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**A Relational View of Horizontal Collaboration among Micro and Small Enterprises:
A Study of the Brewery Sector in Wales**

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Abstract

Purpose – This study aims to explore how horizontal collaboration can help small and micro enterprises within the drink sector through the relational theory lens.

Design/methodology/approach – The use of qualitative research methods, including focus groups and interviews, facilitated understanding the horizontal collaboration in micro and small companies within the Welsh brewery industry. Data collection involved conducting three focus groups and 13 interviews within the Welsh brewery sector in the UK. The collaboration phenomena were explained using the three elements of relational theory: relational rents, relational capitals, and relational governance.

Findings – Micro and small enterprises in the drink sector use collaborative initiatives in building new capabilities to generate relational rents. In addition, relational capitals and relational governance mechanisms were identified to support the horizontal collaboration among these enterprises.

Research limitations/implications – The focus is on only one part of the drinks industry, i.e. the brewery industry; therefore, this study could be extended to other industries within the drink sector or across manufacturing industries.

Practical implications – The micro and small enterprises can collaborate to achieve relational rent, but this collaboration requires strong relational capitals, such as trust. These partners need to change informal governance mechanisms that already exist towards more contractual formal mechanisms.

Originality/value – Prior research has largely focused on vertical collaboration, with limited studies using the relational theory lens to explicate horizontal collaboration phenomena and no previous research in the context of micro and small companies. Relational rents, relational capitals and relational governance mechanisms are studied to provide insights into an effective collaboration in this context.

Keywords: horizontal collaboration, relational theory, small and micro enterprises

1. Introduction

The complex and global nature of modern supply chains means a standalone approach to drive competitive advantage could be difficult and challenging for Small and Medium Enterprises (SMEs) (Cragg et al., 2020). Therefore, they are looking beyond their organisational boundaries, towards collaborating with appropriate partners (Cisi and Sansalvadore, 2019; Pomponi et al., 2015) to gain competitive advantages. Compared to large enterprises, SMEs are constrained by low economies of scale, limited resources and capabilities (Zaridis et al., 2020), limited human, financial and informational resources, and lack of legitimacy (Zahoor et al., 2020). Most extant literature discussing collaboration has concentrated on large enterprises or the next level on SMEs. Specifically, the focus on micro and small firm collaboration is scarce in comparison to large scale enterprises (Granata et al., 2018; van Rijnsoever, Kempkes and Chappin, 2017) despite the fact that the current economy revolves around micro (less than 10 headcount) and small (between 11 and 49 headcount) firms as important engines of economic growth, innovation and employment, with the majority of SMEs being micro firms (Granata et al., 2018). The micro and small firms experience liabilities of smallness which makes them more vulnerable to resource constraints that in turn would affect their competitiveness. These constraints can be in terms of resources, human, physical and economic (Bradford-Knox 2017a).

Micro and small enterprises account for 98.6% of all businesses in Wales (95% enterprises in micro category and 3.6% in small category). These enterprises contribute to approximately 50% of the workforce in Wales and are responsible for over 24% of the turnover (Size analysis of businesses, 2019). The statistics clearly highlight the important role played by micro and small businesses in supporting the national economy and specifically in the drink sector with the emergence of this small-scale craft brewing culture (Parker et al., 2018). In the brewery sector, there is no single business that is listed within the 50-249 employees category, hence all are considered under small and micro categories (Economic Appraisal of the Welsh Food and Drink Sector, 2017). These micro and small breweries are characterised by work in a collaborative/competitive environment, with high exchange of information, and by mutual support (Cabras, 2017). However, there is a lack of understanding as to how micro and small firms in the drink sector perform within their local networks, and how they can survive in a competitive environment (Flanagan, 2018; Granata et al., 2018; Karampela and Waehning, 2017).

The majority of publications investigating horizontal collaboration in small and micro drink and food firms fail to present a comprehensive framework that can address areas of collaboration, and how these should be facilitated and governed (Granata et al., 2017; Flanagan et al., 2018; Drakopoulou et al., 2018; Alonso et al., 2018).

Furthermore, most literature examines vertical collaboration while there is a lack of understanding into how horizontal collaboration can help micro and small firms to gain competitive advantage. The existing research fails to explain how micro and small firms can enable horizontal collaboration practices in the drink sector and, *to address this gap, this study explores how horizontal collaboration can help small and microbreweries to achieve competitive advantage*. Taking a horizontal collaboration approach can enable micro and small firms to respond to external uncertainty; negotiate more effectively with suppliers and customers; and invest in additional joint capacity when not in the position to do so individually. This paper uses relational theory to investigate how horizontal collaboration can help micro and small enterprises to achieve competitive advantages. The theory proposed by Dyer and Singh (1998), and later used in different topics such as collaborative procurement (Walker et al. 2013) or horizontal collaboration in social sustainability (Benstead et al. 2018), provides a good fit with the collaborative arrangements studied in this paper. The theory supports the argument that value creation between firms can be enhanced through collaborative working, since those values cannot be achieved if firms work independently. The three elements of relational theory, namely, rents, capital, and governance, provide structure to our qualitative data analysis. A qualitative method was adopted for this research, including three focus groups and 13 interviews within the drink sector in Wales.

Our findings signify that micro and small firms' structure and characteristics facilitate relational rents generation through horizontal collaboration, but this is affected by the size of the firms involved as firms of similar sizes will have similar power or voice when negotiating terms and conditions for horizontal collaboration. Early evidence of horizontal collaboration between breweries, even those competing for share in local area or geography, was identified in the area that required less initial cost investments, such as joint logistics, sharing production or bottling facilities, and sharing kits that are expensive to afford individually. Similar to practices seen in the large organisation working closely with upstream supply chain partners, our findings also highlight propensity among micro and small firms to jointly develop new products, processes or technologies or share technical knowledge and advice on the brewing process, machinery and testing kits. The preliminary evidence of horizontal collaboration has also led to relational rent generation. Other interesting areas of horizontal collaboration

identified through the coding process were joint wholesale, joint export, and visibility of the national brand. Given that individually they all struggle to understand the process of the export or negotiate with the wholesaler due to asymmetric power, the joint approach to wholesale and export will give more power, voice, and an identity to their brand. Relational rents such as trust, previous experiences, equality, and closeness were identified to facilitate the horizontal collaboration among micro and small breweries. Finally, the informal governance of horizontal collaboration, currently exploited by the enterprises, is recommended to change towards formal mechanisms to avoid any confusion in their responsibilities. From a practical viewpoint, we provide a better understanding of how micro and small firms in the drink sector can horizontally collaborate to overcome their limited resources.

