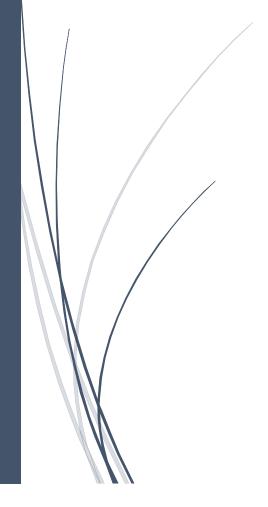
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Managerial attributes and their effect on craft business performance during the COVID-19 pandemic

The effect of entrepreneurial orientation, market orientation, and personality traits of company owners on the survival of microbreweries during the COVID-19 pandemic





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Preface

Thank you for reading my MSc thesis. When choosing the topic of my thesis I was pleasantly surprised that I was able to write it about a passion of mine: craft breweries. It was thereafter even more suprising to be guided by a supervisor who has excellent knowledge about the beer industry. I would thus like to thank my supervisor, Frans Verhees, for his patience and time. The meetings we had were both plentiful and very enjoyable. I will fondly remember the times we were discussing random beer-industry related topics and forgetting where and when we wandered off.

I hope you enjoy reading this thesis.

Nicolaas Vaandrager

Abbreviations

EO = Entrepreneurial orientation

MO = Market orientation

FFM = five-factor model (of personality)

RBV = Resource-based view

SME= Small and medium enterprises

CED = Committee of Economic Development

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1. Introduction

Smaller companies have a significant chance of failure within the first three years of operation (Watson, 2003). The COVID-19 pandemic has demonstrated that these smaller companies are exposed to an even more increased risk of failure. (Bartik et al., 2020 (b)). During the COVID-19 crisis, the measures which were undertaken by various countries span from total lockdowns to severe limitations in sale possibilities. Larger companies experience two major benefits: absorption of decreased market sales with financial means and (often) multiple sales channels. Smaller companies are, in comparison, more reliant on smaller and local shops (Carson, 1985) and lack the financial means to compensate for suddenly decreased profits (Bartik et al., 2020 (a)). The measures taken to combat COVID-19 thus have a higher impact on small and medium enterprises (SMEs) than on large enterprises.

Within the context of SMEs, COVID-19 has also impacted many "craft" companies. Craft SMEs typically focus on producing local, sustainable, and unique products. The craft philosophy, which is present among many micro SMEs, emphasizes the product and other ideas of emancipation, individualization, sub-cultural identification, and anti-commercialism (Jakob, 2013). These enterprises are typically more product-oriented compared than larger corporations who focus on selling to customers. Even though the business model of many craft SMEs puts less emphasis on well-established business concepts, they have been proven successful (Jakob, 2013).

The corporate interest in determinants of business success has enabled extensive research within the business and marketing literature. The market, which is influenced by developments such as the internet and globalization, has forced companies to adapt to their current and future demands quickly. Thus, it is no surprise that several concepts, with company performance as the dependent variable, indicate that the ability to change according to market demands has a higher chance of better company performance. Among the concepts which highlight adaptability are market orientation (MO), personality traits of people with managerial functions within a firm, and entrepreneurial orientation (EO).

Market orientation refers to "the organization-wide generation, dissemination, and responsiveness to market intelligence" (Kohli & Jaworski, 1990. p.3). In essence, this signifies that an organization can successfully gather useful information from both competitors and customers. Thereafter they should be able to respond properly to the acquired information and lastly successfully communicate this to everyone within the firm. The last step is less relevant for micro and small firms with few employees. The EO of an enterprise indicates the integration of innovativeness, proactiveness, and risk-taking into the strategy and core beliefs of business (Fairoz et al., 2010). Lastly, the manager's personality traits can significantly impact an enterprises' adaptability to these changes (Carson, 1990). The business plan and strategy of smaller enterprises are often determined by the owner/founder of the enterprise. Craft SMEs can thus be heavily influenced by the personality of the founder/owner and their ideas regarding a firm's strategy.

An arguable essential part of the concepts of EO and MO involves a firm's adaptability to the current market with all associated actors. Considering the changes which the market has seen in the last decades, it can be assumed that all businesses that include these concepts in their business strategy can deal with a certain amount of change. While most firms can handle these changes, some situations bring more abrupt changes to the entire market. An example of this

is the 2008 financial crisis which saw the need for many companies to adapt their business model to survive the decline in income (Simón-Moya et al., 2016). The effects of the 2008 crisis were, however, relatively gradual compared to the sudden limiting measures taken during the COVID-19 crisis. The COVID-19 pandemic saw restrictions such as lockdowns which forced many companies to immediately close their stores. This restriction affected most businesses which enables a comparison between SMEs who have, to some extent, implemented MO & EO in their business strategy and SMEs who may have had less interest in these concepts and align themselves more with the core ideas of craft enterprises. This can be done since the primary goal of both more profit-oriented companies as well as companies with limited interest in these business concepts has arguably changed during the COVID-19 pandemic. Ultimately, both types of companies want to survive the pandemic, and thus a more even comparison can be made. This comparison provides insights into the usefulness of the MO & EO concepts for smaller companies since the pandemic has created the possibility of running an experiment. The COVID-19 pandemic has also presented the possibility to test whether certain personality traits have helped a SME survive and possibly thrive during the pandemic. With the help of the Big 5 personalities concept, certain characteristics, which are also contextually overlapping with the EO & MO concepts could provide useful insights into why some people can more successfully overcome the challenges presented by the COVID-19 pandemic than others.

The COVID-19 pandemic thus provides an interesting scenario that tests several concepts within the business literature: What roles do MO, manager's personality, and EO have on the ability of a craft SME to adapt its enterprise to survive and thrive during a crisis?

To summarize: Small and medium craft enterprises have a significant chance of failure within the first few years after their founding. Additionally, the COVID-19 pandemic has seen an increase in smaller companies filing for bankruptcy (Bartik et al., 2020 (a)). This failure can partly be explained by the company being unable to adapt to the changes brought by the COVID-19 crisis. Therefore, this thesis attempts to determine how market orientation, entrepreneurial orientation, and personality characteristics of the owner influence a company's performance before, during, and after the COVID-19 crisis.

Research question

What managerial attributes influence the success of micro, small and medium craft enterprises during the COVID-19 pandemic?

Sub Questions

- 1. What is the role of entrepreneurial orientation on the successful transition of a small craft enterprise during the COVID-19 pandemic?
- 2. What is the role of market orientation on the successful transition of a small craft enterprise during the COVID-19 pandemic?
- 3. What is the role of personality traits of an enterprise's owner on the successful transition of a small craft enterprise during the COVID-19 pandemic?

2. Theoretical background

2.1 Entrepreneurial orientation

Identifying search terms and databases

The purpose of this literature study was to gain insights into the existing literature concerning entrepreneurial orientation within small companies and their influence on company performance. This paragraph functions as literature background for the sub question "What is the role of entrepreneurial orientation on the successful transition of a small craft enterprise during the COVID-19 pandemic.

Concerning the inclusion of the concept of a successful transition during the COVID-19 pandemic research by Pelham & Wilson (1996) indicated that performance could be measured by "subjective assessment of company performance relative to expectations" (p.38). Thus, in line with Pelham & Wilson's use of the concept of performance, the successful transition of a company can arguably be considered at least reasonable performance given the circumstances of the COVID-19 pandemic.

The specific situation of craft enterprises has received limited attention in literature. The literature study thus focuses on small enterprises. From this, the key concepts of entrepreneurial orientation, small companies, and performance were selected. This can be seen in table 1. Keywords and their synonyms were combined by using Boolean operators (AND, OR) and/or wildcard characters (*). The final search term was ("Entrepreneur* orient*") AND ("small company*" OR "small firm*" OR "small enterprise*") AND (performance) AND (relation*). The search was performed on abstract, title, and keywords.

Table 1: keywords, synonyms, and search terms used for the systematic review.

Keyword	Synonym(s)	Search term	
Entrepreneurial orientation	Entrepreneurial orientation, EO	"Entrepreneur* orient*"	
Performance	Performance, Success	Performance OR Success	
Small enterprise	Small enterprise, small firm, small	"small company*" OR "small	
	company	firm*" OR "small enterprise*"	
Relationship	Relation(s), influence, link	Relation* OR influence OR	
_		link	

Selection procedure

After the search query was created and executed in Scopus, there was a screening phase.

