko et al., 2017). The entrepreneur's narration directs the network to consider the robustness of their analysis, and highlights a defensible need for resources, and how they solved a significant problem methodically to create significant new economic value.

In summary, the entrepreneur's job is to provide the network with the highest quality and most relevant information possible (Frydrych et al., 2014). Thus, in legitimizing for the network, the entrepreneur is an intellectual actor, a human computer that processes the accurate conclusion (Aldrich & Fiol, 1994; Laïfi & Josserand, 2016; Wang et al., 2017). Indeed, this is not the case in reality, but the entrepreneur's speech creates an as-if image of this. The criteria for legitimacy,

therefore, do not come from the individual experience or skills of the entrepreneur but from strict new venture creation criteria that assess how much economic value the new venture can generate (Kuratko et al., 2017; Shepherd & Zacharakis, 2003). The entrepreneur must prove they know how to apply those criteria and understand that their role is to maximize the owners' wealth (Pollack et al., 2012; Webb et al., 2009). Based on the analysis, entrepreneurs should present a reliable value story, a script for operations and outline how the company is progressing step by step toward significant growth (Pryor et al., 2016). However, it is essential to note that because the situation in creating a new venture is genuinely uncertain, entrepreneurs construct rituals in their community, such as applying for financing and doing test marketing, creating an image to convey they have thoroughly analyzed the situation (Aldrich & Fiol, 1994).

Both approaches above explore the legitimacy of new ventures from the perspective of the entrepreneur and the simplification of complexity. While the legitimation in both approaches includes a wide range of elements, ranging from personal development and expertise to an accurate analysis of the market and financial needs, it is individual-centered talk of legitimacy. The direction is one-sided from entrepreneur to network. The second common denominator of the approaches is to approach legitimacy in a way that can be understood as simplifying complexity. Simplification is the basis on which the new venture is presented to the network for approval.

Legitimizing an interactive performativity

The third approach to legitimizing a new venture for a network focuses on an interactive discussion (Garud & Gehman, 2016; Lounsbury & Glynn, 2001; Navis & Glynn, 2010, 2011). At the center is the interaction, where past events are utilized in the present to produce the future (De Clercq & Voronov, 2009b; Garud et al., 2014ab; Hjorth, 2007; Soublière & Gehman, 2020). If we use the example of a face, the narrator could use language to color the interpretation. The narrator could take on the traditional meaning of a face but tell the audience that it is the face of a monster, or change the image of the face to a scary one, to convey something to be rid of. The narrator might also suggest helping the audience eliminate the threat. In this way, entrepreneurs can interactively build a role and space for themselves through the use of language.

The example shows how the entrepreneur can use the materials of the two previous approaches as narrative resources (Nicholls, 2010). However, the focus is on how they are utilized in the interactive use of language as it works on beliefs about the future (Holt & Macpherson, 2010; Lounsbury & Glynn, 2001; Navis & Glynn,

2010). This could mean, for example, that an entrepreneur consciously highlights past successes when presenting the potential of a new idea to a network. Thus, the story of legitimizing a new venture through cohesion or coherence alone is not adequate; the interaction that transforms belief into reality must also be included (Clarke et al., 2019; Engel et al., 2020; Tracey et al., 2018).

This means that the language of legitimacy is performative; language not only describes reality but also does things and does them powerfully (Garud & Gehman, 2019). For example, when a top expert on virus vaccines tells listeners how spike proteins work when viruses enter cells and that the speaker holds patents to take advantage of this mechanism, it builds authority to define the phenomenon for others. The speaker assumes the role of expert and owner of the subject: The person who determines the speech's situation and content. The audience is the object whose task is to support and accept the expertise and legitimacy of the entrepreneur. Thus, the interactive use of language produces reality.

This scenario occurs in different situations and through both everyday conversations and grand narratives (Selden & Fletcher, 2015). It always has a background and history and produces effects in the context in which it occurs (De Clercq & Voronov, 2009; Fisher, 2020; Garud et al., 2014a; Lindkvist & Hjorth, 2015; Lounsbury et al., 2019; Soublière & Gehman, 2020). The use of language in situations follows cultural-historical practices (Navis & Glynn, 2010, 2011). Entrepreneurs use analogies (Cornelissen & Clarke, 2010), frames (Snihur et al., 2021), metaphors (Sørensen, 2008), rhetoric (Thompson, 2018; Van Werven et al., 2015), and narrative practices (O'Connor, 2002) to legitimize their new ventures. The key is to see that this approach does not relinquish the benefits of cohesion and coherence but employs them as linguistic resources to achieve something. They can act as some of the tools to build trust and persuasion (Lounsbury & Glynn, 2001; Tracey et al., 2018). While they play a role in legitimacy, cohesion and coherence alone do not explain the interactive-performative use of language that does not necessarily follow traditional communication techniques. Nor can they assist when the entrepreneur consciously challenges the prevailing mindset to create space for the entrepreneur to create the reality desired.

A key point that distinguishes the interactive-performative approach from the previous ones is that legitimation is a place for the linguistic activity that produces something (Holt & Macpherson, 2010; Garud & Gehman, 2016; Van Werven et al., 2015). Legitimation then merges with its social network (De Clercq & Voronov, 2009; Guo et al., 2014; Kibler & Kautonen, 2016; Lindkvist & Hjorth, 2015; Navis & Glynn, 2010; Swail & Marlow, 2018). It allows, for example, entrepreneurs to acquire support, compassion, and trust (Miller et al., 2012), even when they have

failed in the past (Byrne & Shepherd, 2015; Kibler et al., 2017). Entrepreneurs also use non-linguistic symbols such as dress, gestures, or gifts alongside speech to foster legitimization (Clarke, 2011). Together, these allow entrepreneurs to produce and share their own identity as part of the identity work of others (Lounsbury & Glynn, 2001). Identity is not just a reflection of cohesive or coherent analysis but is constructed through interaction (Cornelissen & Clarke, 2010; Navis & Glynn, 2010). Therefore, research approaching legitimacy from this perspective may ask: Why is such a story being told? What does it aim to achieve? Legitimizing for the network actively seeks to take account of the audience's background and influence its members' interpretations of the new venture.

Discussion

Narrative legitimation is essential for entrepreneurs to make themselves and their new ventures desirable, credible, and appropriate for the networks. The legitimacy of an entrepreneur and a new venture determines whether they have enough resources at their disposal to start a business. However, previous research has looked at legitimacy from the perspective of an individual company as if stagnant and something you have or do not have. However, based on the network point of view, it can be said that entrepreneurs actively engage with their networks. The value is created due to the division of labor between the actors in the network. Through this, future entrepreneurship legitimacy research should focus on raising entrepreneurs' language use, especially the narrative strategy in their networks. In addition, legitimacy research should shift the focus from individual firms to the level of networks.

Entrepreneurs tell stories in and for their networks. They report why things have become as they are. Entrepreneurs' narrations position actors in time and space, organize events logically, make sense of what happened, and build beliefs about the future in their context. Entrepreneurs' narrations reflect both how they perceive events and the meanings they ascribe to those experiences. The same narrations also highlight the means used to achieve a purpose. The more digital the world is, the more networked it is. Accordingly, language use, social media, legitimacy, and networking have become increasingly intertwined in entrepreneurship. Network research is perhaps more relevant than ever.

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6 THE IMPACT OF SUPPORT AND ROLE MODELS ON ENTREPRENEURIAL INTENTIONS IN THE CLOSEST NETWORK

Sanna Joensuu-Salo & Elina Varamäki

Introduction

Research on entrepreneurial intentions has attracted considerable interest among scholars over the past 20 years (Kolvereid, 1996; Krueger & Carsrud, 1993; Liñán & Fayolle, 2015; Kautonen et al., 2015). Krueger et al. (2000, p. 420) defined entrepreneurial intention as "the target behaviors of starting a business." As entrepreneurship is one of the factors in society creating well-being and new jobs, there is a growing interest in discovering the factors affecting the entrepreneurial intentions of young individuals.

Entrepreneurial intentions have been widely researched from different perspectives; however, the network perspective is perhaps underrepresented in the literature. Many previous studies investigate relationships between individuals in social networks and find them central to business foundation (e.g., Ostgaard & Birley, 1996; Jenssen & Koenig, 2002; Klyver & Hindle, 2007). Socio-psychological perspectives—including social exchange theory (Emerson, 1981), social networks (Granovetter, 1985; Burt, 1992), the social capital approach (Nahapiet & Ghoshal, 1998), and network learning (Lane & Lubatkin, 1998; Knight, 2002)—signal that an individual's closest network (e.g., parents, spouse, partner, friends, and colleagues) can play a major role in forming entrepreneurial intention.

One of the most used theories in the context of entrepreneurial intention research is the Theory of Planned Behavior (TPB) developed by Ajzen (1991). The TPB suggests that intention is the immediate antecedent of behavior. Consequently, the stronger the intention to engage in a specific behavior, the more likely is its actual implementation (Ajzen, 1991). Many researchers have confirmed the validity of the TPB as a predictor of human behavior (e.g., Chu et al., 2016; Yang et al., 2018). The TPB has three conceptually independent antecedents of intentions: attitudes, the subjective norm, and perceived behavioral control (Ajzen, 1991).

The current research concentrates on the impact of the subjective norm, which is viewed as a network factor. The subjective norm is based on beliefs concerning whether important referent individuals or groups approve or disapprove of an individual establishing a business and to what extent that approval or disapproval matters to the individual (Ajzen, 1991, p. 195). Another network factor of interest

is an entrepreneurial role model in an individual's closest network. Prior research has shown that parental role models, for example, have a positive relationship with entrepreneurial intentions and the decision to become an entrepreneur (Varamäki et al., 2016; Chlosta et al., 2010). The degree of similarity between the entrepreneur and the role model moderates that relationship (Bosma et al., 2012). This research complements existing entrepreneurial intention research by showing how an individual's closest network (in terms of social norms and social learning through role models) affects that individual's entrepreneurial intentions. This research also shows that this effect may vary between countries.

Accordingly, this research examines how the network factors of the subjective norm and entrepreneurial role models affect the entrepreneurial intentions of students in three European countries. The data consist of 948 answers from students in both secondary and tertiary education in Finland, Belgium, and Spain.