The paper continues in Section 2 by conducting the literature review before explaining our research method in Section 3. Section 4 presents the findings and Section 5 provides the discussion and conclusions, including implications for research and practice.

2. Literature review and theoretical background

As there is limited evidence in the literature on horizontal collaboration in micro and small firms, the authors decided to review papers on horizontal collaboration in SMEs. We pursue how and over which areas they collaborate, how the collaboration can be facilitated, and which governance structures are in place. Then, we focus on papers in the context of micro and small firms and focus on the same aspects to have a clear understanding on horizontal collaboration in the context of small and micro firms with specific focus on the drink sector.

Subsequently, relational theory and its three core elements are discussed in Section 2.2, including relational rent, capital, and governance. Finally, how we relate horizontal collaboration in the context of micro and small firms to different aspects of relational theory is presented in Table 1.

2.1 Horizontal collaboration in small and medium firms

Horizontal collaboration is the relationship between the firms at the same level of the supply chain (Cisi et al., 2019; Galdeano-Gómez et al., 2014). Collaborative arrangements result in internal economies of scale, faster new product innovation, reduced uncertainties due to sensing rapid changes while workers acquire new skills and firms obtain more capital investment with fewer costs (Brink, 2017; Bradford-Knox and Neighbour 2017b).

Most literature related to horizontal collaboration focuses on large companies and SMEs (Zaridis et al., 2020). There are few issues that differentiate SMEs from their large counterparts, which highlights why they need to move towards collaborative partnership to address those issues. SMEs have scarcer resources than large multinational companies (van Rijnsoever et al., 2017); therefore, they need to collaborate in order to benefit from the complementary core competencies, access to joint resources and activities in order to spread costs, information and risks (Vlachos and Gutnik, 2016). Furthermore, they face huge challenges, such as rising R&D costs and high risks and uncertainty in technological development (Del Giudice et al., 2019). The implementation of innovative ideas is more difficult for SMEs because of different limitations, such as lack of knowledge, lack of financial resources, lack of access to appropriate information and advice and difficulties in finding proper business partners (Zahoor et al., 2020; van Rijnsoever et al., 2017; Meiseberg and Ehrmann, 2013) indicating that they must rely on external resources to overcome their liability of smallness (Santoro et al., 2018). SMEs horizontally collaborate in different areas, such as the technology development efforts (Zahoor et al., 2020; Del Giudice et al., 2019). Horizontal collaboration can benefit SMEs to purchase in bulk and reduce costs, internationalise and strengthen market position (Zaridis et al., 2020).

The interaction processes of collaboration in SMEs should be legitimised so that partners are willing to work together and retain collaboration norms (Human and Provan, 2019). There are two governance interim modes: contractual (legally binding agreements) and relational (based on social and cooperative norms) (Bicen et al., 2021). The risk of suffering from several contractual hazards seriously exist in collaboration among SMEs, as some firms may free ride on the investments of others (Mesquita and Lazzarini, 2008). Thus, the creation and nurturing of trust are very important for developing effective and efficient collaboration (Baseh et al., 2020). Relational dimensions, such as communication, and social bond influenced by meta capabilities, such as resource fluidity, have a role in building trust among SMEs (Nyirenda and Freeman, 2021).

2.1.1 Horizontal collaboration in small and micro firms in the context of food and drink sector

Food and drink sector has changed dramatically because of technical and demographic changes over the last decades (Bradford-Knox and Neighbour, 2018). In the agri-food sector, horizontal collaboration seeks to overcome innate resource limitations of SMEs (McAdam et al., 2015). Zardiis et al. (2020) conclude that supply chain collaboration, including horizontal

collaboration, impacts positively on Agri-SME performance. Horizontal collaboration is even more crucial for small and micro enterprises, as they have more limitations in terms of resources (Bills et al., 2021). Small firms are differentiated because of their flexibility and responsiveness towards customer and market opportunities. Furthermore, a unique quality of micro firms is the culture in which everything centres on one person, the owner-manager, responsible for both operational and strategic decisions (Granata et al., 2017). Furthermore, micro and small firms in food sector have been found insufficient in terms of human and financial resources to support and implement food safety management systems (Bradford-Knox and Kane, 2014).

Previous literature lacks studies on horizontal collaboration with a focus on micro and small firms in the food and drink sector. Horizontal collaboration was investigated in the wine micro firms in a case study from France (Granata et al., 2017). Flanagan et al. (2018) employed an inductive approach and explored how small firms in the brewery sector use horizontal collaboration to achieve their goals. Development of hybrid logics and collaborative business models in the Irish craft beer sector was investigated by Drakopoulou et al. (2018) from an entrepreneurial perspective. Micro and small-sized craft breweries in Australia were investigated by Alonso et al. (2018) who found that horizontal collaboration within other brewers helped increase product quality, gain basic knowledge of new recipes, and enhance strategic knowledge about the industry.

Collaboration in micro and small breweries and wineries can lead to innovations in operations, procurement, and firm infrastructure; improve operational efficiency in procurement and inbound logistics and promoting joint events (Flanagan et al., 2018; Drakopoulou Dodd et al., 2018). However, while Flanagan et al. (2018) reported little evidence of collaboration in new product development among micro and small breweries in a sample from the USA, Drakopoulou, Dodd et al. (2018) reported creation of colab-brews among micro and small Irish beer producers. Dennett and Page (2016) raise the issue of economies of collaboration, meaning that equipment, ideas, knowledge and customers can be shared between the brewers for the benefit of all. Furthermore, collaboration among micro and small breweries can be on products, to add variety, and collective effort in terms of supplies and equipment purchasing. The system of “swapping” in terms of casks or ales is a good example of collaboration (Danson et al., 2015).