Articles were removed from the literature study if they were not able to meet the following requirements:

- The article contained information about the link between entrepreneurial orientation or one of its components and performance.
- The article is peer-reviewed and published.
- The article is available for the researcher in full text.
- A SNIP value of 1 or higher, this was done to ensure high-quality articles were selected. While some articles in less-established journals may be excluded during this step, the selection of quality articles was prioritized.

In figure 1, which can be seen below, the flow diagram displays how the 25 articles were selected.

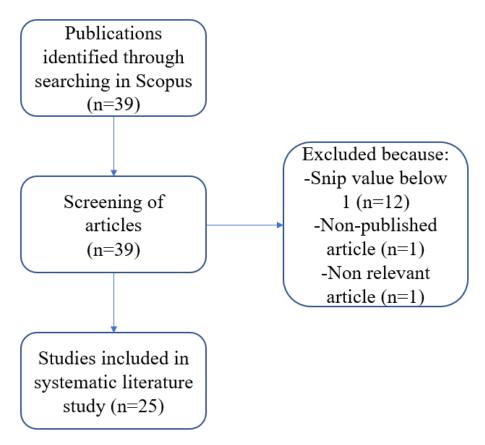


Figure 1: Flow diagram about the number of publications identified, how many of those are included and excluded from the systematic review, and the reasons for exclusions

Definition of entrepreneurial orientation

In the literature study, three interpretations of the concept of EO were found. This can be seen in table 2.

Table 2: Table of the definitions found in the systematic literature study of EO.

Definition	Number of articles	Example
EO as the methods, practices, and decision-making styles managers use to act entrepreneurially	17	Strategy-making processes, structures and behaviors of firms characterized by innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy, facilitating the pursuit of opportunities (Lechner & Gudmundsson, 2014)
EO as a guideline for using resources (RBV)	5	The tendency of a firm to act innovative, proactive and take risks and use these components in other resources available to an organization (Kim, 2018)
EO components integrated into the culture of an organization	3	EO is an organizational culture that focuses on wealth enhancement. It is determined by innovativeness, proactiveness, and risk-taking behavior (Asad et al., 2018)

The entrepreneurial orientation of a firm refers to "the methods, practices, and decision-making styles managers use to act entrepreneurially." (Lumpkin & Dess, 1996, p.136). There are three to five components that make an organization's methods, practices, and decisions entrepreneurial: Willingness to innovate in new products or services, a pro-active stance towards market opportunities, and willingness to take on risks associated with market opportunities (Rauch et al., 2009; Wiklund & Shepherd, 2003). Since the introduction of EO, there has been a debate on whether aggressiveness towards competitors and autonomy fall under the concept of EO. In the context of SMEs, most authors do not mention the last two components while others have specifically emphasized on these components in their study (Chaston & Sadler-Smith, 2012; Grande et al., 2011). These last two components were, in this thesis, not included as most literature uses the 'classic' definition of EO and can thus be more applicable. Furthermore the characteristics of craft micro and SMEs typically have less competitiveness and a lot of autonomy thus making these components less relevant

Literature, which is mainly focused on smaller firms, views managers, CEOs, or owners of an organization as key informants when measuring the EO of a firm (Aragón-Correa et al., 2008; Hosseini et al., 2018). According to these authors, the behavior of these individuals reflects on the firm's ability to act entrepreneurial. In practice, this would mean that the 'important' individuals, such as managers and owners, influence the decision-making process so that an organization becomes more innovative, proactive, and risk-seeking in their respective market. This would thus indicate that talented and capable entrepreneurial individuals, who push their organization towards becoming more innovative, proactive, and risk-seeking, can be responsible for an increased EO of a firm.

While some see EO as a potential strategy, a branch of EO literature looks at business choices from the resource-based view (RBV) (Grande et al., 2011). This view considers all the tools of a firm, including sale strategies, marketing, and innovation, to be potential resources that must be managed in the right proportion to obtain maximum profit. Thus, within this specific literature field, EO functions as a guideline to efficiently and effectively use resources that can positively impact a firm's performance.

Lastly, there is literature which considers EO to be an integration of the three components of EO (innovativeness, proactiveness, and risk-taking) into the culture, posture, and all other processes of a company (Haider et al., 2017). A company can be considered entrepreneurial not when they make active strategy calls according to the core components but when these components are deeply integrated into the whole firm (Grande et al., 2011; Rhee et al., 2010). Integration in the firm means that all departments of a firm have at least one or more of the aforementioned entrepreneurial tendencies/components when fulfilling their tasks. Examples of this could be an increase of focus on departments such as marketing, data collection, or product development, processes which coincide the concepts innovativeness, pro-activeness and risk-taking.

The link between entrepreneurial orientation and performance

Table 3: Table of the relationships found between EO and performance in the systematic literature study of EO.

Link between EO & Performance	Number of articles	Example		
Direct link between EO & performance OR link of multiple components of EO with performance	10	EO increases performance as it enables firms to create, reconsider and apply their resources more efficiently. Entrepreneurial efforts pay back in the long term (Grande et al., 2011)		
Link between EO and innovativeness OR innovativeness component of EO on performance	4	EO influences the learning orientation of a firm, learning orientation affects innovativeness which influences performance (Rhee et al., 2010)		
EO together with organizational capabilities on performance	2	High growth firms are characterized by a combination of EO and internal capabilities. (Chaston & Sadler-Smith, 2012)		
Indirect impact of EO on performance	3	Innovativeness and proactiveness have positively moderated the relationship between market orientation and performance (Li et al., 2008)		

In the systematic literature study conducted for this chapter, the link between EO and performance was analyzed. Most common were studies investigating the role of EO on performance for specific markets or in specific countries. This can be seen in table 3 where 10 articles indicated a direct relationship between EO and a firm's performance. Thus, the following hypothesis was formulated:

H1: Entrepreneurial orientation has a positive impact on performance

Within the literature study, four articles were found which indicated a link between EO and innovativeness. In these articles, the linked innovativeness was operationalized as the creation of new products or services. The innovativeness component present in EO differs in that it focuses on the integration of innovativeness within the strategy-making or culture of a firm. Several studies within this literature study were focused on the interaction between EO, information gathering, innovation, and performance (Chaudhary, 2019; Kreiser et al., 2013; Li et al., 2008). They found that the concept of innovativeness, separate from EO, positively impacts company performance (Rhee et al., 2010).

Furthermore, several papers indicated that the combination of both EO and organizational capabilities was linked to higher firm performance (Chaston & Sadler-Smith, 2012). Organizational capabilities include "strategic positioning; new product development; financial management; business planning; innovative workforce; productivity; human resource management; quality; and information management" (Chaston & Sadler-Smith, 2012, p.420). This could mean that firms need to align several or all of these internal capabilities to more effectively use EO characterized strategies (Ndubisi & Agarwal, 2014; Wales et al., 2013). This could be positive and negative for smaller companies as their structure is often less established than bigger companies. However, this less established structure can also enable quick, easy, and seamless communication between departments compared to bigger firms.

Hypothetically smaller firms could thus quickly allign their capabilities. This would indicate that the literature which focusses on organizational capabilities might be less relevant in this thesis.

Kim (2018) indicated that EO positively influences a firm's performance, but the combination with dynamic capabilities could strengthen this influence on performance even more. Dynamic capabilities indicate a perspective which, similarly to the RBV, sees resources and capabilities as tools which can be utilized. Dynamic capabilities (DC) allow organizations to sense and shape opportunities and threats, seizing these opportunities and maintaining the competitive advantage through flexibility (Teece, 2007). It shares similarities with both EO (innovativeness, proactiveness) and the responsiveness component of MO. Literature has also pointed out that these similarities could make EO a pre-eminent dynamic capability (Zacca & Dayan, 2018).

2.2 Market orientation

Identifying search terms and databases

The literature study done for market orientation is similar to the literature study structure done for entrepreneurial orientation; to gain insights into the existing literature concerning the market orientation of small companies and their influence on company performance.

Concerning the inclusion of the concept of a successful transition during the COVID-19 pandemic, research by Pelham & Wilson (1996) indicated that performance could be measured by "subjective assessment of company performance relative to expectations" (p.38). Thus, in line with Pelham & Wilson's use of the concept of performance, the successful transition of a company can arguably be considered at least reasonable performance given the circumstances of the COVID-19 pandemic.