Theoretical framework and hypothesis development

Theory of Planned Behavior

The TPB extends Ajzen and Fishbein's theory of reasoned action (see Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). The most important factor in the TPB is intention, defined as the "individual's intention to perform a given behavior" (Ajzen, 1991, p. 181). The TPB (Ajzen, 1991) suggests that intention is the immediate antecedent of behavior; thus, the stronger the intention to engage in specific behavior, the more likely it is to be performed. The intention to undertake a certain behavior has been reported to be one of the strongest predictors of a given behavior (Fishbein & Ajzen, 1975; Bagozzi, 1992; Krueger & Carsrud, 1993). The TPB model has been widely used, tested, extended and criticized (Armitage & Conner, 2001). The model has often been utilized within entrepreneurship research and with student populations (e.g., Krueger & Carsrud, 1993; Krueger et al., 2000). At the core of the TPB is the idea that intentions have three conceptually independent determinants, namely the subjective norm, the attitude to the behavior, and perceived behavioral control (Ajzen, 1991, p. 188).

The notion of the subjective norm refers to the perceived social pressure to perform or not perform a behavior. In our case, that behavior is starting a business. It refers to the assumption that their social environment affects people's intentions and actions. Fishbein and Ajzen (2009, p. 129) state, "social norms refer to what is acceptable or permissible behavior in a group or society…(and) have been conceptualized as strict rules, as general guidelines, or simply as empirical

regularities." In the context of the TPB, social norms are viewed more narrowly as an individual's perception of social pressure from important others (Fishbein & Ajzen, 2009; Ajzen, 1991).

Attitude to the behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. The more positively an individual perceives the likely outcome of starting a business (see, e.g., Krueger et al., 2000; Pruett et al., 2009), the more favorable their attitude to that behavior should be and, consequently, the stronger the individual's intention to start that business should be. Research has shown that the mean correlations of attitudes with intentions range from.45 to.60 (Fishbein & Ajzen, 2009).

Perceived behavioral control refers to the perceived ease or difficulty of performing the behavior. It is based on beliefs concerning the presence or absence of requisite resources and opportunities to undertake a given behavior (see Bandura et al., 1980). Ajzen (1991) stated the notion is most compatible with Bandura's (1977a) concept of perceived self-efficacy. Contributors to the entrepreneurial intention literature have often used perceived behavioral control and entrepreneurial self-efficacy almost synonymously (Schlaegel & Koenig, 2014). Perceived behavioral control has a double role in the TPB; in some cases, it predicts behavior, but it is also an antecedent of intention and explains behavior via intention (Ajzen, 1991).

Many studies suggest perceived behavioral control is the best predictor of intentions (Drost & McGuire, 2011; Lee et al., 2011). The second-most common predictor is attitudes (Zampetakis et al., 2009; Moi et al., 2011), followed by the subjective norm (Engle et al., 2010; Siu & Lo, 2013). Kautonen et al. (2015) found that attitude, the subjective norm, and perceived behavioral control jointly explain 59 percent of the variation in intention. A meta-analysis conducted by Shclaegel and Koenig (2014) concluded that perceived behavioral control had a significantly greater effect size than either attitude or the subjective norm. With reference to the TPB, we present three hypotheses:

H1: The subjective norm has a positive relationship with entrepreneurial intentions.

H2: Positive attitudes to entrepreneurship have a positive relationship with entrepreneurial intentions.

H3: Perceived behavioral control has a positive relationship with entrepreneurial intentions.

Entrepreneurial role models

The basic idea of Bandura's (1977b) social learning theory is that individuals learn through the process of observation and their own experiences. That means individuals can imitate the behaviors of models in their environment and networks. In entrepreneurship, an entrepreneurial role model can be someone from the individual's closest network, such as family members or friends with experience in an entrepreneurial career. These relationships constitute strong ties and are closely related to the emergence of entrepreneurship, more so than more distant relationships (Sundararajan, 2020; Evald et al., 2006; Chereau & Meschi, 2021). Such relationships are also arguably more readily available to students in both secondary and tertiary education. Prior research has shown the importance of role models in explaining entrepreneurial intentions and actions (Varamäki et al., 2016; Chlosta et al., 2010; Kolvereid, 1996; Bosma et al., 2012).

Entrepreneurial role models are also important to the development of entrepreneurial competence (Markowska, 2011). Uygun and Kasimoglu (2013) found that in the case of entrepreneurs who started their enterprises in the field where their role models were already active, the role models first affected self-efficacy, then the enhanced self-efficacy positively affected perceived feasibility. Uygun and Kasimoglu argue that in cases where entrepreneurs enter different sectors from their role models, the role models directly influence perceived desirability and self-efficacy. Engle et al. (2011) examined the relative social influence of family, friends, and role models on entrepreneurial intent in 14 countries. The study reported that each of the individual social groups is a significant predictor of entrepreneurial intent. Accordingly, we propose the following hypothesis:

H4: Entrepreneurial role models in an individual's closest network positively correlate with entrepreneurial intentions.

Research design

Data collection

The data supporting this research were gathered from secondary- and tertiary-level students in three European countries: Finland, Belgium, and Spain. The original questionnaire was constructed in English and translated into other languages by teachers. The data were analyzed using the SPSS 26 program.

The respondent sample totals 948 students (Finland 646; Belgium 192; Spain 110). The Finnish sample had 294 tertiary-level students and 352 secondary-level students. The Belgian sample comprised only students in tertiary education, and the Spanish sample only secondary-level students. Table 1 presents the background characteristics of the respondents in each country. In the Finnish and Belgian samples, there are more women (66–67 %) than men (32–33%). In the Spanish sample, there are more men (59 %) than women (39 %). The respondents were studying a range of subjects. The age range of the respondents was 16 to 57 years, and the mean age varied between 20 and 22 years. The majority of the respondents had some entrepreneurial role model in their closest network.

Table 1. Background characteristics of the respondents.

	Finland (n=646)	Belgium (n= 192)	Spain (n=110)
Gender	Male 31.6 % Female 66.7 % Other 1.7 %	Male 33.3 % Female 66.1 % Other 0.5 %	Male 59.1 % Female 39.1 % Other 1.8 %
Field of study	Culture 10.7 % Natural Sciences 0.9 % Natural Sources and the Environment 3.9 % Tourism, Catering and Domestic Services 9.4 % Social Services, Health and Sports 8 % Technology, Communications and Transport 50 % Social Sciences, Business and Administration 10.4 % N/A 6.7 %	Humanities and Education 0.5 % Natural Sciences 42.2 % Natural Sources and the Environment 21.9 % Social Services, Health, and Sports 0.5 % Technology, Communications and Transport 2.6 % Social Sciences, Business and Administration 14.1 % N/A 18.2 %	Humanities and Education 0.9 % Natural Sciences 12.7 % Natural Sources and the Environment 23.6 % Tourism, Catering and Domestic Services 0.9 % Social Services, Health and Sports 0.9 % Technology, Communications and Transport 10 % Social Sciences, Business and Administration 40 % N/A 10.9 %
Entrepreneurial role models	Yes 67.5 % No 32.5 %	Yes 55.2 % No 44.8 %	Yes 65.5 % No 34.5 %
Age	Min 16 years Max 57 years Mean (SD) 20 years (5.4)	Min 18 years Max 31 years Mean (SD) 21 years (1.8)	Min 17 years Max 47 years Mean (SD) 22 years (5.5)

Variables

Ajzen's TPB (1991) was applied when measuring entrepreneurial intention and the antecedent of intentions (attitudes, perceived behavioral control, and the subjective norm). We applied items from Joensuu-Salo et al. (2015) in measuring the components of TPB. Entrepreneurial intentions were measured with eight items. Cronbach's alpha readings indicated good reliability for the scale (.81). Perceived behavioral control was measured with five items that recorded a Cronbach's alpha of.70. Attitudes to entrepreneurship were measured with nine items. The items included both instrumental (i.e., respected), experiential (i.e., interesting), and anticipated affect (oppressive) attitudes. The Cronbach's alpha for attitudes was.79. The subjective norm was measured with two sets: the first one measured belief items (the belief of the support an individual receives from the most important people), and the second recorded the motivation to comply items referring to each of the belief questions. Belief items were measured with three items, and motivation to comply with three items using a 7-point Likert scale. The statistical analysis followed Ajzen's (1991) recommendation that each normative belief item should be multiplied by the person's motivation to comply item. A coding scale anchored with -3 and +3 was used, and a subjective norm index (ranging from -63 to +63) was created. As a result, the subjective norm is directly proportional to the sum of the resulting products across the salient referents. The Cronbach's alpha for belief items was.78, and for motivation to comply items.80. All the scales indicated sufficient reliability based on Nunnally's (1978) recommendation by recording at least.70.

Entrepreneurial role models were measured with the question, "Have some of your closest people (parents, sisters, friends) worked as an entrepreneur?" The analysis coded a positive answer as 1 and a negative response as 0.

We used two control variables, gender and age. Gender was chosen as a control variable following prior research on entrepreneurial intentions (see Liñán & Fayolle, 2015). Gender was operationalized as one for male and zero for female (other = missing information).

Analysis methods

We used linear regression analysis to analyze the hypothesized model. The main idea of multiple regression analysis is to determine what proportion of the variance of a continuous variable is associated with or explained by two or more other variables (Cramer, 2003). Such analysis takes account of the associations between those explaining variables. Least squares estimation techniques were used (Hardy,

1993). Cramer (2003) notes that the continuous variable being explained should be normally distributed. Likewise, Hilbe (2009) reminds us that the response and error terms should be normally distributed. In addition, several other assumptions should be satisfied. The expected value of error should be zero; the variance of the error term should be the same, or constant, for all values of the independent variables (homoscedasticity); there should be no correlation among the error terms (no autocorrelation); there should be no correlation between the error terms and the independent variables; and finally, there should be no multicollinearity (Menard, 2010). The regression model was tested with the whole sample and separately in each country.

Results

Table 2 presents the results of the linear regression analysis. The results using all data (948 responses) show that both the subjective norm (β 0.14, $p<0.001$) and role model (β 0.06, $p<0.05$) explain entrepreneurial intentions. This result confirms Hypotheses 1 and 4. The most significant variable in the model is perceived behavioral control (β 0.35, $p<0.001$), followed by attitudes (β 0.30, $p<0.001$). This result offers support for Hypotheses 2 and 3. Neither gender nor age explains entrepreneurial intentions in the model. The whole model explains 32 % of the variance in entrepreneurial intentions.