Collaboration can specifically help micro and small breweries to provide a supportive environment to offset the fragility linked to them, with trust as an important pre-condition for a successful collaborative partnership. Trust is a complex multidimensional and dynamic

concept (Kottila and Ronni, 2008) in which lack of it between companies could negatively impact the collaboration outcome (Hanna and Walsh, 2008), while its presence in the collaboration can reduce uncertainty (Bradford-Knox et al., 2016). In micro firms of the wine sector in France, Granata et al. (2018) concluded that competition and collaboration could create a paradoxical situation, specifically in micro firms which depend on a single person, the owner-manager.

More literature discusses the ethos of informality of governance in micro and small firms in the drink sector (Drakopoulou Dodd et al., 2018; Flanagan et al., 2018). However, few mention that formalisation can also occur in micro firms. Granata et al. (2018) concluded that the formalisation of a collective governance structure in micro firms in the French wine sector enabled the setting of production standards and legal rules to use and promote the collective brand.

Having explained the need for horizontal collaboration in micro and small firms, in the next section we explain the theory that we selected to frame our research, which is relational theory, to understand how collaboration helps micro and small firms to achieve comparative advantage.

2.2 The relational view

The relational theory, proposed by Dyer and Singh in 1998, assumes that inter-firm networks may be more efficient arrangements for achieving a resource based advantage than single firms. Therefore, there is a good fit between this theory and the collaborative arrangements (Walker et al., 2013).

Few studies about collaboration have referred to relational theory in the context of horizontal collaboration (Walker et al., 2013; Touboullic and Walker, 2015; Benstead et al., 2018). However, to our knowledge, this is the first study to make relational theory central to horizontal collaboration in small and micro enterprises.

There are three crucial elements to relational theory which are: relational rents, relational capital, and governance. Walker et al. (2013) define relational rent as “*an advantage generated collaboratively in an exchange relationship that cannot be generated by either organisation in isolation and can be created only through the joint idiosyncratic contributions of the specific collaborating organisations*”. Governance mechanisms are tools to ensure that the partnership is functioning continuously. It has been considered in both formal and informal mechanisms. Formal governance mechanisms may consist of third-party enforcement, usually through contracts as well as self-enforcing mechanisms related to economic hostages, such as equity

participation or reciprocation, while informal governance mechanisms are effective, self-enforcing means for governing partnership, relying heavily on intangible assets, such as trust, organisational and individual reputation (Hahn and Gold, 2014). Finally, “*Relational capital refers to the level of mutual trust and friendship that arises out of close interaction at the individual level between alliance partners*” (Kale et al., 2000, p. 218) which can be expanded to relationship history, communication, commitment and the role of absorptive capacity (Benstead et al., 2018). In Table 1, we present the main themes and sub-categories that are derived by synthesising the literature on horizontal collaboration in micro and small firms and relational theory.

Table 1- Summary of deductive themes from literature

Coding theme (Main)	Coding theme (Subcategories)	Literature on horizontal collaboration in small and Micro firms	Lit. on relational theory and horizontal collaboration
Contribution to relational rent	Resource sharing	Drakopoulou Dodd et al. (2018) Alonso and Bressan, (2017) Alonso et al. (2018)	Benstead et al. (2018)
	Knowledge sharing and expertise	Flanagan et al. (2018) Granata et al. (2018) Alonso and Bressan, (2017) Drakopoulou Dodd et al. (2018) Alonso et al. (2018)	Benstead et al. (2018) Walker et al. (2013) Touboulic and Walker (2015)
	Joint selection of goods and services	Drakopoulou Dodd et al. (2018)	Walker et al. (2013)
	Joint creation of new products, services, and/or technologies	Drakopoulou Dodd et al. (2018) Flanagan et al. (2018) Brink (2017)	Walker et al. (2013)
	Joint production facilities	Drakopoulou Dodd et al. (2018)	
	Buying together	Drakopoulou Dodd et al. (2018) Granata <i>et al.</i> (2018) Flanagan et al. (2018)	
	Joint marketing	Drakopoulou Dodd et al. (2018) Flanagan et al. (2018) Alonso and Bressan (2017)	
Contribution to relational capital	Previous collaboration	Drakopoulou Dodd et al. (2018)	Benstead et al. (2018) Touboulic and Walker (2015)
	Trust	Granata <i>et al.</i> (2018) Alonso and Bressan (2017)	Bensteads et al. (2018)

		Michael and Morris (2007) Patricio et al. (2018) Hanna and Walsh (2008)	Walker et al. (2013) Touboulic and Walker (2015)
	Good relationship	Drakopoulou Dodd et al. (2018)	
	Equality	Mesquita and Lazzarini (2008)	Walker et al., (2013) Touboulic & Walker (2015) Walker et al. (2013) Touboulic & Walker (2015)
Contribution to governance	Formal	Granata et al. (2018) Human and Provan (2019)	Bensteas et al. (2018) Touboulic and Walker (2015)
	Informal	Flanagan et al. (2018) Nadin and Cassell (2007) Shaw (2006) Drakopoulou Dodd et al. (2018)	Bensteas et al. (2018) Touboulic and Walker (2015)

Having chosen the relational theory as our theoretical frame, our next consideration is whether we seek to engage in theory building, testing, or elaborating. Our approach can be described as abductive reasoning to allow for theory elaboration: *“a disciplined iteration between general theory and empirical data allowing us to connect with prior theory and infer the best explanation by reflecting between theory and data. This is a middle path between the inductive and deductive approach”* (Wonter et al., 2020, p.1914). The reason is that in the inductive approach, the researcher embarks upon the research with no prior knowledge or theoretical ideas. On the other hand, applying theory rigidly may be restrictive and prevent novel insights (Gehman et al., 2018). We intend to apply prior knowledge whilst remaining sensitive to the research context and allowing new themes to emerge.