The specific situation of craft enterprises has received limited attention in literature; the literature study thus focuses on small enterprises. From this, the key concepts of market orientation, small companies, and performance were selected. This can be seen in table 4. Keywords and their synonyms were combined by using Boolean operators (AND, OR) and/or wildcard characters (*). The final search term was ("Market orient*") AND ("small company*" OR "small firm*" OR "small enterprise*") AND (performance) AND (relation* OR influence OR link). The search was performed on abstract, title and keywords.

Table 4: keywords, synonyms, and search terms used for the systematic review.

Keyword	Synonym(s)	Search term
Market orientation	Market orientation, MO	"Market orient*"
Performance Performance, Success		Performance OR Success
Small enterprise	Small enterprise, small firm, small	"small company*" OR "small
_	company	firm*" OR "small enterprise*"
Relationship	Relation(s), influence, link	Relation* OR influence OR
-		link

Selection procedure

After the search query was created and executed in Scopus, there was a screening phase.

Articles were removed from the literature study if they were not able to meet the following requirements:

- The article contained information about the link between market orientation or one of its components and performance.
- The article is peer-reviewed and published.
- The article is available for the researcher in full text.
- A SNIP value of 1 or higher, this was done to ensure high-quality articles were selected. While some articles in less-established journals may be excluded during this step, the selection of quality articles was prioritized.

In figure 2, which can be seen below, the flow diagram displays how the 26 articles were selected.

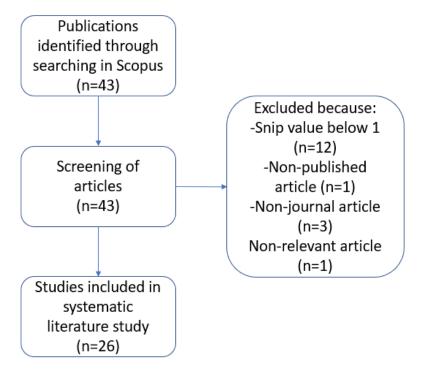


Figure 2: Flow diagram about the number of publications identified, how many of those are included and excluded from the systematic review, and the reasons for exclusions.

Definition of market orientation

Table 5: Table of the definitions found in the systematic literature study of MO.

Definition	Number of articles	Example
Business philosophy which focuses on generation, dissemination, and responsiveness to market intelligence	15	"the organization-wide generation, dissemination, and responsiveness to market intelligence" ((Kohli & Jaworski, 1990. p.3)
An organizational culture which focusses on creating superior value for buyers and thus performance for businesses	11	"The organization culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continuous superior performance for the business" (Narver & Slater, 1990. p.21)

In 1990 two fundamental definitions of MO were provided with each their take on MO. Kohli & Jaworski (1990) referred to MO as: "the organization-wide generation, dissemination, and responsiveness to market intelligence" (p.3). Part of the current MO literature which uses Kohli & Jaworski's definition focuses on information processes necessary to successfully implement marketing concepts. This perspective arguably considers MO to be a business philosophy present in all branches of an organization.

Narver & Slater (1990) disagree with the essence of the MO concept, they refer to MO as "the organization culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continuous superior performance for the business" (p.21). Narver & Slater argue that a MO focused organizational culture consists of customer orientation, competitor orientation and lastly inter-functional coordination.

While the two definitions maintain different ideas regarding the implementation of MO in a firm, there are similar difficulties as to its applicability for SMEs. In both definitions, the effective and efficient collaboration of departments, which results in proper dissemination of the generated market information, is a core component. However, SME often maintain low numbers of employees who typically have cross-departmental duties. This part of MO thus becomes less relevant when attempting to implement basic MO concepts in smaller firms.

The link between market orientation and performance

Table 6: Table of the relationships found between MO and performance in the systematic literature study of MO.

Number of articles	Example
17	Positive impact of MO on performance regardless of
	geographical setting (Brettel et al., 2009)
	Proactive MO positively influences exploitative and exploratory innovations strategies (Tan & Liu, 2014b).
9	MO influences innovativeness which in turn impacts company performance (Sandvik & Sandvik, 2003).
	articles 17

The link between MO and performance was already made in 1990 (Kohli & Jaworski, 1990; Narver & Slater, 1990) and has seen even more evidence since then. This can also be seen in table 6, where the link between MO and performance from the conducted literature study is present in 17 of the analyzed articles. The following hypothesis was formulated

H2: Market orientation has a positive impact on performance

Literature indicates an positive impact of MO on innovation (Fang et al., 2012; Sandvik & Sandvik, 2003; Tan & Liu, 2014). Differences have been found for types of innovations such as pro-active versus responsive innovation. This is, however, often dependent on the type of industry of a company serves. The effects of MO on explorative and exploitative innovation, similar to radical versus incremental innovation, refer to the priority a company puts on creating new products/services or responding to the market. Papers have been found which indicate that market orientation can only positively influence these types of innovativeness and thus performance when combined with organizational capabilities such as proper information gathering and processing (Najafi-Tavani et al., 2016; Roach et al., 2018). However, similarly to EO concepts such as organizational capabilities are deemed to be less relevant in the context of craft micro and SMEs.

Essential in all the relations as mentioned earlier is the gathering and processing of marketing intelligence which appears to be a prerequisite of any integration of MO within an organization.

Research has also indicated that companies who integrated MO in their long-term strategy saw relatively higher performance than companies who emphasized cost reduction (McNamee et al., 2000; Pelham & Wilson, 1996). It could thus be positive for SMEs to create long-term goals and strategies focusing on the market and customers.

Among all literature surrounding MO there has been agreement about the positive relationship of MO with innovation and performance. It can thus be argued that there is more than likely some link between all the specific concepts within MO, innovation, and performance. However, relevance for SME is limited as much research is based on several core concepts that are only present in bigger companies (culture, dissemination of information, and interfunctional coordination). It can then be assumed individuals within smaller firms could play a big role in determining the MO of a firm.

2.3 Big 5 Personality traits

Identifying search terms and databases

Similarly to the paragraphs concerning EO & MO, the purpose of this literature study was to gain insights into the existing literature concerning personality traits of owners, founders and managers of SME's and their influence on company performance. This paragraph functions as literature background for the sub question "What is the role of personality traits of an enterprise's owner on the successful transition of a small craft enterprise during the COVID-19 pandemic?"

From this research question, the key concepts of personality traits, owner, small companies and performance were selected. This can be seen in table 7. Keywords and their synonyms were combined by using Boolean operators (AND, OR) and/or wildcard characters (*). The final search term was ((personality AND trait* OR dimension* OR model) OR "big five" OR ffm) AND (performance OR success) AND (sme OR "small company*" OR "small firm*" OR "small enterprise*" OR "small business") AND (founder OR owner OR entrepreneur* OR manager)) AND (LIMIT-TO (DOCTYPE, "ar")) search was performed on abstract, title and keywords.

Table 7: keywords, synonyms, and search terms used for the systematic review.

Keyword	Synonym(s)	Search term
Personality traits	Personality traits, big five model,	"personality traits" OR "big
	FFM, personality dimensions	five model" OR FFM OR
		"personality dimension*"
Performance	Performance, Success	Performance OR Success
Small enterprise	Small enterprise, small firm, small	"small company*" OR "small
	company, small business	firm*" OR "small enterprise*"
		OR "small business"
Relationship	Relation(s), influence, link	Relation* OR influence OR
Owner	Owner, founder, entrepreneur,	link
	manager	founder OR owner OR
		entrepreneur OR manager

Selection procedure

After the search query was created and executed in Scopus, there was a screening phase.

Articles were removed from the literature study if they were not able to meet the following requirements:

- The article contained information about the link between personality traits and MO, EO or performance
- The article is peer-reviewed and published.
- The article is available for the researcher in full text.

Unlike the literature studies conducted for EO & MO, the SNIP value criteria were removed as it excluded too many articles which were deemed to be highly relevant to this research. The establishment of the concepts of EO & MO in literature compared to the B5 and its influence on businesses might explain the ability to only select high SNIP value papers.

In figure 3, which can be seen below, the flow diagram displays how the 27 articles were selected.

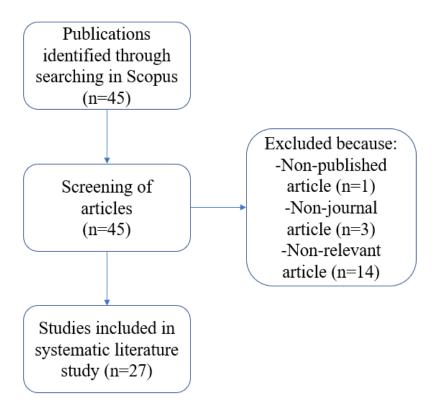


Figure 3: Flow diagram about the number of publications identified, how many of those are included and excluded from the systematic review, and the reasons for exclusions.