However, the results differ by country. In the Finnish sample, both subjective norm (β 0.09, $p<0.01$) and role models (β 0.09, $p<0.01$) were significant factors explaining entrepreneurial intentions. The most significant variable was perceived behavioral control (β 0.41, $p<0.001$), followed by attitudes (β 0.29, $p<0.001$). Gender (β 0.07, $p<0.01$) and age (β -0.09, $p<0.01$) were both significant variables in the model. Age explained entrepreneurial intentions negatively; younger respondents had stronger entrepreneurial intentions than older respondents. In the Belgian sample, the subjective norm was not a significant factor in explaining entrepreneurial intentions. However, role models were (β 0.14, $p<0.05$). The most significant variable explaining entrepreneurial intentions was perceived behavioral control (β 0.36, $p<0.001$) followed by attitudes (β 0.31, $p<0.001$) as in the Finnish sample. However, neither gender nor age were statistically significant variables in the model. In the Spanish sample, the subjective norm has statistical value (β 0.19, $p<0.05$), but role models did not explain entrepreneurial intentions. In contrast to the Finnish and Belgian samples, the most important variable explaining entrepreneurial intentions was attitudes (β 0.42, $p<0.001$), followed by perceived behavioral control (β 0.36, $p<0.001$). Gender and age were not statistically significant variables in the model. The Finnish model explained about

40 % of the variance in entrepreneurial intentions, the Belgian model explained about 28 %, and the Spanish model explained about 46 % of the variance in entrepreneurial intentions.

Table 2. Results of the linear regression analysis.

	All data (n=948)	Finland (n=646)	Belgium (n= 192)	Spain (n=110)
Constant	B 0.573** (0.207)	B 0.217 (0.223)	B 1.794* (0.737)	B 0.628 (0.550)
Subjective norm	B 0.008*** (0.002) β 0.138	B 0.005** (0.002) β 0.087	B 0.003 (0.004) β 0.051	B 0.012* (0.005) β 0.194
Perceived behavioral control	B 0.394*** (0.033) β 0.349	B 0.434*** (0.038) β 0.406	B 0.431*** (0.077) β 0.364	B 0.392*** (0.087) β 0.358
Attitudes	B 0.346*** (0.034) β 0.295	B 0.323*** (0.040) β 0.278	B 0.347*** (0.071) β 0.309	B 0.431*** (0.079) β 0.419
Role models	B 0.140 * (0.062) β 0.062	B 0.202** (0.071) β 0.090	B 0.246* (0.113) β 0.136	B 0.057 (0.157) β 0.026
Gender	B 0.002 (0.060) β 0.001	B 0.226** (0.071) β 0.101	B 0.057 (0.125) β 0.030	B 0.069 (0.152) β 0.033
Age	B -0.011 (0.006) β -0.051	B -0.018** (0.006) β -0.093	B -0.054 (0.031) β -0.108	B -0.013 (0.014) β -0.067
F statistics	72.379***	70.087***	13.204***	15.858***
Adjusted R^2	0.316	0.396	0.279	0.459

Standard errors are reported in parentheses.

*, **, *** indicate significance at the 90 %, 95 %, and 99 % level, respectively.

Discussion and conclusions

This research aimed to examine how two network factors, namely the subjective norm and entrepreneurial role models, explain students' entrepreneurial intentions in three European countries. The results show that both network factors explain the formation of entrepreneurial intentions when examining the combined data from Finland, Belgium, and Spain. However, there are differences between the countries. In Finland, both factors significantly explain the entrepreneurial

intentions of students, but in Belgium, only role models are significant, and in Spain, only the subjective norm. Based on the results, we argue that cultural factors have affect the relationships between entrepreneurial intentions and antecedents. This finding confirms the findings of Engle et al. (2010) that in the case of TPB, the significant contributing model elements differ by country, as does the percentage of the variance explained by the model.

In addition, Pearson and Chatterjee (2001) argued that culture has a major impact on individuals' behavior and thus also affects the context of entrepreneurship. Hayton et al. (2002) conducted a literature analysis that established entrepreneurship is heavily affected by cultural values, and culture relates to entrepreneurial activity. Our results confirm that cultural factors play a role in entrepreneurship and, especially, in the formation of entrepreneurial intention. The effect could be caused by the national framework condition: According to the global entrepreneurship monitor (GEM, 2020), it is easier to start and develop a business in some countries than others.

Our results also show that the effect of gender differs between countries. In the Finnish sample, men have stronger entrepreneurial intentions than women do, but this effect was not found in the Belgian or Spanish sample. This finding is interesting because prior research indicated women tended to have weaker entrepreneurial intentions (Nowinski et al., 2019) and engage in less start-up activity than men (Joensuu-Salo et al., 2015).

This research confirms the validity of TPB but raises the question of cultural context. It seems that, especially in relation to network factors (the subjective norm and role models), the cultural framework has some kind of effect. This finding should prompt more research on the moderating effect of culture.

Our study has some limitations. First, the samples represent only some educational institutes in their country, which may affect the results. Second, the samples differ in terms of the background of the students (i.e., secondary and tertiary education level, field of study, gender, and age), which might also affect the findings. Despite these limitations, our results provide new insights into the network factors affecting the entrepreneurial intentions of European students.

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7 ENTREPRENEURSHIP, NETWORKS, AND COLLABORATIONS: PRAGMATIC REVIEW WITH RANDOM SELECTION, INTERPRETATION, AND ANALYSIS

Henri Hakala

Abstract

Using a novel pragmatic review method, with random selection, interpretation and analysis, this paper reviews some important works on entrepreneurship, networks, and collaboration. The aim is to celebrate Professor Jukka Vesalainen, and to say thank you to him. The paper itself contributes no scientific insights but might be considered entertaining for a rather limited number of people. However, it develops and describes a practical solution to white paper syndrome and may hence be a helpful inspiration for someone who needs to write a paper in a short space of time.

Introduction

I believe that the expansion of cooperation and the development of the individual are mutually dependent realities, and that a due proportion or balance between them is a necessary condition of human welfare. Because it is subjective with respect both to a society as a whole and to the individual, what this proportion is, I believe science cannot say. It is a question for philosophy and religion (Barnard 1938, p. 296).

Reviewing the literature on entrepreneurship, networks, and collaboration between firms has never been timelier. The world is currently changing and undergoing major sustainability and digital transformations and successful societies have an ongoing need to understand how entrepreneurship, networks, and collaboration contribute to positive change. However, this paper is not the place to do so and nor is it the time. Instead, this paper first argues that entrepreneurship, networks, and collaboration are also core competencies of a good university professor such as the honorable Jukka Vesalainen.

Entrepreneurship has been defined in multiple ways. One of the classic ideas is to look at entrepreneurship through identities—the set of meanings, attitudes and beliefs, attributes, and subjective evaluations of behavior—that define a person in an entrepreneurial role. Sometimes professors can also be entrepreneurs by identity, even if university administrators do not always like it. While professors

are not often in business as such or owner-managers, they sometimes conduct their work as researchers, supervisors, or vice-rectors in a highly entrepreneurial manner. Consequently, they can be seen as innovators, actively developing their organizations and the people around them, and often generating important impacts beyond measurement.

Networks are sometimes defined as an arrangement of intersecting horizontal and vertical lines (Google Dictionary). However, the definition adopted in this paper suggests that networks are a group or system of interconnected people or things. Clearly, this idea of networks also has great relevance for the work of professors as "no professor is an island" (cf. Håkansson & Snehota, 1989). Hence, any attempt to understand a professor's behavior will require a shift in focus away from simplistic indicators such as citations and toward the way professors relate their own activities and resources to those of the other parties active in their context. I would argue that if a group of former PhD students engages in writing a celebratory book for a professor, that suggests rather good way of relating.

Collaboration or cooperation can be defined as the action or process of working together to the same end. It is clearly one of the most important operational modes that enable professors to be effective researchers and entrepreneurs. It links closely with the idea of networks and might be the only way to get academic partnerships to work effectively. "Networks as lines" can obviously be led by hierarchical management, but networks between people or organizations are more of a question of cooperation and collaboration. Arguably, the best way to describe the elements of collaboration is through social, structural, operational, and strategic elements (Vesalainen, 2002).

This paper aims to subjectively review some papers and generate some words on the topic of its title. It does so to celebrate the works of an important academic professor known particularly for his insights on entrepreneurship, networks, and interfirm collaboration. In addition, the paper develops, describes, and tests a non-scientific method for shaping highly subjective literature reviews that do not fulfill even the basic standards of scientific knowledge. The method is certainly not a reflection of the celebrated professor but merely a practical solution to overcome the author's own white paper syndrome. Hence, instead of making an important theoretical or academic contribution, the article contributes mostly as entertainment, albeit probably even this value is limited to a rather small group of individuals. Far more importantly, the article highlights the value of a good PhD supervisor and the lasting impact that they can have on the development of science, people, and the world. However, first and foremost, this paper is a rather

complicated way of saying: Thank you, Jukka, you have made a big positive difference to my life!

The rest of the paper is structured as follows. In the following, we introduce the very much non-scientific method for conducting this study. That is followed by some random insights derived and some final words about contribution and conclusions.

Pragmatic review with random selection, interpretation, and analysis.

The systematic literature review methods suggest rather complex and laborious procedures for conducting a literature review well. Therefore, this paper opted for a pragmatic keyword search based on the fundamental premises of this book. The search string consisted of just simple variations of "Vesalainen" and was conducted using Google Scholar. Consequently, the profile of 'Jukka Vesalainen' serves as the sole source of articles for this review. Now there is a more than minor risk that this search strategy might overlook some research, and hence bias the results. Nevertheless, to emphasize the practical relevance of the approach, this was deemed both justified and practical as it is unlikely that this book will ever be read by many to whom this would matter. The readers will immediately understand the limitations of the chosen approach.

This review is conducted using an entirely novel and innovative method called a pragmatic literature review. The method was applied in several steps. The first step is a careless promise to write a chapter for a book that celebrates a professor whom one values highly. Second, the white paper syndrome appeared, followed by a desperate search for the red thread for writing. Third, nothing happens for months, except for the nagging feeling that one promised to write something. Fourth, I conducted a simple Google Scholar search for Vesalainen-related papers as described above. If a full paper was not available without engaging in complex procedures, I just included the abstract. Reviewing the books of Vesalainen would probably have been a much better choice, but I believe that many people have actually read those excellent books, so reviewing them would not be very contributive. Those books actually have had a significant impact on Finnish businesses and also MSc and PhD students, so I am sure they are sufficiently covered elsewhere, and even within this celebratory book. I also excluded some early co-authored works from the review and ended up reading only a small portion of the literature.