3. Research method

Our methodology is an exploratory case study approach using mixed methods for data extraction from the Welsh drink sector through three focus groups and 13 interviews. The case study methodology is appropriate to answer research questions of “how” (Yin, 1994). Moreover, this choice was driven by the scarcity of studies in this particular field of research which calls for more in-depth research (Franceschelli et al., 2018).

The reasons for using focus groups over other methods in this study are manifold (Patton, 2002; Pettit et al., 2010): it allows collection of detailed information about personal and group feelings; it provides an opportunity to collate a broader range of information with an opportunity to seek clarification with the participants; compared to other methods, like the semi-structured interview, a focus group can save time and money by collecting rich, in-depth data from 8-10 participants in the group. The focus group phase of the data collection process began with identification of a sample of 77 micro and small breweries that are representative of the Welsh brewery sector, which includes 98 breweries (RateBeer, 2019). These 77 organisations had their own website or social media page and brewed regularly. All 77 were contacted in the first stage while, after a few follow-ups, 17 of them agreed to participate in our research and attended the three focus groups, while the remaining either declined or did not respond to the emails and follow ups.

We developed a focus group protocol which includes the brief explanation of the project, the aim of the focus groups, who should attend and a section including the focus group questions. The questions were influenced by the literature review process (Camuffo and Gerli, 2018) and a few iterations were then conducted during the team meetings to align with the aim of the research study. The questions asked, with whom do the firms collaborate and in which areas? What was the reason that they collaborate with them? How does the collaborative partnership really work? And finally, what are the obstacles, benefits, and risk of the collaboration? The focus group stage of the data collection consists of three focus groups representative of the Welsh brewery sector in terms of company size, geographical locations, product type and customer base, held between September and November 2018 with microbreweries within three different regions of Wales i.e. North Wales, South West Wales, and South East Wales. Participants were managing directors and owners of small- and micro-breweries. The protocol was first pilot tested before administering the protocol in the first focus group with eight participants from Welsh brewers industry, a not-for-profit waste & resource management organisation, a specialist food & drinks manufacturing consultancy and a specialist food & drinks market research consultancy in the south-west region of Wales in July 2018. The protocol used for the focus groups is presented in Appendix 1.

As recommended by Sanchez Rodrigues et al. (2010), the data collected during the focus groups were complemented by data gathered from interviews for the purpose of enhancing the overall data quality of their studies, as our approach intended. A total of 13 interviews were run with managing directors of breweries that could not attend the focus groups, despite expressing interest in participating in the study. During the interviews, the opinion of focus group participants was not disclosed to interviewees, since the researchers intended to avoid bringing bias to the data collection process through influencing interviewees' perceptions. The interviews were conducted over the phone by the first author, using the same questions presented in the focus group protocol. All the interviews were recorded with the permission of the interviewees.

Table 2 summarises the characteristics of the participating breweries, and interviewees.

Table 2- Demographics of the focus group (FG) attendees and interviewees

	FG1	FG2	FG3	Interviews
Number of participants	5	6	6	13
Production volume (Lit/month)	5000-40000	3000-100000	14000-800000	6400-44000
Number of employees	1-6	1-36	2-14	1-6
Spare capacity	30-40%	25-50%	0-50%	0-50%
Canning/bottling Inhouse-outsourcing	Outsource (2) Inhouse (1)	Outsource (1) Inhouse (2) Both (2)	Outsource (4) Inhouse (1)	Outsource (1) Inhouse (7) Both (2)
Customer based	Wales	Majority Wales England	Majority North Wales England	50% Wales 50% England and Europe

The data collected from focus groups and interviews were recorded and transcribed by using a qualified transcription company to ensure veracity of the data collected. During the data analysis process, the main themes discussed during the focus groups and interviews were identified to ensure focus and data richness were obtained (Chakkol et al., 2018). The Nvivo 12 software package was used for the systematic and objective analysis of data collected from focus groups and interviews. This facilitated data coding to identify themes and categories (Yin, 2014; Miles and Huberman, 2013). Themes were labelled as inductive, if derived from

the data, or deductive if emerging from the literature (see Table 1). As given in Table 1, all deductive themes related to relational rent, capital, and governance, as related to horizontal collaboration, were extracted from the literature. Then, the first author performed the coding of the interviews and focus group texts using the Nvivo 12 software. To check reliability of the codes and the coding process, the second and third co-authors validated the codes generated in the data analysis process. The transcripts were coded based on the established main themes and sub-themes derived from the relational theory and literature review (see Table 1) and any novel themes emerging from the data (Wonter et al., 2020). For example, the quote below is a collaboration example of sharing “joint production facilities”. Therefore, it was coded for “joint production facilities”.

“A [pilot kit]. Some of the big breweries have a small pilot kit. Obviously, you wouldn’t want to do a test brew the size of that, but you could always say, ‘Well, you come down and do a brew on our kit, because our kit does 500 litres’” [FG3 B3]

The coding was continued until there was saturation of themes and no other new theme and sub-themes were suggested (Wonter et al., 2020). There were also new inductive codes resulting from the analysis that were not extracted from the literature but emerged from the focus groups and interviews. Therefore, new codes were created for them. At the next step, each code was discussed, and a final categorisation was agreed among the research team to ensure the validity of the findings (Lincoln and Denzin, 2000). The inductive codes were derived initially by the authors of the paper and then feedback was sought with the participants of the three focus groups and interviewees, which agreed entirely with the inductive coding.

Before proceeding with the subsequent sections of the paper, it is crucial to evaluate the quality of the research undertaken in this study in terms of its validity and reliability (Yin, 2009). The three types of validity suggested by Yin (2009), construct, internal and external, were considered during this two-phase study. A collection of evidence was gathered from the focus groups and interviews. The literature review serves as the context for development of the protocols used during the focus groups and interviews to ensure reliability in the data collection process. Furthermore, evidence from the data collection undertaken in a heterogeneous sample of breweries, which have diverse sizes, locations, product types and customer bases, were triangulated with the literature review.

4. Findings

The findings presented in this section are aligned with the three main themes identified in Table 1, i.e. relational rent, relational capital, and relational governance.