Personality traits & the Big 5 dimensions

The big five concept, also referred to as a five-factor model of personality (FFM) or abbreviated as OCEAN (Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) is used to gain insight into the relationship between managers' personality and business performance. These five key personality traits simplify how researchers can reliably predict and explain certain personality-related relationships. The five-factor model of personality enables researchers to have a clear overview of the vast variety in personality variables and compress them into the five concepts of FFM.

While the big 5 personality trait model is widely accepted, it is not the only concept used to find relationships between personality traits and phenomenon such as company performance, EO and MO. Personality traits such as risk-taking, innovativeness, and need for achievement were also included as research has been able to find correlations between the big five components and the abovementioned personality traits. Since these concepts are not directly used in this research, they are used as a logical implication of potential correlations within the framework used in this research.

Neuroticism

Neuroticism refers to differences between individuals regarding emotional stability and adjustment. Individuals who score high on neuroticism are more likely to experience negative emotions such as anxiety, depression, self-consciousness, impulsiveness, vulnerability, and

hostility (Costa & McCrae, 1992). Opposite to this, some people score low on neuroticism, they are typically self-confident, calm, and relaxed.

Extraversion

Within the big five personality model concept, the extraversion concept concerns an individual's tendency to display assertiveness, be dominant, be energetic, active, talkative, and enthusiastic (Costa & McCrae, 1992). Generally, the people who score high on extraversion are cheerful, sociable and adventurous, and seek stimulation. On the contrary, people who score low tend to be more reserved and independent.

Openness to experience

A person who is open to experience can be characterized as intellectually curious and is more likely to seek new experiences and novelty ideas. Someone high on openness to experience can be described as creative, innovative, imaginative, reflective, and untraditional (Zhao & Seibert, 2006). Someone low on openness can be characterized as conventional, narrow in interests, and unanalytical. Openness is positively correlated with intelligence, especially aspects of intelligence related to creativity, such as divergent thinking (McCrae, 1987)

Conscientiousness

Conscientiousness indicates an individual's degree of organization, persistence, hard work, and motivation in the pursuit of goal accomplishment. Some researchers have viewed this construct as an indicator of volition or the ability to work hard (Barrick & Mount, 1991). It has been the most consistent personality predictor of job performance across all types of work and occupations (Barrick, Mount, & Judge, 2001). Many scholars regard conscientiousness as a broad personality dimension composed of two primary facets: achievement motivation and dependability (e.g., Mount & Barrick, 1995). Dependability refers to the individual's level to act autonomously. Achievement motivation has been widely studied in the context of entrepreneurship (Shaver,1995), but dependability has received much less explicit attention.

Agreeableness

Agreeableness assesses one's interpersonal orientation. Individuals high on agreeableness can be characterized as trusting, forgiving, caring, altruistic, and gullible. The high end of agreeableness represents someone who has cooperative values and preference for positive interpersonal relationships. Someone at the low end of the dimension can be characterized as manipulative, self-centered, suspicious, and ruthless (Costa & McCrae, 1992; Digman, 1990)

The links of personality traits

The literature search conducted for this research resulted in papers that focused on the link between personality traits and performance. During the literature study, many papers which linked personality traits with performance through the mediating role of either MO & EO were found. The paragraph discussing the effects of personality traits on performance is thus divided into 3 smaller paragraphs:

- The link between personality traits and entrepreneurial orientation
- The link between personality traits and market orientation
- The link between personality traits and performance

The number of articles found for each category can be seen below in table 8.

Table 8: Table of the relationships found between personality traits and performance in the systematic literature study of personality traits.

Link between personality traits & performance	Number of articles	Example
The link between personality traits and entrepreneurial orientation	10	Low neuroticism plays a role in determining EO of a firm (Halikias & Panayotopoulou, 2003)
The link between personality traits and market orientation	4	Entrepreneur's conscientiousness has a positive impact on the SME's MO (Kottika et al., 2020)
The link between personality traits and performance	13	High levels of the personality traits extraversion, conscientiousness and openness to experience are more likely to have successful small businesses (Anwar et al., 2017; Palmer et al., 2019; Slavec et al., 2017)

The link between personality traits and entrepreneurial orientation

Research has seen attempts to link personality traits to EO. As mentioned in the literature study focusing on EO, the concept of EO consists of: Willingness to innovate in new products or services, a pro-active stance towards market opportunities and willingness to take on risks associated with market opportunities (Rauch et al., 2009; Wiklund & Shepherd, 2003).

Neuroticism

The link between neuroticism and EO is limited. Halikias & Panayotopoulou (2003) found some evidence of managers, owners and owners acting more entrepreneurial when scoring low on neuroticism. Brandstätter (2011) found low neuroticism to be an indicator of increased EO. Taking on risks and being pro-active would logically necessitate someone who is not emotionally unstable or easily impacted by the negative outcomes of risks. The following hypothesis was thus formed:

H3a Neuroticism has a negative impact on entrepreneurial orientation

Extraversion

Possessing the trait of extraversion directly implicates seeking stimulations as this trait encapsulates people who are assertive and active. EO encapsulates a mindset which focuses on being pro-active and looking for new products, services, and other opportunities. Brandstätter (2011) confirmed this as evidence was found of a correlation between extraversion and increased EO. The following hypothesis was thus formulated:

H3b Extraversion has a positive impact on entrepreneurial orientation

Openness to experience

A logical trait the big 5 which has evidence to its contribution on EO is openness to experience. The 'adventurous' nature of this trait can be linked to the risk-taking and innovativeness components of the EO concept. This was confirmed by Brandstätter (2011). An entrepreneurially oriented company is more likely to pro-actively seek new information and opportunities. Scoring low on the openness to experience trait thus inherently indicates that a manager/owner or found, who is often responsible for early development and policies within a

firm, is less keen to attempt to pursue new innovations and take risks. The following hypothesis was thus formulated:

H3c openness to experience has a positive impact on entrepreneurial orientation

Conscientiousness

Being conscientious implicates that an individual is an effective, efficient, hard worker. It could be argued that there are many difficulties setting up a new company. Streamlining the more essential processes often require much attention and work in the beginning phases of a company. The need to first focus on more essential company processes such as production, marketing, finance would thus take priority. And since managers/owners or founders often play an important role in running a company in the earlier stages, it can thus be argued that a manger who scores high on the conscientiousness trait is able to finish the essential company processes more quickly and thereafter put more emphasis on the EO of a firm. This is confirmed by Brandstätter (2011) who found some evidence of the conscientiousness trait being positively linked to a higher EO. As setting up a company puts a lot of responsibility on managers/owners/founders the following hypothesis was formed:

H3d Conscientiousness has a positive impact on entrepreneurial orientation

Agreeableness

Within the literature study, no direct link between agreeableness and EO was found. Based on the assumption that running a business entails situations which can upset both competitors and potentially employees, both key aspects of EO. the following hypothesis was thus formed:

H3e Agreeableness has a negative impact on entrepreneurial orientation

The link between Personality traits and market orientation

Market orientation refers to "the organization-wide generation, dissemination, and responsiveness to market intelligence" (Kohli & Jaworski, 1990. p.3)

Neuroticism

Being market oriented refers to the level and competence of a company (and for small companies, thus the manager/owner or founder) to accumulate and process information about current and potential customers as well as competitors. Being emotionally stable and not afraid of the challenges faced during these processes would arguably improve the likelihood of success. The following hypothesis was thus formed:

H4a Neuroticism has a negative impact on market orientation

Extraversion

Possessing the trait of extraversion directly implicates seeking stimulations as this trait encapsulates people who are assertive and active. The extraversion trait could lead to individuals within a firm being more likely to gather and process market data as this requires interaction with both current and new customers as well as finding information about competitors. Interacting with customers and other actors are actions that suit an individual who scores high on extraversion. The following hypothesis was thus formulated:

H4b Extraversion has a positive impact on market orientation

Openness to experience

Individuals who are less likely to be open to new experience can logically be more comfortable in a previously attained position. Market orientation revolves around seeking and using new information about all actors in a prescribed market. Being open to new experiences would thus implicate a higher interest in market analysis and the opportunities it brings. The following hypothesis was thus formulated:

H4c openness to experience has a positive impact on market orientation

Conscientiousness

The literature study conducted in this research was only able to find one article with a significant link between personality traits and MO. Kottika et al. (2020) found evidence of the positive link between conscientiousness and MO. Kotka et al. explained this by the essence of the conscientiousness trait, which indicates that an individual is an effective, efficient, and hard worker. Something which arguably be important when successfully gathering and processing information about both customers and competitions, a process which is inherently time-intensive. The following hypothesis was formed:

H4d Conscientiousness has a positive impact on market orientation

Agreeableness

Within the literature study, no direct link between Agreeableness and MO was found. Market oriented firms are firms who are aware of their customers' needs and wants. The situation of their competitors and the opportunities which arise from this analysis. As people who score high on the agreeableness trait highly value interpersonal relationships, the customers of smaller firms where this trait is present within managers, owners or founders would thus be treated with great respect and care. The competitor orientation of a firm could however be more difficult for an individual who scores high on agreeableness as this process could entail stepping on people's toes. This contradiction of the agreeableness personality trait in relation to MO thus complicates the formulation of the hypothesis. Within the context of the thesis, which focuses on smaller craft companies, the passion for the craft of managers/owners or founders is often an important motivator when running the business. Some sort of comradery with other individuals working in the same business can thus be expected. Following this line of logic, the benefit of agreeableness for customer orientation would weigh heavier. The following hypothesis was thus formed:

H4e Agreeableness has a positive impact on market orientation

The link between personality traits and performance

Performance was often measured by objective variables; most authors did comment on the importance of some subjective performance measures for smaller firms but found objective measures easier to compare. The literature chapter on performance will further elaborate on this concept and the discussion surrounding its measurability.

Neuroticism

Most of the articles found them hypothesized that owners, managers, or founders of firms who scored low on the neuroticism scale were achieving higher levels of performance and success. The direct link was made between low neuroticism and higher return of investment (Begley &

Boyd, 1987), higher growth and sales (Antoncic et al., 2018; Wijewardena et al., 2008), higher revenue (Gyimah et al., 2020; Sharma & Tarp, 2018) and overall performance (Brandstätter, 2011; Owens et al., 2013). This can partly be explained by the paper by Zhao et al. (2010), which found that low scores on neuroticism decreases the intention to establish a business as well as the performance. This could indicate that most individuals who score low on neuroticism are less likely to start or run a business. Another reason for these findings was provided by Brandstätter (2011) who indicated that emotional instability may increase the likelihood of avoiding performance goals. This would mean that these individuals are actively trying to avoid situations which would display some sort of failure in front of others. Following on the logic these implications, the following hypothesis was formed:

H5a Neuroticism has a negative impact on performance

Conscientiousness

Conscientiousness was found to positively influence growth and sales (Wijewardena et al., 2008), as well as general performance (Brandstätter, 2011; Farrington, 2012; Palmer et al., 2019; Stewart et al., 1999). Firms were also found to be more successful when the manager/owner or founder was conscientious through employee performance (Anwar et al., 2017). Firms whose managers/owners or founders scored high on the conscientiousness scale were found to be taking less financial risks (Kozubíková et al., 2017). The argumentation of these positive relations is similar to the arguments made for the relations between conscientiousness, MO and EO. Efficient, effective, and hard work is necessary for managers, owners and founders of smaller companies who are often responsible for a variety of tasks in which they may have limited interest, skill, or experience. Thus, the following hypothesis was formed:

H5b Conscientiousness has a positive impact on performance

Openness to experience

Relative to the previous two personality traits, the amount of literature which found links between performance related outcomes and openness to experience was less frequent but stronger. Farrington (2012) found evidence of increased business performance when a manager, owner or founder was open to new experiences, this was confirmed by Slavec et al. (2017). Increased revenue was also found to be partly caused by increased openness to experience (Sharma & Tarp, 2018). Indirect links with performance, such as through employee performance was also found (Anwar et al., 2017). This relationship might partly be explained by the same logic used for the neuroticism relation with performance by Zhao et al. (2010). Individuals who are not open to new experience might be less likely to start a new business in the first place, thus leading to more individuals who score high on openness to experience starting a new business. This does however not explain the reason for a relatively higher score openness to experience and performance. While a logical reason for this correlation is mostly speculative, it could be reasoned that the positively formulated hypotheses between openness to experience and EO & MO could partly explain the higher performance found in the literature study. The following hypothesis was thus formulated:

H5c openness to experience has a positive impact on performance

Extraversion

Direct links between extraversion of managers, owners or founders and performance was found (Brandstätter, 2011; Farrington, 2012; Owens et al., 2013). Ong & Ismail (2013) found that managers whose firm maintain a differentiation strategy to gain a competitive advantage have increased benefit when possessing the extraversion personality trait. The likelihood of wanting to experience new things might be a reason for this finding. Growth performance was also found to be positively influenced by extraversion (Gyimah et al., 2020). The contextual nature of the concept of performance complicates the logical substantiation of many potential reasons for the positive links found. One of the few logical reasons for the positive link between extraversion and performance might be the necessary interactions with other individuals as well as the unavoidable new situations faced when running a small company. The following hypothesis was thus formulated:

H5d Extraversion has a positive impact on performance

Agreeableness

From the literature study, only two studies were able to prove significant correlations between agreeableness and performance. Anwar et al. (2017) found that managers with high levels of agreeableness see an increase in employee job performance. Antoncic et al. (2018) found that managers, owners and founders who score high on agreeableness have decreased firm performance. Business tends to necessitate certain situations which might compromise personal relationships. Something which can be hard for people who score high on agreeableness. Agreeableness can have a positive influence on certain aspects of running a small business, such as employee job performance, as this often requires the maintenance of personal relationship. This is however a small factor compared to the overall responsibility of running a small company. The following hypothesis was thus formed:

H5e Agreeableness has a negative impact on performance

2.4 Micro, small and medium-sized enterprises

The most notable and main difference between micro, small and medium enterprises and bigger enterprises is their size. The European Commission provides a classification of several characteristics which determine the size of the firm. This is based upon a number of employees and the turnover or balance sheet total (European Commission, n.d.).

Table 9: Classification of firm size based on staff headcount, turnover and/or balance sheet total (European Commission, n.d.)

Company category	Staff headcount	Turnover	Balance sheet total
Micro	< 10	≤ € 2 M	≤€2 M
Small	< 50	≤ € 10 M	≤ € 10 M
Medium	< 250	≤ € 50 M	≤ € 43 M

While quantitative characteristics of a firm can help classify firms, it does not provide much insight into how smaller firms differ from their bigger counterparts. Carson further elaborated on this in his paper from 1990 in which he looked at the differences between small firms and bigger firms in more detail. Carson referred to several more qualitative characteristics provided by the Committee of Economic Development (CED) from the United States. The CED argued that a small firm must at least possess two of the following characteristics to be considered a small firm:

- 1. Management of the firm is independent. Usually, the managers are also the owners.
- 2. Capital is supplied, and the ownership is held by an individual or a small group.
- 3. The area of operations is mainly local, with the workers and owners living in one home community (an area in which a group of people lives). However, the market need not be local.
- 4. The relative size of the firm within its industry must be small when compared with the biggest units in the field. This measure can be in terms of sales volume, number of employees, or other significant comparisons.

The characteristics provided by de CED are, in essence, quite similar to the attributes/characteristics introduced by Schöllhammer & Kuriloff (1988). In their book, they argued that there were five unique attributes of a small firm compared to a larger firm: Independence, ownership, scope of operations and scale of operations.

The fifth element, which is not considered in the CED criteria is management style. It is believed that managers/owners of smaller firms perform their tasks in a more informal style while managers of bigger firms are often more professional in their management style (Matlay, 1999). Arguably, small firms tend to be more informal as employees better know each other. This more informal culture within a small firm can also be observed in the recruitment of new employees. Owner/managers in small firms often recruit new employees through family members, friends, and existing employees (Matlay, 1999).

Another unique feature of smaller firms is the distribution of tasks and functions performed by managers and employees. Managers often must fulfill multiple roles, which are, in bigger firms, done by different in-firm departments/employees. An example of this is marketing; while bigger firms often employ marketing specialists, managers of smaller firms tend to take on the marketing of a firm themselves, sometimes without any real knowledge or expertise. Marketing is especially interesting as it can be considered an important part of a firm's success. Carson (1990) found that small firm managers often perceive marketing as a cost which, in a resource-constrained situation, is often the last business discipline to be acquired in a growing firm. To fulfill the demands of a small firm managerial function's broad knowledge about multiple parts of running a company is often imperative. While such centralization of firm tasks can lead to easy goal alignment between different firm operations (such as finance, innovation, marketing), it can be disadvantageous when a manager or owner is underperforming in one of these aspects.