The method of analysis for the materials is also novel. The random association analysis utilized builds on the idea that innovations are created out of not knowing exactly how to fill the gaps. Here, this was applied as follows. The first stage, a random reading of the selected articles, was conducted. During this process, some 'quite nice-looking sentences' were copied and pasted from the articles to an empty word file. Anything that sounded boring or unimportant was excluded from the analysis. Also, a lot of important stuff was excluded. Thereafter, the creative process of combining these sentences into arguments began. Some words were added to complete meanings. Occasionally, I also returned to the source and collected additional words and sentences. This was repeated until a satisfactory length for the findings section of the paper was achieved. The contributions section was created using the random interpretation as follows. The core concepts were identified and a Google search string carefully created. Looking at the results revealed some novel, but more often quite obvious, connections of thought. These were badly formulated at first and later improved to meet the standards of this book review process. After all, the aim was to create a text that functions as a sign of gratitude, respect, and thanks to Jukka. Hence, I did my best within the time I had for this. While the method is highly entrepreneurial, I did seek to improve it through collaboration. That means that some friends could have read and provided comments for the text but did not really do so. What was obtained though, is a tick in the box stating that this work is not published entirely without peer review.

Findings

Through the analysis described above, I was able to make a surprising number of random associations of things in a short period. Perhaps some things are interesting while some are not; it is all mostly random, as the definition says. Nevertheless, time-conscious readers are advised to skip this part and jump straight to the conclusions. As an example of such random association, reading a paper where Vesalainen and Pihkala (1999) discuss entrepreneurial identities as a multifaceted phenomenon that functions as an important intermediary in different phases of the entrepreneurial process, provoked some thoughts. In 1999, they identified several different types of entrepreneurial identities beyond the singular idea of heroic, growth-oriented risk-takers that remains so much discussed today. This discussion has recently emerged again as some other leading scholars start to call for understanding of the entrepreneurial context (Welter et al. 2019) and the future of entrepreneurship as an activity involving many different people (Kuratko & Audretsch, 2022). Perhaps the general understanding of this issue has advanced, but much remains to be studied.

The paper by Varamäki and Vesalainen (2003) can be seen as one the earliest academic ventures toward studying innovation ecosystems or business ecosystems, the hot topics of academia today. Unfortunately, modern scholars have clearly not bothered to read the work, or indeed cite it.

The main point in the modelling of SME co-operation is that those who plan, promote or build up co-operative arrangements must know right from the beginning what kind of co-operative model a group of firms will strive for, because the prerequisites of successful co-operation are emphasized differently in different types of co-operation (Varamäki & Vesalainen, p27).

This excerpt illustrates a major point that most people still do not get. It takes two to tango and more for a party. You need to agree to the rules of the collaboration, but as with people, firms and their aspirations also differ; they are not the same in all ecosystems or other collaborative relationships. Successful collaboration also builds trust and the confidence to collaborate more, as exemplified in

The empirical examples also suggest that co-operation leads to co-operation, i.e. when a company once joins a net, it is more probable that the company gets access to other nets as well. The basic challenge thus is to get the small or medium-sized company to enter its first co-operative arrangement." (Varamäki & Vesalainen, p27).

Later, Kohtamäki, Vesalainen et al. (2012) also suggest that interfirm relationships perform better if they are more than just words, that is, if firms invest in and pay attention to relationship developments, and create structures that act as platforms on which to develop relationship capital.

The resource-based view also emerges as an important theoretical foundation for partnership and network studies. For example, Vesalainen and Hakala (2014) introduced a novel capability architecture explicating the hierarchical nature of capabilities and imposing some theoretical order onto the terminological clutter of the RBV. The same paper also illustrates empirically how network capabilities fit in and elucidate the different roles of network capabilities in the capability sets. These thoughts are continued in Vesalainen and Kohtamäki (2015) with its suggestion that "Different types of relationship can be considered to be combinations of economic, structural, and social characteristics of business relationships that commonly occur together and form viable types of relationships." In addition, Ylimäki and Vesalainen (2015) underline "the importance of dialogical interaction between the buyer and seller in an emerging community of interest." Moreover, Vesalainen et al. (2020) highlight the important role of purchasers in building relationships between firms.

Vesalainen was also quick to see the effects of digital transformation now so broadly studied. As early as 1999, he sought "to clarify those preconditions that affect the abilities of SMEs to participate in virtual organizations" (Pihkala, Varamäki & Vesalainen, 1999 p. 335), arguing that networks and network capabilities are essential preconditions for successful virtual organizations. Today, virtual organization and digital transformation are widely studied, and Jukka has undoubtedly affected current thinking on the ecosystem-level organizing of digital transformations (e.g., Dabrowska et al., 2022).

Conclusions and contributions

Reading and writing sometimes help to produce ideas and text, but not always conclusions. It is not among the qualities of the random association method applied in this paper to be able to provide academically relevant or rigorous contributions. Therefore, this paper does not contribute to science or scholarship. However, the works reviewed here, hereafter referred to as Vesalainen works do. In addition, Jukka himself has contributed greatly to the development of many students at undergraduate and postgraduate level and greatly supported development among post-doctoral fellows too. While it is impossible to precisely measure this scholarly impact, based on the evidence of a single case, at least the Vesalainen methods of PhD supervision work. This finding is based on the testimony of the author of this paper, who did complete his PhD and has since done okay to achieve a tenured professorship at a reasonably good university.

Great professors also contribute to practice, and the practical impact of science is an enduring subject. The Vesalainen works reviewed here have perhaps been most influential among the industry in the Ostrobothnia-region, but their practical impact also extends to the national and even international level. I have also heard reliable accounts that Jukka has been instrumental in several successful new ventures. I also know that the University of Vaasa developed greatly during his tenure as vice-rector. His Finnish books on partnerships have fundamentally changed the thinking of many executives in the industry. As a post-hoc test for this claim, I also conducted a survey on the WhatsApp platform, which has billions of users worldwide. While the sample of respondents was limited to only a few mates, a unanimous agreement emerged suggesting the most influential Finnish book ever published on the management of networks was 'Kaupankäynnistä kumppanuuteen' (Vesalainen, 2002) followed closely by the "Katetta Kumppanuudelle" (Vesalainen, 2004) whereas the alternatives presented in the survey; such as books by Schumpeter, Marx, and Adam Smith clearly lagged far behind.

Limitations. There are obviously infinite limitations and inaccuracies in this paper and its conclusions. However, it does not matter as I am sure Jukka will understand this text as a big personal thank you. It is true if it works.

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8 PRACTICAL PERSPECTIVE ON NETWORKS

Tommi Ranta

What to write to my professor?

I skimmed through the email curiously time and again. What to write to my professor? Pick your topic and fire away, they encouraged. After a joyful moment of ideas and themes buzzing in my head, I soon realized this would not be an easy task. On the contrary. What to write to your professor, friend, and idol, whose intelligence and extensive knowledge are far beyond my own? What would be of any interest to him? Most intriguing ideas and constellations were soon shot down as unrealistic simply because of my limited experience in science. "Don't ride a moped on a highway," they say. After carefully screening and calculating my options, I decided to stick with what I know best. That would hopefully carry me through the writing process. Nevertheless, the expected length and tone of the text would still require a shedload of creativity and also some verbal yeast, I thought.

This article has three themes, each with a strong connection to Jukka and his research. To keep my feet on solid ground, the article has a strong personal and ethnographic tone. First, I will briefly recap my doctoral thesis on multilateral networks in the context of a local innovation environment. Second, I will describe the Finnish national innovation policy in the twenty-first century and outline the conceptual evolution in policy making. Third and finally, I will recount my career as an entrepreneur and point out some key phases, milestones and strategic choices of my journey so far. My main idea is to summarize lessons learned from a practical and personal perspective in these three sections.

From business relationships to a local innovation environment

Research on business relationships and networks might be seen as farfetched when studying local innovation environments. Nevertheless, Jukka's research findings in the basic elements and anatomy of a business relationship can be adapted to the functions and operations within a regional innovation environment and in regional development in general. In fact, many of the same rules apply; thus, the starting point is quite different.

Completing my doctoral degree in 2011 was a coincidence in many respects. I originally had no plans to continue studying after my master's degree but nor did

I completely discount post-graduate studies. After moving back to Finland and my hometown of Seinäjoki in 2003, I found a temporary project researcher job at the University of Vaasa. The position was only for two months, but I took it. I am still deeply grateful to Elina Varamäki, an Epanet professor at that time, for offering me the job and giving the first push for my research process and my career. During my five months (with three job contracts!) as a project researcher, I read a pile of the most recent research on strategic leadership, entrepreneurship, organization studies, and (inevitably) networks. A natural starting point for me was Elina's own research on multilateral networks (e.g., Varamäki, 2001), Jukka's ground-breaking book on partnership in business relationships (Vesalainen, 2002), and their joint publications on topics including the different types of cooperation in multilateral networks (Varamäki & Vesalainen, 2003). An intensive five-month period gave me some idea that I could do doctoral research on my main interest, the multilateral dimension of networks.

My plans were to change as I was offered a position at Seinäjoki (then Seinäjoki Technology Centre) in 2004. I found myself in a totally different context at the core of regional development. My background in Management and Organizations had very little to do with Regional Science, Geography, and a variety of social sciences, all with distinct perspectives on public governance, regional development, and research. In terms of research-wise, I first came across the extensive research of the Sente research group led by Professor Markku Sotarauta at the University of Tampere.

During the following years, the research of Markku and his colleagues introduced me to new concepts such as leadership in city regions (e.g., Sotarauta, 1999), the innovation environment (e.g., Kolehmainen, 2003; Kautonen, 2006; Mustikkamäki & Sotarauta, 2008; and Harmaakorpi, 2004), and regional development networks (Linnamaa, 1998; Linnamaa & Sotarauta, 2000; Pulkkinen, 2007). I soon found myself completely absorbed in international research on these topics. At the same time, my job was managing a national network focusing on developing innovation environments in 29 city regions in Finland. This network was part of the national Regional Centre Programme coordinated first by the Ministry of Internal Affairs and from 2008 onwards by the Ministry of Employment and the Economy.