4.1 Findings with regard to relational rent

Relational rent was found in the focus groups and interviews in terms of resource sharing, knowledge sharing and expertise, joint selection of goods and services, joint creation of new products, services and/or technologies, joint production facilities, joint buying, joint wholesale, joint export, joint marketing and, finally, visibility of the national brand. Specifically, in terms of export, it appears size was a concern for micro firms, and they expect collaboration with similar size firms as the majority felt that big players might serve their own interest and use their power to influence decisions. As one of our participants said, *“I would envisage particularly on the export side we work with perhaps similar sized breweries”* [FG1 B3¹].

Logistics, human resources, and production facilities can be shared. As interviewee 1 stated, *“Logistics is difficult among small brewers, it’s, you know, we each have our own vans and our own drivers going up and down the country which doesn’t make a lot of sense. It would be nice if we could collaborate on getting the beer where it needs to be and keeping it well also.”* [Interview 1]. Pallet sharing on vehicles could lead to cost reductions for those involved in collaborative partnering, as one of our participants stated, it would be too costly to use their own vehicles and pallets to send the products all over the country while there are spare capacities on the pallets and vehicles. However, the geographical dispersion seems challenging, as one of our participants said *“...the logistics of Wales, it’s not the easiest place in the world to get around”* [FG1 B4]. Sharing equipment, such as testing kits, can also lead to an advantage as some testing kits are expensive.

There are different ways in which breweries can help each other in terms of knowledge sharing. It can be through direct communication or training, including sharing technical details on recipes, as one of the interviewees discussed: *“...been up there quite a few times actually, I used to train with him. Just really for a chat, but to get a couple of my most recent beers for him to try, and I tried some of his. Like his recipes, and he sort of knowledge transfers...”* [Interview 12]. It can be on the brewing process, such as one of the interviewees said: *“We’ve collaborated fairly recently with another group of people who are looking to sort of to brew their own beers and for their special occasion helping them out with that”* [Interview 6]. Another example of collaboration is sharing technical advice on brewing machinery and lab

¹ FG: Focus Group, B: brewer

equipment, as one of the brewers in the focus group workshop in North Wales discussed: “We do get some people asking from different breweries, some in South Wales, they are looking for pieces of equipment which I’ve got quite a knowledge of; so if they need pieces of equipment, I can then give them a list of used machinery deals where sometimes it’s just as good as buying new. It may be a tank or ..., so I’ve got all that, so I share that knowledge with other people” [FG1 B1].

Relational rent was also discussed as joint buying for different raw materials or different kits and equipment to achieve economies of scale: “I think there may be some benefit looking at the malts, that is probably not for the likes of X and Y but for the smaller producer that if we could get a group together and say we can’t have a central logistics store ... but if we said, again similar to the power, we will all buy from you, we’ll all buy our bagged stuff then there may be a small benefit, but it all helps, that little bit helps but I don’t think there’s a major” [FG1 B2]. Furthermore, we found early stages of horizontal collaboration amongst breweries where there were early indications of relational rent generation, as two participants in our second focus group stated: “...the shared purchase of the micro-kegs saved each of us around £500-£600 in costs and working capital requirements compared to us doing it individually” [FG2 B3, FG2 B1]. This example is early evidence of relational rent generation, which authors will follow-up to measure the true impact of horizontal collaboration.

Another concept of relational rent, identified in the study, was an established brewery acting as a temporal procurement hub, supplying raw materials to other micro-breweries as and when required: “We have grown the business over the years by being a little bit of a hub. So, if anybody needs anything by way of malt or ... sometimes some brewers would rather use our malt because we get it at a slightly cheaper price, and they save the transport then in bringing the malt in. So, we’d like to build that part of the business, supply more things” [FG3 B1].

Joint marketing is another aspect of relational rent where businesses can share the cost and responsibilities of export, online sales, tradeshows, national food produce centre and festivals: “I think sales and marketing could be another good area to go through. You’ve got a portfolio of beers and then you can offer it whether it’s to England or whether it’s to Scotland, or whether it’s to France or whatever you’ve got a portfolio of beers from say North Wales and one from South Wales and you can work on that basis.” [FG1 B1].

Joint selection of goods and services, such as energy providers or waste management, can result in relational rent for micro and small brewers, as one of the participants in focus group 1 stated: “Collaboration on energy projects would be really useful and very simple to implement, although people have got different contracts over different years, eventually when

they come out of that contract, if the price ... the more people we get in it the cheaper we can get those costs down and it's exactly the same thing" [FG1 B1]. Furthermore, micro and small breweries can gain benefit if they work collaboratively to manage waste as one of the participants added: "... well, whatever's waste, but predominantly, obviously, grain and yeast and hops, those three things, is there scale and economies in them being collected regionally for profit, instead of giving them away to local farmers?" [FG2 B1].

Relational rent can be generated from joint creation of new products, services and/or technologies. As one of the brewers stated: "*But we run Brew Your Own days, so, we recently had one of our customers, who are from Stoke, come and they sent their staff, on a staff day out, to come and make beer with us. So, they came and made the beer with us, and then, we've continued to make that beer for them since*" [Interview 13].

There were also three inductive codes as the result of the analysis of the data, including joint wholesale, joint export, and visibility of the national brand. As one of the brewers discussed "*You're in a little corner. Let's break out of the corner and find, the key to every one of you is identifying a wholesaler who will basically take a mixed load*" [FG1 B1]. In addition, joint export was found an important relational rent, as one of the participants discussed that they work with other partners on the export because of the mutual benefit it has for both sides "... *it's more attractive to buyers in other countries if they can have a range of beers from different producers*" [FG1 B3]. Finally, the visibility of the national brand was an important relational rent that could be gained through collaboration among micro and small partners. As one our participants discussed, "... *I think we don't do enough for Welsh beer... The end users should understand that we've got a good story to tell*" [FG3 B1].