The power of managers/owners to make certain strategic decisions is also higher for smaller firms compared to bigger firm managers and owners who often need to make decisions to please shareholders. Smaller companies could thus experience more freedom when their primary goal is not success-oriented. Combined, the smaller scale, more freedom, and limited resources requires employing unique management styles which strongly leverage personal authority and creativity (Covin & Slevin, 1991)

Another typical characteristic of small firms is the limited impact small firms have on the market. While big corporations can use mass marketing, small firms' impact on media through advertising and publicity will be almost negligible (Carson, 1990). Consequently, small firms need to be more creative in their marketing strategies, the rise of social media has provided these firms with relatively easy access to both existing and new customers. It is, however, difficult to keep up with all the continuous development. Smaller firms often tend to stick to their own identity and ideas of using marketing strategies and are not able to benefit from these platforms as much as bigger firms with more specialists and capital (Taiminen & Karjaluoto, 2015).

Among the key characteristics of small firms, the important role and influence of the owner/manager of a firm are clear. These individuals can shape the organization in such a way that the focus on the consumer, market and innovation can partly be determined by their expertise and/or interest.

2.5 Performance

The performance of a firm can be measured from both objective variables as well as provided subjective variables. Other studies have suggested financial performance, growth, and customer retention as a measure of SMEs performance (Dyke et al., 1992; Powell and Dent-Micallef, 1997). Other ways to measure performance have been to include sales, employment, assets, market shares, physical outputs, and profits (Shepherd and Wiklund, 2009; Akinboade, 2015). Previous studies have indicated that the subjective measure of firm performance is more relevant to measuring SMEs' performance than the objective accounting data (Dess et al., 1997; Powell and Dent-Micallef, 1997). Smaller firms can have limited financial expertise, and this would also encapsulate difficulties and irregularities when processing and interpreting data. Inconsequent and incomplete data can make it more difficult for researchers to effectively compare these firms. Shepherd and Wiklund (2009) found sales performance to be the most popular indicator, followed by employment, assets, and profit. This finding is further supported by the review conducted by Achtenhagen et al. (2010), who found sales performance to be a popular indicator used to measure SME performance.

3. Conceptual framework

The conceptual framework (see figure 4) is based on the literature found in the theoretical background.

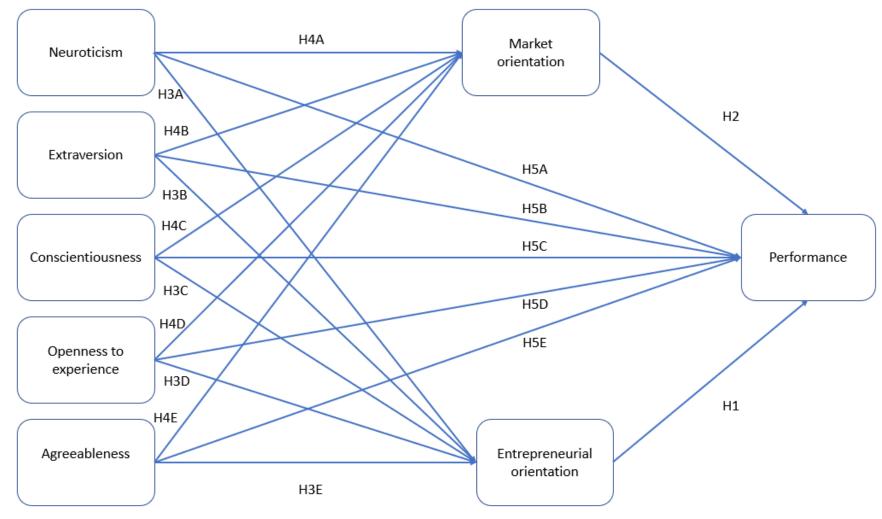


Figure 4: Conceptual framework

4. Method

In this research, a systematic literature study was performed to determine the relationship between EO, MO and performance. Possible links between the Big 5 personality traits and MO, EO and performance were also assessed in a systematic literature study. Insights into the relationships between these concepts assisted in forming the conceptual framework created in this research. To test the relationships from the conceptual framework, quantitative research with a cross-sectional design was used. A survey was conducted which aimed at measuring the concepts of the conceptual framework. Considerations regarding the number of questions as well as the context in which the questions were asked were made to be more relevant for the current research. These considerations resulted in the selection of the questions, which can be found in *Appendix I*.

4.1 Data collection

In this research, the survey data was collected from 77 beer brewers in the Netherlands. The data was collected via the "Stichting Erfgoed Nederlandse Biercultuur". This was done as a considerable amount of Dutch beer breweries are connected to this foundation. The questions were first formulated in English, whereafter they were translated into Dutch. This was done to increase the quality of responses since not all respondents may read English fluently. Spreading the survey via an email-campaign was thought to increase the number of respondents since the beer brewers arguably have more goodwill towards the foundation. After communication with this organization, an agreement was made to spread the survey via an introductory email. The survey was sent to 400 beer brewers, which resulted in 113 respondents. After the removal of incomplete surveys, 77 responses were analyzed. A survey question regarding the beer breweries' size was included to verify the scientific relevance of this research within the SME and micro firm literature (see figure 5). A question regarding the founding year of the breweries was asked for further insights into the selected target group (see figure 6). The survey was created in Qualtrics and the data was analyzed in SPSS.

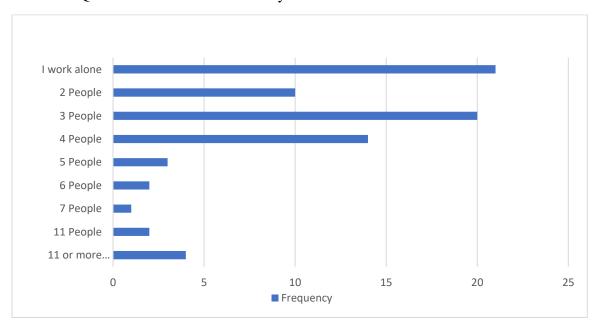


Figure 5: Number of employees of surveyed breweries

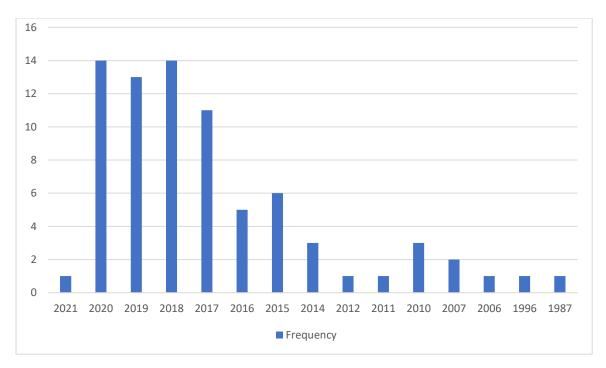


Figure 6: Year of brewery foundation of surveyed beer breweries

4.2 Operationalization

Performance

This research measures performance based on multiple indications before, during, and after the COVID-19 pandemic. To gain insight into the respondent's interpretation of performance, both subjective and objective measurements were included. From a data-analysis point of view, objective measurements are the most important for empirical analysis and subjective measurements for a good representation of reality (Lekovic & Maric, 2015). Furthermore, the subjective measurements enabled an even comparison of respondents who have less value for the performance-related aspects of their business, such as the earlier defined craft businesses. This can be done as questions were asked via a 5-point Likert scale and are formulated to be subjectively answered. No direct numbers or statistics were asked related to performance as these answers were deemed too private and sensitive, possibly resulting in a lower response rate among beer brewers. The questions intented to measure performance were formulated into three categories, performance before the COVID-19 pandemic, performance during the COVID-19 pandemic and (expected) performance after the COVID-19 pandemic to ensure results which could be analyzed.

Market orientation

The market orientation concept was based on a scale used by Sisay et al. (2021). This scale was chosen to be suitable as Sisay et al. (2021) defined the concept of MO similarly to the definition used in this research. The scale was adapted to the context of beer breweries. Internation coordination was removed as most the businesses could be placed in the micro scale. Additionally inter-functional coordination was assumed to be more informal for SMEs and more streamlined due to easier communication among employees.

Respondents rate the statements on a 5-point Likert scale anchored by 'Helemaal mee oneens' (1) versus 'Helemaal mee eens' (5). Which translates to 'strongly disagree (1) versus 'Strongly agree' (5).