In my daily work, I was surprised by the direct and rapid adoption of the findings in scientific research into everyday operations in the city regions. I found that in practice, regional development happens in multilateral networks, with each member of the network having a specific role and making their own contribution to the development. I soon realized that there might be an interesting linkage

between regional development, organization research, and business studies in general. With the help of Jukka and Elina, I managed to build a new structure for my doctoral thesis.

In the first phase of my research, I outlined a framework for analyzing network intensity in the context of a local innovation environment. My framework follows the same structure Jukka introduces in his book (Vesalainen 2002), where the anatomy of the business relationship is split into business linkages (exchange and strategic links) and organizational linkages (structural links and social capital). Some clarifications addressed the multilateral perspective on networks as well as the context of the local innovation environment. The most important aspect is the operational linkage (instead of the business linkage), comprising joint operations and strategic links. As organizations in a local innovation environment do not conduct an exchange or do business as companies do, broadening the concept from business linkages to operational linkages seemed justified.

When collecting the empirical data to support my thesis in 2008, Jukka's method for capturing the level of intensity with the help of Weberian ideal models and theoretical extremes of a continuum proved extremely useful. Since then, I have used the same logic and tailor-made descriptions of the current status on several occasions in consulting cases.

Looking back at my thesis now, I realize that the content and quality of cooperation, each stakeholder's strategic intentions and objectives, and the structures that support and enable cooperation merely set the scene. Social aspects such as interaction, trust, and commitment remain at the very heart of multilateral cooperation. Despite being institutional or organizational in nature, operations in a multilateral network in the context of a local innovation environment take place between humans.

Evolution of innovation policy and concepts

So far, the twenty-first century has been an eventful period for innovation policy in Finland with the tone of a fast-paced conceptual evolution. At the same time, innovation policy has broadened and deepened, impacting practitioners around the country. To sum it all up, all the new concepts in policymaking have sought to capture and describe the growing interdependence between actors and hence the development reality. Network thinking has been implemented in various ways, for example, through cluster development, living labs, innovation and development platforms, and recently, ecosystems. At the same time, public administration and innovation policy have adopted the core ideas of partnership, which are shown in

practice as contractualization, public procurement, investments as alliances, and public-private partnership agreements.

The recent development path calls for capturing the systemic nature of innovation activities. In other words, innovation policy would benefit from a better understanding of the build-up of network relationships and practical examples of implementing a partnership mindset. Innovations emerge and spread through networks. The same applies to the societal impacts policymakers strive to achieve, as they are broad and systemic. The resources and competencies of a single actor are limited, which calls for joining forces with others.

National innovation policy in Finland has been one of the core themes in my work throughout my career. Since starting as an entrepreneur with two of my friends in 2009 (in a company originally established by Jukka), my colleagues and I at MDI have conducted several consulting projects, studies and research on research, development and innovation (RDI) activities, local and regional innovation strategies, and innovation policy in general. One of the firm's first assignments in 2009 focused on innovation activities in northernmost Finland. One of the latest studies completed in 2022 tried to outline the impacts and indicators of innovation ecosystems. In between those two projects, there have been hectic and enthusiastic periods in national innovation policy design, but also times of confusion and lack of ideas on what to do next. This chapter will briefly describe the innovation policy in Finland in general and point out some interesting phases in the key concepts applied.

In a recent article, Laasonen et al. (2020) analyzed the national innovation policy in Finland in the 2000s. The study introduced a two-by-two framework for the analysis of innovation policy. The main dimensions in that framework are the customization of innovation policy (horizontal axis) and the level of innovation policy interventions (vertical axis). From the customization perspective, innovation policy may be general or customized. General innovation policy focuses on the generic and framework conditions for innovation. In contrast, a customized innovation policy is tailor-made to meet the specific needs of certain business sectors or societal challenges.

Moreover, innovation policy interventions may target system-level changes (e.g., taxation or other regulatory issues) or operate at the actor and network level. Finnish innovation policy includes examples from all these perspectives. Nevertheless, Laasonen et al.'s (2020) main conclusion is that "national innovation policy is in a state of confusion" at the moment. From a practitioner's point of view, the most interesting corner in Laasonen et al.'s framework is the customized innovation policy at a grassroots level. Writers call it the facilitative

ecosystem approach, where innovation policy implementation is characterized by customized hands-on governance interventions close to actors of specific economic sectors and ecosystems (ibid.).

Finland has a long tradition of national development programs boosting innovation activities. These programs include the SHOK program (Strategic Centres for Science, Technology and Innovation, 2008–2016) and Business Finland's (formerly Tekes) technology programs (throughout the 2000s). In addition, the Academy of Finland has annually funded basic research and, from 2018 onwards, strategic research with a clearer connection to the identified societal challenges and to the governmental period. The SHOK and Business Finland programs focused mainly on the largest companies, whose markets, supplier networks, and interests, in general, were global. Therefore, these large-scale funding instruments made little, if any, contribution to innovation activities on the local level.

As Laasonen et al. (2020) state, "the common belief in the excellence of Finnish education, research and the innovation system, a highly educated and talented workforce and solid basic structures of society were very strong and key to competing in a globalising economy. The traditional realm of the Finnish innovation policy has been the science and technology push policy, reflected in the steady increase of public spending on science, technology and innovation. The idea has been to strengthen the national innovation system and the capabilities and competencies in global competition." (Laasonen et al., 2020).

In the early 2000s, three national programs played a significant role in implementing the above ideas on a local and regional level. The OSKE (Regional Centres of Excellence 1993–2013), AKO (Regional Centre Programme 2001–2009), and KOKO (Cohesion and Competitiveness Programme 2010–2013) initiatives were all bottom-up oriented and sought to harness the local strengths of the participating regions. They also aimed to provide local actors with an instrument to implement innovation policy on a local level. Therefore, these programs also formed a structure for mobilizing cooperation, initiatives, and investment locally, regionally, and between regions. The whole country benefited from this approach in terms of cohesion, cooperation and collaboration. When the trend and interest in national innovation policy shifted from bottom-up to top-down, these national programs lost momentum.

As a consultant and practitioner, I have witnessed significant changes in national innovation policy. First of all, and as outlined previously, there has been a steadfast belief that increasing R&D expenditure toward 4% of GDP would eventually lead to improvements in productivity, foster innovation and grow income. That belief

also emphasized and encouraged the role of public-sector interventions. The Slush startup event and the global economic boom in the 2010s initiated a change that caused the importance of public-sector funding to decrease. Finnish startups have announced receipt of seed and VC funding at an accelerating pace in recent years. This development has significantly changed the private capital market, especially for startups.

Second, the traditional linear model for innovation (science push vs. market pull) has become more dynamic with new nodes, relations and constant feedback loops. Actually, the Finnish STI push model was challenged through the first national innovation strategy launched in 2008 (some critics say it was also the last). Nevertheless, the 2008 innovation strategy emphasized the role of users and especially practice-driven innovation policy. That emphasis shifted the focus to problem-solving occurring in real-life contexts and situations. Lately, this perspective has evolved as a transformative and more systemic approach to societal challenges (e.g., climate change, preserving biodiversity, and an aging population). Resolving these challenges requires simultaneous and parallel actions from all institutions and states globally.

Thirdly, innovation policy and its terminology are evolutionary. Finnish innovation policy and national policymakers have been keen to introduce new concepts now and then. Sometimes new concepts have been introduced before the actors have even adopted the previous one. To me, the starting point in innovation talk is the innovation system which includes all the national institutions constituting the framework and prerequisites for research, education, economic renewal, and innovations. The first publications emerged in the late 1980s, and the concept of an innovation environment, which emerged around the mid-1990s, brought the systems approach to a local level. Simply put, the innovation environment may be seen as a local development network consisting of all relevant stakeholders. Nevertheless, a local innovation environment might be company- or sector-specific, and therefore there might be a wide variety of innovation environments in the same location. The concept of the innovation environment is close to the innovative milieux (popular in the late 1980s and early 1990s), which emphasizes interaction between local actors and the social dimension in general.

In the history of Finnish innovation policy, the concepts of innovation systems and environments evolved into innovation clusters, innovation concentrations, innovative cities, and, most recently, innovation ecosystems. All of these concepts sought to capture the dynamics of innovation and where public intervention would be most effective. Unfortunately, not all these concepts have endured in practice long enough to be analyzed thoroughly.

The current governmental program (Osallistava ja saliva Suomi, 2019) involves massive input into building billion-scale innovation ecosystems that are world-class in every aspect. Nevertheless, far too little attention has been directed to analyzing and understanding the core idea of an ecosystem and what new things (if any) it brings to the practical implementation of the innovation policy itself.

Our recent study tried to build a framework for analyzing the impacts of innovation ecosystems (Laasonen et al., 2022). The starting point of the study was that innovations emerge as a result of multidisciplinary and interdisciplinary cooperation between numerous actors. These entities are called innovation ecosystems and are built on the interdependent relations between different actors involved in innovation activity. Innovation ecosystems are usually referred to in the context of the emerging interdependencies between companies and their subcontracting networks, customers or end-users, research actors, the public sector and, for example, investors (Laasonen et al., 2022).

Measuring the direct impact of an innovation ecosystem turned out to be impossible. That is perhaps not a great surprise. Working with ETLA Economic Research, we conducted a thorough statistical analysis of the available data but could not identify causal links. We did, however, observe a strong correlation between participation in innovation ecosystems and successful innovation activity. Moreover, innovation ecosystems seem to aim for wider, more comprehensive and systemic impacts. Therefore, we suggest that "the assessment of innovation ecosystems must be based on the impact paths set by each ecosystem itself. From the perspective of innovation policy, the impact paths should be viewed from the perspective of the wider societal impacts they generate." (ibid).

Hence, an ecosystem emphasizes the relationships and interdependencies between organizations and institutions that participate in innovation activities. The ecosystem functions as a whole—a change to one part of the ecosystem affects the entire ecosystem. This brings us to my doctoral thesis and Jukka's findings on business relationships and networks. The core of the concept is the relationships and interactions between network members. The same rules apply.