4.2 Findings with regard to relational capital

When it comes to relational capital, the most important factor to emerge was trust amongst others, such as previous collaborations, closeness, good relationship, equity, respect and knowing each other; if this is not present, then there will be loss of control over different processes: "*Trust is a big thing when you're sending your product off. That goes for anything, a car or whatever, an engine. If you're not finishing it yourself, you're losing control and that customer has got to have absolute trust and faith*" [FG3 B1]. Both the FG participants and interviewees highlighted the importance of trust, especially when packaging beer products on behalf of other breweries. A brewery is dependent on another brewery or supplier for co-bottling or co-packaging and trust has to be established between both parties for long-term

collaboration. Furthermore, factors such as previous collaborations, knowing each other and good relationship were discussed as relational capital: *“The four brewers involved had worked together as part of the Conwy Feast, the food festival in Conwy, so we’d got to know each other as individuals for the last two or three years prior to this coming about. So, we knew we worked together well over a period of a weekend, so it seemed like a logical step for us to then say ‘Well, let’s do it on a permanent basis’ [FG1 B4].* Finally, our participants discussed close relationship as a relational capital: *“If you can get a bit of a closeness going between the people who really matter in the industry, it’s the people who buy the stuff off of us. Every customer we take on, we’ve got a close relationship with them” [FG3 B1].*

Similarly, another element of relational capital, i.e. equity, needs to be carefully managed between breweries to ensure they do not affect each other’s market share. It was evidenced from the findings that the brewers are aware of not stepping into each other’s market or customer. They would only like to collaborate on areas that do not jeopardise their own revenue or market share: *“There’s a certain element where we can work together, but equally we don’t want to be stepping on each other’s toes and probably all want to protect our own share of the market, so that’s something that you have to be; it’s a sensitive area obviously and it shouldn’t be a total barrier, obviously. As we’ve found, there are definitely ways we can work together whilst still being in competition with each other. It works very well. So, it’s something that can be overcome but something still to be aware of” [B3 FG1].*

Furthermore, the issue of confidentiality emerged as an important factor for collaboration among micro and small firms, as one of our participants said: *“It depends what area you’re looking at. If it’s actually around your products, most brewers get quite protective of their recipes and things like that, so that would be an area that you might be a little bit reluctant to open up on” [B2 FG1].*

4.3 Findings with regard to relational governance

When it comes to governance mechanism, the results of our focus groups and interviews all suggested that collaboration in these micro and small enterprises is largely governed by informal mechanisms: *“... it has been informal, but I’d say in terms of informality versus structure, I think the more people you get involved and the further afield it goes or the more, I’d say financially tying, ours is pretty financially tying, then the more complexity, then yes, I think you definitely need to have a structure in place but from the four of us, we kind of knew each other quite well so I think we probably got away with it” [FG1 B4].* However, they strongly believe this process requires a transition to formal mechanisms through contracts. *“So,*

the informal nature can create a bit of confusion; not everybody is clear about what they need to do, or the expectations are different” [Interview 7].

Therefore, horizontal collaboration in micro and small enterprises is governed by informal governance mechanisms, but formal governance mechanisms are needed as the collaboration becomes more complex the greater the number of firms being involved, in order to stop confusion in terms of role expectations and responsibilities.

The conceptual model of collaboration among micro and small firms through relational lens is presented in Fig. 1. We highlighted the additional themes that emerged through this research in grey.

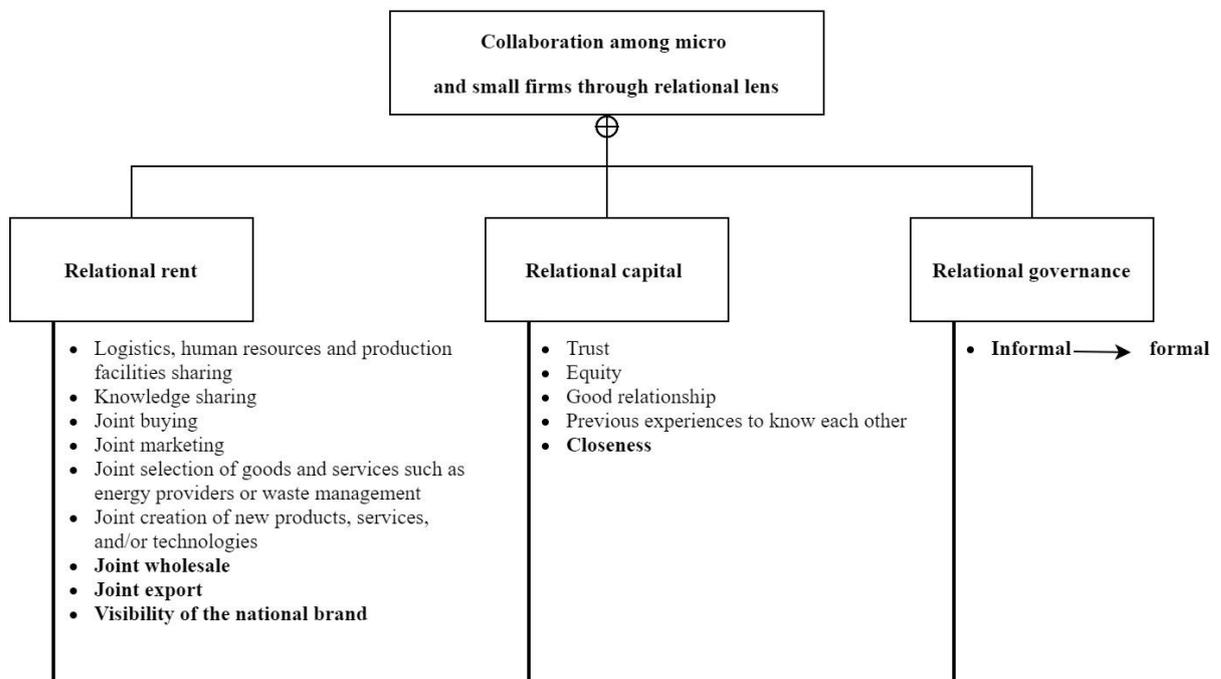


Fig.1 Conceptual model of collaboration among micro and small firms through relational lens, (additional themes in bold)

5. Discussion and proposition development

This study is amongst the very few that investigate horizontal collaboration in micro and small companies within the drink sector. The findings highlight the accrued benefits for micro and small breweries over the long-term when working in collaboration and, at the same time, opening avenues for creativity and innovation through joint product or services development

with groups of breweries. The three elements of relational theory - rent, capital, and governance - provide a framework to present our findings and identify new themes inductively to contribute to the existing research underpinned by relational theory.