Entrepreneurial orientation

The concept of entrepreneurial orientation consists of three components: Innovativeness, proactiveness and risk-taking. Verhees et al. (2011) subdivided innovativeness into creativity and skepticism as they found these concepts to be reliable underlying dimensions of innovativeness. Questions from the research of Verhees et al. (2011) were used to measure the concept of EO.

Respondents rate the statements on a 5-point Likertscale anchored by 'Helemaal mee oneens' (1) versus 'Helemaal mee eens' (5). Which translates to 'strongly disagree (1) versus 'Strongly agree' (5).

Big 5 personality questions

The questions asked to measure the big 5 personality concepts are generally agreed upon. These questions were translated into Dutch by Denissen et al. (2008), who looked at the validation of these translations. Of each category, three questions with a high corrected item-total correlation were chosen. When the correlations were similar, the inclusion of a single reverse item was prioritized to increase the variety of questions.

Respondents rate the statements on a 5-point Likert scale anchored by 'Helemaal mee oneens' (1) versus 'Helemaal mee eens' (5). Which translates to 'strongly disagree (1) versus 'Strongly agree' (5).

4.3 Data analysis

Measurement properties are assessed with factor analysis and reliability analysis (Cronbach's alpha) (see table 10). The factor score of the measures should result in a single component solution. Whether this is the case is decided based on three criteria: A scree plot with a steep decreasing line in between the first and second component's latent root and a relatively small decrease from the second component onwards. From the second component onward, the latent root should also decrease. The first component should also account for 55% of the accounted variances in the variables. When the variance is lower certain questions were removed.

Furthermore, all items should have at least an item loading of 0.6 before the items are rotated. Finally, the reliability of the measures was tested using a reliability analysis. Cronbach's alpha indications should be higher than 0.5. All measures can be found in Appendix I. For all measures, the factor scores are used for further analysis.

Table 10: Measurement scale properties

	# Items	Root second component	Variance	Lowest item holding	Cronbach's alpha
MO Customer orientation	4	0.84	54.908	0.605	0.599
MO Competitor orientation	5	0.858	54.96	0.605	0.758
EO Innovativeness	4	0.867	49.371	0.601	0.652
EO Pro-activity	3	0.667	57.954	0.737	0.635
EO Risk taking	3	0.646	66.399	0.725	0.744
B5 Extraversion	2	0.315	84.271	0.918	0.808
B5 Agreeableness	2	0.637	68.163	0.826	0.527
B5 Openness to experience	4	0.667	59.915	0.744	0.776
B5 Conscientiousness	3	0.569	64.47	0.792	0.697
B5 Neuroticism	3	0.461	73.689	0.835	0.821
Performance before COVID	5	0.868	61.101	0.689	0.836
Performance during COVID	5	0.765	68.966	0.761	0.886
Performance after COVID	5	0.717	60.499	0.743	0.833

After factor analysis, the three concepts measuring EO were combined into a new factor variable that measures EO altogether. Unfortunately, this was not done for MO as both the factor scores and the reliability analysis resulted in low scores when customer orientation and competitor orientation were combined.

5. Results

Influence of Big 5 personality traits, MO, and EO on performance

Table 11 shows the results of the regression analysis done to test all hypotheses. Performance was divided into three categories, performance before the COVID-19 pandemic, performance during the COVID-19 pandemic and (expected) performance after the COVID-19 pandemic.

Table 11: Influence of MO, EO and B5 on performance before, during and after COVID-19

Performance	Before COVID-19	During COVID-19	After COVID-19
MO Competitor Orientation	0.002	-0.137	0.146
MO Customer Orientation	-0.158	-0.043	-0.041
EO	-0.075	0.222	0.472**
B5 Extraversion	0.146	0.269*	0.096
B5 Conscientiousness	0.051	-0.109	-0.049
B5 Neuroticism	-0.028	-0.103	0.055
B5 Openness to Experience	0.376*	0.167	-0.036
B5 Agreeableness	-0.073	0.099	0.13
N	77	77	77
R squared	0.099	0.119	0.224
F	0.93 (0.498)	1.144 (0.346)	2.447 (0.022)

Notes: **p < 0.01 (two-tailed); *p < 0.05 (two-tailed); unstandardized coefficients are reported

The results show no significant relationship between the independent variables and a firm's performance before the COVID-19 pandemic (p=0.498). The regression analysis with the performance of firms during the COVID-19 pandemic as a dependent variable again resulted in no significant results (p=0.346).

Lastly, the expected performance after the COVID-19 pandemic was looked at. The regression analysis resulted in a significant predictive model (p=0.022) in which EO was the only significant predictor of performance after the COVID-19 pandemic (B=0.472 p =0.008). This indicates that an individual who is entrepreneurially oriented expects better performance after the COVID-19 pandemic. Since only one of the three performance measures has had EO as a predictor, H1 cannot be confirmed. Further analysis saw that none of the variables deteriorated the after-COVID-19 performance model.

The link between Big 5 personality traits and EO & MO

The table below shows the big 5 personality variables and their predictive values on the concepts of EO & MO. In this analysis, both the customer orientation and the competitor orientation parts of MO were considered.

Table 12 Influence of B5, MO and EO on MO, EO

	ЕО	MO Customer Orientation	MO Competitor Orientation
B5 Extraversion	-0.03	-0.02	-0.018
B5 Conscientiousness	0.145	0.084	-0.059
B5 Neuroticism	-0.048	0.077	-0.169
B5 Openness to Experience	0.691**	0.258	0.124
B5 Agreeableness	-0.229*	-0.016	0.230*
EO	X	0.049	0.269
MO Customer orientation	0.143	X	X
MO Competitor orientation	-0.018	X	X
N	76	76	76
R squared	0.611	0.11	0.209
F	15.493 (0.000)	1.449 (0.209)	3.756 (0.003)

Notes: **p < 0.01 (two-tailed); *p < 0.05 (two-tailed); unstandardized coefficients are reported

Openness to experience positively influences EO (B=0.731 p =0.000) while agreeableness has a negative influence on EO (B=-0.203 p =0.013). This confirms hypotheses H3C (positive influence of openness to experience on EO) and H3E (negative influence of Agreeableness on EO).

Agreeableness was found to have apositive influence on the competitor orientation (B=0.230 p=0.05). This finding provides evidence of hypotheses H4E (positive influence of agreeableness on MO). The model attempting to predict the customer orientation component of MO was however found to not be significant. Since MO consists of both customer- and competitor orientation it is not possible to confirm H4E.

6. Conclusion

This research has developed and tested a conceptual framework integrating literature on EO, MO, and the big 5 personality traits and performance with the aim of answering the following research question:

What managerial attributes influence the success of small and medium craft enterprises during the COVID-19 pandemic?

To answer this research question, this research investigated the effects of EO, MO and the big 5 personality traits on the performance of small craft beer companies in the Netherlands. The influence of the big 5 personality traits on the concepts of EO and MO was also tested. The results show that there was no strong link between any of the concepts mentioned above and performance. For craft beer breweries in the Netherlands, increased market orientation and entrepreneurial orientation does not result in higher performance. Big 5 personality characteristics also do not directly influence performance. H1, H2, and H5 were thus not accepted. These findings contradict the literature study done in this research, which suggested a positive influence of MO & EO on a firm's performance.

Hypotheses H3 & H4 were partly confirmed. For both EO & the competitor orientation aspect of MO, the openness to experience was a significant predictor. Agreeableness was also found to have a negative influence on entrepreneurial orientation. Both findings are in line with the findings of the literature study.

7. Discussion

General discussion of the results

The COVID-19 pandemic has brought new challenges to many firm owners and managers, specifically for small craft firms that rely on local sales instead of e-commerce. Overcoming these problems has, for many firms, been essential for the survival of the firm. This thesis has attempted to find a link between several marketing concepts and personality traits brought forward by managers and the performance of firms before, during, and after the COVID-19 pandemic. This was explicitly done within the context of smaller craft beer companies as this is a relatively new craft market in the Netherlands. To establish the current state of literature, a systematic literature study was done. From this literature study, a conceptual model was made, which then was distributed among Dutch beer breweries. Data was then analyzed to test whether the hypothesized links were present in the particular respondent group.