Making business based on network research

I never planned to become an entrepreneur. In fact, it was never even an objective when starting my career. Luckily, I found the courage to take the leap with Jukka, Jarl Matti Anttila, and Anssi Uitto. Looking back to where we started and what kind of choices we made along the way, it is a relief to realize how much we have gained from academic research in general and Jukka's research in particular. The

anatomy of a business relationship, networks, measuring methods, trust, the learning organization, strategic orientations, competencies, and core capabilities are just some examples of Jukka's research topics, and they have all played a significant role in my career as an entrepreneur.

Our first company, Management Design Intelligence Ltd, was founded by Jukka back in 1987. Jarl Matti, Anssi, and I bought a majority shareholding from Jukka in 2008 and planned to start business operations at the beginning of 2009. Our plan was twofold: 1) selling consulting projects to manufacturing companies who wanted to develop their supplier relationships and network, and 2) selling research, evaluation, consulting and strategy processes to the public sector related to regional development. Obviously, it was Jukka's Partnership Monitor at the core of the first set of projects which included buyer companies like ABB, Wärtsilä, Ponsse, Normet, and Prima Power, and a large group of their suppliers and subcontractors. The latter group of projects dealt with the innovation environment, program evaluations, and minor studies and consulting on various subjects. During the first three years, we managed to deliver high-profile projects on both sides. It is clear that we would never have managed to get things up and running so smoothly if Jukka had not been there to support us. His presence lent essential credibility to us novices.

After three years, new opportunities opened up, which led to two spinoffs from the original MDI. In April 2012, MDI Public Ltd was launched with Janne Antikainen as Chair. The new MDI focused purely on public-sector consulting projects. About a month later, Jakamo Limited was established based on an R&D project initiated by the original MDI and continued as a company in its own right. Both companies started along their own paths.

Jakamo was originally set up to handle and manage the numerous development ideas and tasks that arose from a typical Partnership Monitor consulting case. In one of our main projects, 11 business relationships resulted in 175 development tasks that were hard to manage and monitor. The whole idea of Jakamo was based on Jukka's idea of a company at the center of its own network. Jakamo provided a platform for network management. Intensive development work was rewarded in 2016 when the U.S. Patent Office granted Jakamo's founders a patent for a "method, system and apparatus for network management based on business relationship information" (US 9,350,740). I cannot say for sure, but I assume there are few U.S. patents granted for ideas that have their roots in research on strategy, business management, and networked value systems.

The original MDI has operated in the field of regional development and public sector management for over ten years. One of the firm's key success factors has

been the ability to form partnerships with other companies, universities, and research institutions. The context of regional development includes a variety of themes and subjects, including program-based regional development, employment, immigration, strategic land use, housing and traffic, climate change, and the municipal economy. Therefore, we are constantly analyzing our own resources and expertise as well as operation models and processes and building partnerships with other organizations to win tenders. The winning combination is complementarity in expertise and similarity in ways of doing business. Instead of stubbornly trying to do everything in-house, we are keen on sharing work and responsibilities with partners on a win-win basis. I believe this approach has contributed both resilience and opportunities for learning and growth.

I'm roughly halfway through my working career; assuming I will retire someday. Regardless of what working life has to offer, I am sure Jukka's clear and practical thinking will help me along the road.

For all this, I am grateful to you, Jukka.

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9 DYNAMIC ORGANIZATION OF CELLS - CASE JAKAMO

Jarl-Matti Anttila

Introduction

The only moment a person can live in is the current moment. Yesterday cannot be lived again, and tomorrow cannot be lived in advance. You can only live and be present right now, and life happens in just this moment too. This is why work should be meaningful for each employee in the organization every single day. Meaningful work became Jakamo's main driving value in designing an organization to support customer value creation and sustainable growth.

Professor Jukka Vesalainen is the person who has been most influential in teaching me to become a professional in the area I work in. He set the ground for my professional inspiration and motivation to engage in continuous learning. I was deeply inspired by his concept of managing dyadic business relationships and his approach to business network management. He was my thesis supervisor, we have worked together, but most importantly, we have had hundreds of colorful, respectful, and deep dialogues. In the professional world, he has always been my father, and in the real world, he has become my lifelong friend. I could not be more thankful for Jukka.

This paper concentrates on the latest inspiration that I have had on my desk – *The dynamic organization of cells*. Actually, it has been an interest for nearly ten years, but in 2021 we started to implement it in our company – *Jakamo*. Jakamo is an SaaS company providing its own product, a supplier experience platform designed for manufacturing companies. Jakamo's mission is to connect enterprises, systems and people in the manufacturing ecosystem and inspire humanity both in the digital and real world. Our vision is to become a talent magnet delivering a true supplier experience as the industry standard for manufacturing companies. Jukka Vesalainen is one of the founders of the company, and the company's philosophical DNA leans on his pioneering findings in organizational research. Jukka has been my and our coach in this organizational innovation journey as well.

Self-Determination Theory as the basis of our organizational model

Over the years, we have been shopping for ideas of great organizations, organizational cultures, and organizational behaviors. We have read and heard

many success stories and had discussions with several organization researchers and experts. The dream has been to build an organization that best fits our values and, at the same time, supports significant sustainable growth. We had plenty of ideas but not a solid basis for our ideas.

In autumn 2021, I had a long and inspiring dialogue with Jukka and his wife Professor Riitta Viitala. We discussed how the rapid change in the business environment would alter the nature of work, and how work is done. The change is real, and includes employment design being renewed, self-organizing increasing among individuals, the form of working becoming more diverse, the ability to learn being emphasized, people seeking meaningfulness in their work holistically, and sustainability becoming a driving value (Viitala, 2021). Riitta also encouraged me to explore *Self-Determination Theory (STD)*. That was a big gift because I immediately knew that we had found the basis for building both our organizational model and culture.

Self-Determination Theory represents a broad framework for the study of human motivation and personality. Conditions supporting the individual's experience of *autonomy*, *competence*, and *relatedness* are said to foster the most volitional and high-quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity. If those three basic psychological needs are satisfied on an ongoing basis, people will develop and function effectively and experience wellness, but if they are thwarted, people are more likely to experience illness and sub-optimal functioning.

Motivation concerns energy, direction, and persistence and leads to intention and activation. Motivation is highly valued in the real world because of its consequences (Ryan & Deci, 2000). The STD is an approach to human motivation and personality that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation (Ryan, Kuhl, & Deci, 1997). Its arena is the investigation of people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes (Ryan & Deci, 2000).

As mentioned above, STD presents three basic psychological needs that motivate self-initiated behavior. The universal needs are autonomy, competence, and relatedness. All three are essential for achieving individual psychological health and well-being, and meaningfulness in work. Ryan and Deci (2000) state: "*The fullest representations of humanity show people to be curious, vital, and self-motivated. At their best, they are agentic and inspired, striving to learn; extend themselves; master new skills, and apply their talents responsibly.*" This is exactly

what we believe at Jakamo as well, and the foundation for our culture and organization is built on this assumption. The following sections show how those three cornerstones are adopted in the real life of Jakamoers.

Figure 1. Basic Psychological Needs (Deci & Ryan).

Autonomy

A person who has sufficient autonomy at work feels an overall freedom of internal will. That fosters self-initiated motivation, which is far stronger than the control motivation established by telling a person what to do. Obviously, the concept of autonomy requires increased trust and power in decision-making. If the company would like to act fast and smoothly, all employees should have an opportunity to make decisions autonomously. So, the key challenge is how to increase trust.

When making decisions autonomously, it is important to feel safe. That is why we adopted *the guidance process* for decision-making. The guidance process has three questions. First, an employee can take a decision autonomously if that decision fits with the company strategy and targets. Second, if the decision affects a colleague's life and third, if some colleagues have domain knowledge about the topic, then it is advisable to ask others' opinions.

We also decreased *the scale of objectives*. Anyone in the organization can be a leader or responsible for a topic that creates value for the customers. We decided to erase silos and coordinate the work by replacing the old teams with dynamic self-organizing cells. This coordination model offers all staff opportunities to take on the leadership of various objectives.

Competences

In Jakamo, we believe that talented people like what they are doing. That is why every employee should do things at which they are talented. Buckingham (2022) points out that it is time to start designing jobs that can be loved. It is important to ensure that work inspires commitment and well-being among people rather than exhausting them. Then staff will create better products and services for customers and make a greater contribution to society.

Employee's competences can be approached as a whole and it is important to find different ways to use the competences in the whole company, not only in one team. This gives multiple options for *meaningful employment design*. The motivation of the employee is higher, and the value established for the customer is higher. Both the employees and the customers win. Jakamo's organization model, which is coordinated through the dynamic self-organized cells, supports this requirement perfectly.

To ensure that our employees understand their own strengths even better, we adopted a method to analyze *inherent personal strengths*. Every person has inherent strengths. Strengths are things we are interested in and motivate us. Natural strengths are the models and characteristics of thinking, doing, influencing and working with people, in which a person naturally succeeds well and which they enjoy and are energized by using (Lammi, 2020). People are happy to use their inherent strengths in their work if there is sufficient room.

Strengths differ from learned knowledge and skills in that they are inbuilt qualities (Lammi 2020). Everyone at Jakamo is allowed to evaluate their skills with the help of an expert in the area. When a person understands their own natural strengths, it is easier for them to focus on familiar objectives and create routines for objectives that are not so enjoyable. The effect on self-initiated motivation is tangible.

Utilizing personal strengths and competences leads to positive experiences which enhance motivation. Naturally, it also multiplies the positive results and increases the positive feedback from your co-workers and customers. To take full advantage of *positive feedback,* we agreed on a code to always accept colleagues' bragging. Deci (1971) found out that the unexpected positive feedback increases intrinsic motivation, meaning that positive feedback fulfilled people's need for competence. This has a direct positive influence on overall well-being and meaningfulness in work.

Relatedness

People are motivated when they understand the causality of their work. It is important to have a clear understanding of how the work helps our customers, our company, our society, our planet, or our colleagues. People are eager to help each other when they understand what kind of benefit they just provided for someone. Obviously, it is important to nurture good connections and lively dialogue between co-workers.

In Jakamo, the self-organizing cells support this topic as well. When employees work in different groups, they become more aware of how the company is creating value for the customers and for each other. They also interact with more co-workers. It is surprising how the coordination model can affect relatedness, isn't it? But it obviously does!