The majority of our findings reported links to collaboration on a small scale that can result in long-term benefits for each micro and small brewery if they continue to collaborate. Other specific themes, such as resource sharing, can help breweries to reduce operational costs by sharing logistics, human resources, and laboratory equipment. The literature also highlights a similar approach during the early stages of collaboration where firms focus on short-term cooperation linked to relational rent, such as joint distribution or purchasing (Lambert et al., 1999; Moutaoukil et al., 2012). This finding aligns with the literature, highlighting resource constraints as inhibitors for SMEs' growth and, simultaneously, motivators for exploring collaborations (Meiseberg and Ehrmann, 2013; van Rijnsoever et al., 2017). However, as our findings evidence, some small firms prefer to collaborate with others of the same size, rather than micro firms. Reasoning includes the mismatch of resources, power imbalance, inappropriate organisational processes and / or structures (Zaridis et al., 2020; Hanna and Walsh, 2008). In addition, geographical issues seem to have a hindering effect on collaboration among micro and small firms.

Knowledge sharing and experience can be specific in terms of technical advice and training, which can help many micro and small firms to improve their product and process efficiencies through horizontal collaboration (Benstead et al., 2018). Joint selection of goods and services can be in terms of energy projects, export projects and waste management. Waste management, specifically yeast waste, was recently reported as being a shared by-product in only one brewery included in the study of Patricio et al. (2018), who investigated circular economy in the sample of Swedish SMEs in the food and drink sector. They discuss how lack of knowledge is the main barrier for companies from participating in this waste management project. Our participants were eager to collaborate on a waste management project, but they are wary of any additional cost and time required to implement the project and realise benefit.

This research also introduces the new themes of joint wholesale, joint export and visibility of the national brand as one of the main relational rents generated as the result of collaboration among micro and small breweries. The cumbersome and bureaucratic process involved in managing export deters many micro and small firms from considering export. In the context of Welsh brewery, having a national brand image through participation in national and international beer festivals and forums would help breweries to improve their visibility and image, thereby extending market share across the border into England and beyond the UK.

Having a common voice in the procurement of raw materials would provide more bargaining power to the brewers, which could not be achieved before, when buying individually with the wholesaler. All three findings that inductively emerged from our data are context-specific and help in developing a greater understanding of the specific relation rent from the Welsh brewery perspective. Therefore, these discussions led to our first proposition:

Proposition 1a: *Micro and small enterprises' structure and characteristics enable them to generate relational rents through horizontal collaboration.*

Proposition 1b: *The generation of relational rent can be affected by the size of the organisations involved in horizontal collaboration.*

With regard to relational capital, the literature has identified trust as an important factor and other relational capitals to be experience of previous collaboration, good relationship and equity (Benstead et al., 2018; Walker et al., 2013; Chakkol et al., 2018). This study found sufficient evidence that these relational capitals contribute to collaboration in the micro and small enterprises, but also that elements such as closeness, respect and knowing each other in advance add to the relational capitals, contributing to horizontal collaboration in this research. In the context of bonding (close relationships), our research differentiates the small and micro firms' collaboration from that of SMEs, as Meiseberg and Ehrmann (2013) found that bonding increases the risk of exploitation and raises the possibility of opportunistic partner behaviour that can prove a critical risk for SMEs. In our findings, micro firms and small firms raised their concerns that they would prefer collaborating with companies of similar size, i.e. micro with micro and small with small breweries. In doing so, they may have an equal say and would manage to control the opportunistic behaviour of any other collaborating firms (Hanna and Walsh, 2008; Granata et al., 2018). In discussing small entrepreneurs, Steensma et al. (2000) suggest that the cost of creating and maintaining a strong form of trust based on partner commonality will be less than the cost of erecting semi-strong trust based on contractual safeguards.

Our findings also provide evidence that, as these collaborative partners are still competitors, competition can moderate the relational rent. Therefore, looking for the right balance can be an effective solution to obtain a positive effect on the firms' performance (Bengtsson and Kock, 2014; Bengtsson et al., 2010). However, as Michael and Morris (2007) discuss, the challenge is to maintain the relative balance in levels of collaboration and competition with the partners.

Our findings are in line with the conclusion of Granata et al. (2018) that formalisation could help to balance collaboration and competition in the micro firms of a regional French wine case study.

In addition, the issue of confidentiality can act as another moderator for the capital rents needed for horizontal collaboration among small and micro enterprises; these findings are in line with Benstead et al. (2018) who concluded that, when there is collaboration between competitors, trust has a crucial role because of confidentiality concerns and firms tend to protect their individual competitive advantages. Therefore, these discussions lead to our second set of propositions:

Proposition 2a. *The degree of success of horizontal collaboration partnerships adopted in micro and small enterprises is dependent upon building relational capital.*

Proposition 2b. *Some confidentiality aspects linked to competitive environment can mediate the relational capital of collaborative partnerships among micro and small enterprises.*

In terms of governance, while literature defines mechanisms as: formal mechanisms, such as contracts and third-party enforcement; and informal ones as effective self-enforcing means of partnership governance (Hahn and Gold, 2014; Benstead et al., 2018), our findings demonstrate that the collaboration in small and micro firms is governed through informal mechanisms, while these collaborative partners strongly believe this process requires a transition to formal mechanisms through contracts. This is in line with the findings of Chakkol et al. (2018), concluding that formal contracts emphasise coordination and adaptation oriented provisions facilitate the development of such relational practices, resulting in fostering the use of relational governance. More specifically, our findings are in line with Granata et al. (2018) who discussed that formalisation in the collaborative partnership among micro wine enterprises in Pic Saint Loup region of France could lead to a successful collaboration experience. The informal nature can cause confusion, as it is not clear for everyone what they need to do or what they are expected to do, while on the other side, contractual governance mechanisms limit opportunistic behaviours (Kranz et al., 2021). However, whether these two governance modes in the context of micro and small firms can substitute and complement each other is beyond the scope of this research and calls for further research. Therefore, these discussions lead to our third proposition:

P.3 Horizontal collaboration in micro and small enterprises is governed by informal governance mechanisms, but formal governance mechanisms are needed in order to stop confusion in terms of role expectations and responsibilities.