Organizational dialogue supporting the employee experience

Once the forum for dialogue was in place, we also established a code for *organizational dialogue*. The code follows three cornerstones with guidelines: *listening*, *respecting*, and *voicing* (Heikkilä & Heikkilä, 2000). These cornerstones were set to energize the employees, accelerate learning in the organization, and build employees' self-esteem. And obviously, all these values lead to exceptional employee experience, which delivers added value for customers and growth for the company.

Figure 2. Adopted organization dialogue model.

When having a dialogue, we are committed to concentrating on listening to each other. Listening is a multidimensional practice. It requires commitment and constant attention. Concentrated listening shows respect for each other but also enriches individual creative thinking. It is important to clear away distractions like phones and laptops and focus attention on the person speaking and maintain eye contact. Paying proper attention makes it possible to observe non-verbal cues and body language (Zender & Folkman 2016).

Respecting means that we concentrate on understanding different approaches instead of immediately looking to criticize other opinions. Respecting means listening without judgment. Respecting is the most difficult part of the dialogue, but it enables exposure to the unpredictable and creates an opportunity for innovation. Zender and Folkman (2016) describe how good listeners can create a safe environment in which to discuss difficult, complex, or emotional issues. In addition, good listeners never hijack the conversation to make themselves or their issues the subject of the discussion. Joel Peterson (2015) state in his interview: "*You can't have an agenda. When you have your own agenda while you're listening to someone, what you're doing is formulating your response rather than processing what the other person is saying*."

When listening and respect are happening, and everyone feels the right to have their own approach, it is safe to use your own voice. Voicing enriches the overall understanding and enables us to establish a wider shared view. Voicing opens an opportunity to ask further questions and clarify assumptions that the other person holds. It helps both to see things in a new light.

In Jakamo, we have a common *strategy workshop* with the whole staff twice a year. That is a forum where we all can discuss our general purpose of existence, our values, our dreams, the forms of excellence we are targeting, and our half-year common goals. It is a place to develop our common "duck pond," establish trust between people, share ideas, and learn from each other.

The hidden codes supporting the culture

Because self-governing cells define their own ways of working and organizing the work autonomously, we wanted to have some commonly agreed codes and rules that apply organization-wide.

1. *Accept the bragging code* → When someone is boasting, always accept it. If you reject bragging, it does not feel good for the person who just boasted to you.

2. *The bad news is good news code* → When something negative happens, always speak about it. That is the only way to get help to fix the problem and learn collectively about the mistakes made.

3. *Car code* → We do not celebrate or criticize anything before we are in a private space.

4. *No-Cursing code* → We want to speak in a professional way with our customers and other stakeholders.

5. *NDA code* → We want to act in an extra secure way because we are dealing with confidential information.

These hidden codes are more or less values that guide us to behave in a kind and professional manner. The codes are seen more as a mechanism of bonding with the culture in a positive way, not as rules of control imposed on employees. There are not so many codes, but we have agreed to follow the codes strictly.

A customer-centric organization model

The customer at the center of the organization chart

It is often possible to hear and read declarations from directors and leaders that "*we are a customer-centric organization*." That is a typical mantra that managers must repeat but it often does not reflect reality. We decided to be honest with ourselves and our customers, therefore the foundation and heart of our organization structure is the customer. In other words, to ensure we fully concentrated on a customer-centric way of working, we put the customer at the center of our organization chart.

The next challenge was to decide how to define the division of work. Every SaaS-product company has R&D, production, marketing, sales, product delivery, and support departments. The departments are often represented in a Porterian style as silos arranged horizontally next to each other. The customer then awaits a perfect product at the end of that perfect chain. The model can work in theory or standard mass production operations but definitely will not in a continuously developing SaaS-product business context.

We ultimately defined our division of work through the value streams we deliver to our customers. So, we answered these two questions:

1. What forms of excellence do we deliver to our customers?
2. What kind of value streams can be formalized for those forms of excellence?

Our finding was that we have a wide understanding of the industry-specific business environment and the needs of the target segments, and we are delivering outstanding proposals for the customers. These forms of excellence are covered in our *Sales and marketing* value stream. Our second value stream is *Product delivery and support*. The forms of excellence for that value stream are: fast and smooth product delivery, technical implementation and supplier onboarding are based on excellent documentation and open communication with the customers. Our most tangible value stream is our user-friendly, fast, and secure *Product (and production)*. The forms of excellence in this value stream are the best fit for purpose, solutions designed for manufacturing companies, and exceptional connectivity capability.

Answering the above questions helped establish three value streams for our customers. Defining the division of work became easier after we put the customer at the center of our organization chart. Furthermore, this design ensured that we had three different value streams directly connected to the customer. They are not in a horizontal row anymore. Now the value streams surround the customer and are closely connected; Product & Production with Sales & Marketing, Sales & Marketing with Product Delivery & Support, and Product Delivery & Support with Product & Production.

Figure 3. Foundation of the customer-centric organization model. Value creation as the basis of the division of work.

Once the customer value streams defined the division of work, we had to establish how they could be supported to deliver their full potential. To fulfil that need, our Chairman of the Board, Matti Manner, advised us to identify two important stakeholders that the organization should deliver value to; the employees and shareholders. So, we decided to add two more value streams. The *soul value stream* was established to offer our personnel an exceptional employee experience. The target is to become a talent magnet that offers motivating employment, an inspiring work culture, a respectful work-life balance, and a working environment geared to fully utilizing personal skills. The *company value stream* was established to take care of the value created for shareholders, society and other stakeholders. The target is to achieve significant growth, which was one of the driving values for the employees in the first common organization-wide strategy workshop. Second, the company value stream takes care of the planet and society by ensuring significant sustainability improvements for our customers utilizing our product.

Figure 4. The soul and company value streams surrounding the three customer value streams.

Coordination of work through dynamic organizing cells

Once the division of work was defined by the five value streams, we needed to decide how to coordinate our work. The easiest way would have been to organize the personnel as five teams based on the value streams and nominate a Team Manager for each value stream. Instead, we nominated Stream Leaders for each

value stream. Stream Leaders do not have a team but take responsibility for achieving the targets set for each value stream in the common strategy workshop.

There were two major reasons why we did not want to coordinate the work using traditional teams. First, a person locked into one team is probably not fully utilizing their complete skill base and set of inherent strengths. That situation can tremendously undermine work motivation. We wanted to see every employee as a whole person, offer multiple adoptive roles in the organization, and design the work to fit their strengths and skills. Second, we wanted to demolish the traditional leader-member hierarchies and enable leadership for every employee. This ensured decision-making too was context-based.

We adopted a dynamic way of coordinating the work inside the value streams. The work is now coordinated by self-governing cells. Each cell has its purpose and targets. Each cell plans its work autonomously. After six months, there were around 30 active permanent and temporary cells. One person can work in various cells. The approach offers the opportunity for a huge variety in personal employment design. The employees can work in multiple value streams or concentrate on one niche. Both options and everything in between are valuable to the customer, for the company, and especially for the employee.

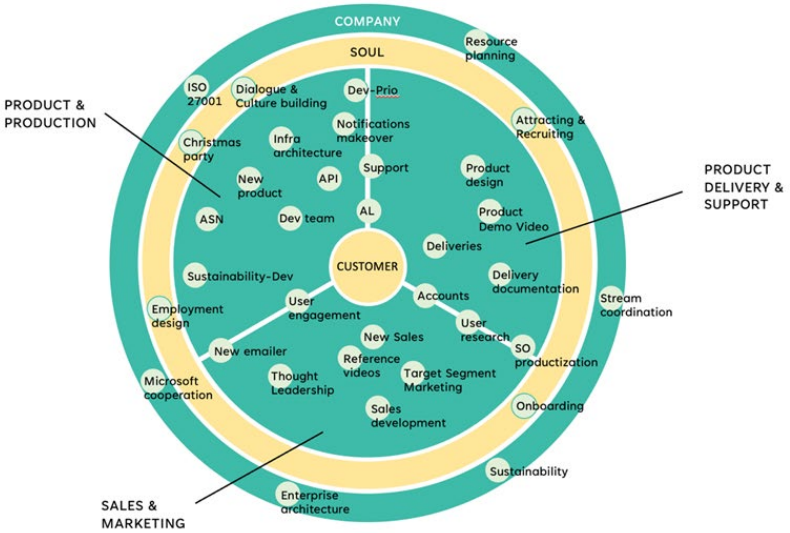

Figure 5. Self-governing cells coordinating the work inside the value streams.

Humane and understandable strategy

Nurturing context-based and rapid decision-making requires all employees to be familiar with the company strategy. Our target was to make the strategy as humane and understandable as possible. Kilpinen (2022) writes that a humane strategy requires continuous dialogue, and the dialogue requires psychological safety to keep the conversation open. Therefore, in Jakamo, all employees participate in strategy planning twice a year in organization-wide strategy workshops. Kilpinen built the humane strategy concept on four elements, all of which feature in Jakamo's model: empowering purpose, capabilities to execute, strong relatedness, and clear goals and targets.

The strategic targets are set together, and the metrics are tracked in monthly meetings of the whole company. So, there are two forums for employees to participate in company strategy development: strategy workshops and monthly meetings. The work itself is coordinated through the self-governing cells, which create their own routines and ways of working.

Kilpinen points out that leadership under a humane strategy is different than in traditional strategies. It is not about controlling or assigning work tasks or monitoring. Leadership must resemble coaching. The leader must ensure the employees are doing well and know the priorities, company strategy, and direction to go.

Democratized leadership model and coaching concept

So, the next question was: Who will support an individual employee with multiple roles and who works in multiple cells without a team leader? This was where we wanted a make a true difference. We did not want to approach the leader-member issue from the usual company point of view with the feeling that management controls the employees. We wanted to democratize leadership, approach all employees as intelligent people, and see them as whole human beings. We decided to approach the issue from the employee's point of view: We created a *coaching concept* where the employee is the center of attention.

Jakamo's coaching concept provides every employee with their own coach. The coach for an employee is not assigned top-down; every employee can choose any willing Jakamo colleague as their coach. This is crucial because the connection and chemistry must be right to encourage productive dialogue between coach and employee.

The coaching sessions are arranged four times a year. The employee is responsible for booking the session and deciding how it should be executed. Many employees decide to have the discussion during a long walk or over lunch. Anything is possible. The environment should be informal and relaxing, just like a fire-side discussion.