5.1 Academic research contributions

This research contributes and extends the research on horizontal collaboration by providing an in-depth insight into how horizontal collaboration occurs and how it is facilitated in micro and small enterprises within the drink industry.

Built on the few research studies into collaboration in micro and small enterprises in the drink sector, including Flanagan et al. (2017) investigating a sample of seven small breweries in USA, Alonso et al. (2018) for micro and small breweries in Australia, Granata et al. (2018) on micro firms in wine sector in France, and Drakopoulou Dodd et al. (2018) on 25 Irish craft beers, our research contributes to academic research on horizontal collaboration in micro and small firms in the drink sector by adding new themes of relational rent as a result of horizontal collaboration in micro and small breweries, including joint wholesale, visibility of the national brand, and joint export, to previously existing themes of process technology development, inbound logistics, marketing (Flanagan et al., 2017), knowledge sharing and new product development (Alonso et al., 2018; Drakopoulou Dodd et al., 2018).

Our research sheds light on how relational capital, such as trust, equality, good relationship, and closeness, can facilitate horizontal collaboration among micro and small firms, with confidentiality concerns and competitive environment previously discussed for micro firms in the wine sector (Granata et al., 2018), having a mediator role.

Finally, we shed light on the governance mechanisms discussed in previous literature from informal governance in the collaboration among a sample of small breweries in Flanagan et al. (2017) to highly formalised ones in micro firms in the wine sector (Granata et al., 2018) by bringing evidence that the current informal mechanisms should change towards formal governance mechanisms.

Therefore, (1) it contributes to the horizontal collaboration literature in micro and small firms in the drink sector; (2) it adopts the relational theory lens to explore horizontal collaboration in the context of small and micro firms with which to provide not only an extensive overview of newly found factors about relational rent, capital and governance in this context, but also new insights.

5.2 Managerial implications

This research provides managers of micro and small enterprises with examples of how collaborative partnerships can be formed. In this way, it is important that enterprises have trust that can be fostered through previous collaboration experiences or knowing each other sufficiently well. Also, the equity of accountabilities, responsibilities and benefit-risk sharing of horizontal collaborative partnerships are paramount in ensuring their success.

To facilitate effective collaboration, the informal governance mechanisms that already exist in horizontal collaborative partnerships among micro and small enterprises need to be complemented with formal contractual arrangements in order for the partnership members to agree and apply appropriate accountabilities, responsibilities and benefit-risk sharing mechanisms that are fair and equitable; hence, opportunistic behaviour is minimised or avoided completely.

The micro and small enterprises can collaborate significantly in terms of resource sharing, which includes logistics and human resources, leading to substantial cost reductions and improvement in quality, as well as shared knowledge of risks and experiences, including technical advice and training. These enterprises can join forces in the selection of goods and services, including energy projects, expo projects and waste management. Furthermore, co-creation of new products, services, and technologies can involve organic products; co-creating innovation; joint production facilities, such as sharing equipment and packaging; using pilot kits. Joint procurement, joint wholesaling, joint export and joint festivals can also be different areas of collaboration for small and micro firms. Throughout these collaborations, the visibility of the national brand will be increased.

5.3 Limitations and further research opportunities

We have investigated horizontal collaboration in small and micro enterprises in the brewery sector in Wales. The findings reflected the views of participating companies in support of the concept of collaboration, and different facets could have been noted if fewer proactive participants were engaged. Nevertheless, a wide range of aspects has been identified and examined, providing an important contribution to the findings presented in the paper.

This research allows other researchers to extend the scope to other industries and countries and explore any regional differences related to relational rent, capital and governance. These opportunities may include conceptualisation of similar research studies through different theoretical lenses, such as stakeholder theory, resource-based view and institutional theory, which are all equally relevant to horizontal collaboration; survey-based research, including

micro and small enterprises across a wider variety of industries and sectors to generalise the results presented in this paper, as case study methods do not help to generalise the findings; and extending the research presented on the adoption of horizontal collaboration practices in the context of micro and small firms, to focalise more on current grand challenges, such as climate change adaptation, sustainability, disaster relief and the internet of things, among others. Finally, as our cross-sectional research design offers only a snapshot, longitudinal research is required to account for cause-and-effect relationships, particularly regarding changes in the alignment of governance modes. Longitudinal designs would also allow the study of how and why endogenous triggers cause shifts in the dominance of governance modes over time.

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Appendix 1:

Focus Group protocol

The Co-Growth Project

The Co-Growth project aims to facilitate cooperation among the Welsh drink sector through a cluster-based approach that will inform drinks producers to take effective decisions on when to collaborate, who to collaborate with, benefits of collaboration. The cooperation activities that the project aims to facilitate are expected to generate significant impact on the key performance indicators of Welsh drinks producers, including: growth, ROI, water & energy usage, carbon footprint, and productivity.

The Focus Group aims to

Showcase the process and quality management system of an established brewery.

Discuss the main motivations that make Welsh breweries adopt a collaboration business model and form clusters with other breweries.

Discuss the main preconditions that should be considered prior to establishing cooperation clusters.

Discuss examples of how cooperation clusters are formed and run.

Who should attend?

We cordially invite the following executives to attend this focus group and welcome your valuable inputs and insights.

Owners/MD of Brewers and Alcoholic Drinks Producers

Managers/Representatives from Brewers and Alcoholic Drinks Producers

Focus Group/ interview questions:

- 1- Who did your company collaborate with and in which areas?
- 2- Why did your company work with them?
- 3- What were the obstacles?
- 4- How did the collaborative partnership really work?
- 5- What were the benefits?
- 6- What were the risks related to the collaboration?