The coaching dialogues focus fully on the employee. Booking a coaching session is easy using an employee experience solution called *Humbol*, which also facilitates preparing for the session. That involves employees grading and answering a mix of 12 statements and questions in advance to ensure they are well-prepared. The statements and questions are:

1. My well-being at the moment (0= very poor, 100 = excellent)
2. My work-life balance at the moment (0= very poor, 100= excellent)
3. My work is meaningful to me (0 = strongly disagree, 100 = strongly agree)
4. I feel that my work creates value for the customers and community (0 = strongly disagree, 100 = strongly agree)
5. I feel that I can work at an optimal autonomy level at the moment (0 = strongly disagree, 100 = strongly agree)
6. The organization utilize my skills widely (0 = strongly disagree, 100 = strongly agree)
7. My impression of my personal performance at the moment (0= very poor, 100= excellent)
8. I get enough support and feedback from my coach and colleagues (0 = strongly disagree, 100 = strongly agree)
9. Where do I want to succeed personally during the next six months? Write at least two specific goals (open field)
10. How can my colleagues support me in succeeding with my personal goals?
11. What would improve my employee experience? Write at least one specific thing
12. What is my driving Northstar and dream of the future?

The statements and questions are graded and answered a few days before the coaching dialogue to ensure that the coach also has time to prepare. The goal is to provide the employee with a meaningful conversation which is helpful in several ways. It is important that the employees feel confident to talk about 1) well-being, 2) areas they want to succeed in, and 3) issues they hope to get help with from colleagues.

Coaches have an important role when employees set their own targets and goals. The coach does not assign any targets but helps the employee to set realistic targets and goals. It is not unusual for people (especially those who are highly motivated and can act autonomously) to set unrealistic targets. Furthermore, if employees also feel their work is meaningful, the coach should be aware of the risk of unrealistic targets and burnout.

Summary and early results

Jakamo, as a company, is targeting significant sustainable growth. The company has achieved around 50 % revenue growth for four consecutive years. The staff has grown 150 % during the last two years. In autumn 2022, the Meaningfulness Index of Jakamo employees was 88 / 100 for Relatedness and 81 / 100 for Self-actualization (autonomy & competences). During 2021–2022 Jakamo's churn rate of enterprise customers was 0 %.

These figures and future targets cannot be achieved without high-performing, persistent, and creative employees who are eager to develop themselves, take responsibility for decision-making, act with passion, function effectively, help each other, and experience wellness. Self-Determination Theory gave us a framework to build a scalable organization model to foster those qualities.

Our common journey of friendship and learning with Jukka started in the 2000s. For me, it has covered a wide range of approaches within organization research; from Network Management to Strategy Processes, from Transaction Cost Theory to Self-Determination Theory. At the beginning of this joint journey, I could not have imagined how inspiring it would become. I am looking forward to continuing that journey filled with respect, thankfulness, and joy!

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10 FROM PARTNERSHIP TO FRIENDSHIP

Jari Lehtineva

This is not a scientific article; this is the story of how a partnership can turn into a friendship.

Partnership monitor

In the autumn of 2000, a research project was launched to find out what is meant by a partnership between two companies and what kind of partnerships exist in the Finnish metal and electronics industry. Partnerships were already much discussed at the time, but perceptions of a partnership and the terminology employed varied significantly.

The main outcome of the project was a Partnership Monitor tool that measures the depth of the partnership between companies. The Partnership Monitor features an extensive set of questions answered by both the customer and the supplier. The theoretical extremes—a market-based relationship and a partnership relationship— are defined for the partnership. The tool can thus measure the depth and nature of the relationship. Nevertheless, it was also interesting to obtain information on how far apart or close the partners' views on the relationship were.

TietoEnator and Partnership monitor

At that time, I was working at TietoEnator and leading the Integrator team in our manufacturing business. TietoEnator's manufacturing business had been built from the beginning with outsourcing at its core and we had several large customers who outsourced their IT operations to us. We organized our customer operations by individual customer, and an Integrator (Key Account Manager) was responsible for the whole customer relationship.

At the time, my wife worked at Vaasa university and knew Riitta and Jukka. She hinted to me about Jukka's Partnership Monitor project when I was struggling with work matters one evening and was deep in the world of customer relationships.

So, we arranged a meeting with Jukka in Helsinki. He presented the tool to the TE Manufacturing management team. We soon recognized the potential of the tool for

our business. After a short negotiation, we decided to buy the rights to the tool. We had to change the questions slightly to better fit the needs of the ICT business.

We piloted the tool with one customer, which was my responsibility. The customer was positive about the project, and we gathered the first results. Those results set the ground for excellent discussions with the customer and also provided a better understanding of both parties' perceptions of the current status of the partnership, and the expectations for its future. The customer concerned applied the survey to its various units and subsidiaries, which equipped us with a better and deeper understanding of all parties' views.

Following the pilot, the Partnership Monitor was implemented with all the integrators' customers. The feedback from all customers and our own staff was positive, and we were able to deepen our partnership with customers and better understand the expectations and views of the other party. The tool was used in TietoEnator for a long time and in many ways, and it brought new ways of thinking and operating models for building partnerships.

From business partners to fishing partners

I'm afraid to say that in addition to the Partnership Monitor, our wives brought Jukka and I together over a fishing hobby. I have been fishing myself since I was a little boy and as a passionate fly fisherman I found in my late eighties. One day my wife said that Jukka is also a keen fisherman. And so, we found a new topic of discussion, one perhaps even more interesting than the Partnership Monitor! And it may be that in these last years, our wives have regretted this latter discovery of a common hobby. It has taken us far away from home on many occasions over the years.

The first joint fishing session was in the nearby Kyrönjoki Kolkinkoski. Jukka had caught a sea trout there that fall, and in Jukka's own words, he wanted to take me to a "guaranteed fishing spot." Below is a picture of Jukka from that trip. The photo was taken on September 24, 2003. When I sent the picture to Jukka by e-mail, the answer was his typical self-ironic humor: "Strange… style is good, the outfit is good, the equipment is good, but there is still no fish".

So, we didn't catch anything even then. When we recalled that first trip few months ago, we found we have experienced many "guaranteed fishing spots" over the years. Of course, sometimes we have actually caught some good fish too!

Since that trip, we have taken several joint fishing trips. We had a large group at that time, with which we rented Huopanankoski on the opening of the autumn season on 16 November, when the trout's close-season ended. Jukka joined our team in the same year, and since then, we have made joint fishing trips in Finland at least once a year.

In 2015, we decided to make our first fishing trip to the Norwegian fell and since then we have been on trips in the wilderness of Sweden and Norway for about a week a year. And the story continues.

As colleagues

My own career in information technology was at a crossroads at the end of 2013. That's when I mirrored my thoughts and my own future with Jukka as well. I asked Jukka's opinion on some options, and we also discussed if there were any opportunities for cooperation at the University of Vaasa in terms of postgraduate studies or work.

Our discussion took place at the beginning of the week and Jukka said that the following Friday there would be a decision on a big project, and if it went through,

there could be opportunities for cooperation. On Friday, Jukka called and said that the project had been approved. We arranged a meeting for Monday and after a few minutes of discussion, I had become an employee of the Rebus project, and Jukka had become my supervisor.

It was a great time and I got to work with many people with really extensive knowledge and got to learn very many new things. During those three years, I also learned of a whole new side to Jukka that, surprisingly, had not come up in our discussions during fishing trips. This is probably because those discussions were rarely related to science. My wife once asked me after a week-long fishing trip how Jukka was. I had to answer that I had no idea; we were fishing!

But back to Jukka. His skills and scholarship are amazing. He is able to crystallize things and make practical use of his very extensive theoretical knowledge. This often came to the fore when we were planning customer meetings or even in an extempore customer situation, when he was able to pull together the situation and provide a practical solution based on some theoretical model. Jukka has an amazing range of expertise and the ability to put it into practice. And the latter is a very exceptional ability, especially in the university world.

Jukka as a friend

As a friend, Jukka is easy and flexible. He doesn't have strict principles (like I do), but everything is usually always right for him. He is trustworthy and also always ready to help.

Together we have experienced great and sometimes tough trips when nature has treated us badly. However, we have never drifted into dispute, even though fatigue, cold, and wetness have weighed in, or one may have caught more fish than the other (which is always a dangerous situation). Working with Jukka has always been easy and natural, both on trips and in working life.

Now that Jukka and Riitta are also becoming residents of the archipelago, I hope (and the wives are afraid) that our common hobbies will expand in the archipelago in terms of fishing, boating, and others!

Thanks for letting me be your friend!

EPILOGUE

Jukka Vesalainen's research has greatly inspired scholars from various backgrounds. That research has paved the way for thinking about business relationships and partnerships in a new and relevant manner. With his roots in practice, Jukka offered academic society a practice-oriented perspective within partnerships and business network research.

Even after his retirement, Jukka will still be with those of us in the academic community in several ways. His extensive influence on many researchers and professors within academia means his values, views on partnerships, and his research will continue to inspire new studies and insights. This book demonstrates how Jukka's thoughts and knowledge have seeded further knowledge development and contributions within academic society. Jukka's work has inspired research in the fields of servitization, entrepreneurship, and SME growth and development. He has paved the way for studies focusing on digitalization in small and medium-sized enterprises and the digitalization of business networks.

As a person, Jukka himself personifies partnerships. He is a true relationship builder, a great team worker, supervisor and communicator. Whether a student, PhD, professor, practitioner or a guy from the street, Jukka has the ability to approach them all in the right way. In addition, he has the ability to speak about everything in a convincing and influential way. Being open-minded and a good listener gives Jukka the skills to steer people in the most suitable direction. Furthermore, his sense of humor makes cooperation both fun and inspiring.

But now, Jukka continues his journey as an emeritus professor, which is richly deserved, and the rest of us will keep reinforcing his academic heritage. Fortunately, despite his retirement, Jukka will be involved in a research project related to the digitalization of business networks, and thus, we still have opportunities to learn from him and enjoy his wisdom in our community. However, we promise to also give him some time to play golf and enjoy fishing.

Jukka, on behalf of all the authors of this book, we thank you for contributing to our careers and lives. Many of us would not be where we are now without you. We wish you relaxing and enjoyable days in retirement and the very best of fisherman's luck!

Annika Tidström, Anni Rajala & Marko Kohtamäki