The results indicate that the entrepreneurial orientation, market orientation, and personality traits had no significant influence on the level of performance before and during the COVID-19 pandemic. This means that small Dutch breweries that focus on market orientation or are entrepreneurially orientated did not perform better than firms that did not integrate these concepts into their business before or during the COVID-19 crisis. Interestingly the level of EO has a positive influence on the expected performance of a firm after the COVID-19 pandemic. Since the expectations are hypothetical, this could be explained by several reasons. Firstly, managers who score high on EO could have more optimism regarding their abilities (Trevelyan, 2008). Secondly, higher levels of EO could also indicate more ambitions for the firm's future, while others might be less interested in growth and profit.

The link between Big 5 personality traits and the concepts of EO, competitor orientation, and consumer orientation were analyzed. The following results indicated that a significant predictive model was made for both the EO and competitor orientation part of MO. Variables that significantly influenced EO were the openness to experience and agreeableness, which confirms H3C and H3E. This is expected as the openness to experience closely resembles the ideas behind innovativeness, a key component of EO. The negative link between Agreeableness and EO was also proven. The arguments of the hypothesis, which were derived from logical reasoning, stated that someone who is entrepreneurially oriented is willing to proactively take risks while innovating, a process that is highly likely to upset some people, which is more difficult for people who score high on agreeableness.

Competitor orientation could be predicted using agreeableness. While hypothesis H4E did predict a positive relation between agreeableness and market orientation, this was based mainly on the assumption that the specific sector (craft breweries) mainly focused on the customer orientation part of MO. Therefore, the link between agreeableness and competitor orientation was logically deemed to be negatively linked, as was described in the literature study. In the context of Dutch beer breweries, competitor orientation was presumed to be less relevant as especially the local craft breweries in the Netherlands have seen huge growth in recernt years((Wild)Groei van Brouwerijen - Nederlandse Biercultuur, n.d.), which indicates limited competition. Therefore, it is surprising to see from the two components of MO that the one which was assumed would be less prevalent is found and the link found is positive instead of negative. A possible explanation for this positive link is the way beer brewers perceive their craft competitors. Due to the huge growth and limited competition other craft breweries may be seen as friends/ comrades, while the bigger beer breweries are seen as bigger corporate

businnes with money as a primary incentive. This is however mostly speculative. Formulation of the questions which measured competitor orientation was mainly focused on other craft beer brewers and could thus explain the positive link with agreeableness, which is useful when communicating with other craft beer breweries.

Additional analysis

An additional analysis was done during the data analysis, which included previous performance as a predictive variable. This could only be done for the during COVID-19 performance analysis and after COVID-19 performance analysis. The results indicated that previous and current performance was a significant predictor for performance (see table 13). These results can provide some answers as to the lack of proof found for the models of this thesis. As mentioned earlier in this thesis, craft enterprises distinguish themselves on several key ideas: Locality, sustainability, uniqueness, and passion for the craft (Jakob, 2013). This is no exception for many beer breweries that are highly passionate about brewing beer. The recent boom in both craft businesses and specialty beer popularity among consumers has seen an astronomical rise in beer breweries. More typical companies in more mature markets need to finetune all aspects of running a business. This is less important for the craft beer business, which has seen huge growth (see table 5)((Wild)Groei van Brouwerijen - Nederlandse Biercultuur, n.d.). This may eliminate the need for "key" marketing concepts such as entrepreneurship, a good marketing and business plan. The lack of evidence for the highly wellestablished links between EO, MO and performance can thus partly be explained by the novelty state of the craft beer market and the lack of the "natural" selection within the business world, which normally favors business-savvy entrepreneurs.

Table 13: Influence of MO, EO, B5 and performance before and during COVID-19 on performance during and after COVID-19

De eferment	During COVID-	After the
Performance	19	COVID-19
MO Competitor Orientation	-0.137	0.208
MO Customer Orientation	-0.029	0.025
EO	0.228	0.394**
B5 Extraversion	0.256	-0.069
B5 Conscientiousness	-0.114	-0.014
B5 Neuroticism	-0.1	0.11
B5 Openness to Experience	0.133	-0.223
B5 Agreeableness	0.106	-0.011
Performance before Corona	0.091	0.295**
Performance during Corona		0.455**
N	76	76
R squared	0.126	0.506
F	1.074 (0.394)	6.761 (0.000)

Notes:**p < 0.01 (two-tailed); *p < 0.05 (two-tailed);unstandardized coefficients are reported

7.1 Managerial implications

There are no managerial attributes that significantly influence the success of small and medium craft enterprises. The additional data analysis suggests that only the previous performance is a significant predictor for future performance. What does this finding mean for small beer breweries and their managers? A potential reason for this finding might be the lack of competition in the craft beer industry. From figure 6, the foundation year of beer breweries displays this recent trend in popularity. The immense increased popularity could indicate that there is currently not much competition in the beer brewery business. Thus making the standard success factors such as MO, EO, and some personality traits less relevant. If the beer brewery business would, in the future, mature and potentially saturate, the beer breweries who have put more focus on these concepts may experience some benefits and stay ahead of their competition. This could be as simple as determining precisely what the customers want and why they are coming to a specific beer brewery.

7.2 Scientific implications

The scientific implications of this research focus mainly on the discrepancy between the literature found and the results of this research. Relatively few of the hypotheses were proven, thus indicating something unique about either the craft business or the beer brewery business in the Netherlands. The uniqueness of the craft business might indicate that conventional business strategies and concepts are, and will be, less relevant for craft businesses. Interestingly there has to be some reason for their success; indications of these were mentioned in literature and can be researched in more detail as craft businesses also see a rise in popularity.

7.3 Limitations of research

This research has several limitations which will now be discussed: First of all, the number of respondents was satisfactory considering the total number of breweries in the Netherlands. However, due to the respondent selection process, it is impossible to say whether the respondents were representative of the entirety of Dutch beer breweries. Therefore, more respondents may have helped with finding more significant results. This could, however, not be the case as the respondent group is relatively uniform.

Furthermore, the data collection method has seen the necessity to make some compromises regarding the data collected. A shorter survey results in more responses, a selection of questions was thus made to increase the number of responses. A concrete example is the Big 5 personality trait question which was, per trait, reduced from 8 to 3. Reliability and factor analysis saw an overlap between extraversion and openness to experience. The selected questions were chosen based on the Dutch translations' internal consistency and external validity (Denissen et al., 2008). Future research might attempt to include more than three questions per personality trait.

Furthermore, the lack of literature regarding craft businesses may have prevented some underlying characteristics and dynamics from being included in the framework and setup of this research.

Lastly, the interpretation of the survey questions was checked by a local craft brewery in Wageningen. More qualitative analysis concerning the interpretation of the questions compared to their intended measurement may have increased the internal validity of the findings.

7.4 Suggestions for future research

Future research could focus on understanding what caused the results presented in this study. Is the beer craft business in the Netherlands in a novelty stage? Did this result in people successfully running a brewery without integrating core concepts such as EO and MO into their business? Or are the concepts of MO and EO less important for craft businesses or, more particularly, the beer craft business? More qualitative research might uncover the motivations and reasoning behind the apparent lack of interest or knowledge regarding the established marketing tools. Future research could also focus on whether specific characteristics of craft companies might explain the performance of these companies. Furthermore, the concept of organizational capabilities was found in the literature studies. However, in the literature study, the relevance of the organizational capabilities of a firm within the context of this research was deemed to be low as small firms often have fewer difficulties with streamlining processes due to their size. However, future research could attempt to determine whether this assumption is valid and see to what extent the concept of organizational capabilities is relevant in craft businesses.

Literature regarding craft companies is still limited, but the mentality that focuses on doing things differently than 'more established companies might indicate why no clear link was found. Future research could focus on seeing whether this phenomenon is also present in other more matured craft industries.

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Appendix I

Questions to measure performance

Winstgevendheid

- 1. De winst die ik voor de COVID-19 crisis behaalde voldeed aan mijn doelstellingen
- 2. De winst die ik tijdens de COVID-19 crisis behaal voldoet aan mijn doelstellingen
- 3. Ik verwacht dat de winst die ik na de COVID-19 crisis ga behalen zal voldoen aan mijn doelstellingen
- 4. Voor de COVID-19 crisis behaalde ik veel winst
- 5. Tijdens de COVID-19 crisis behaal ik veel winst
- 6. Ik verwacht dat ik na de COVID-19 crisis veel winst ga behalen

Groei van bedrijf

- 7. Mijn bedrijf groeide voor de COVID-19 crisis.
- 8. Mijn bedrijf groeit tijden de COVID-19 crisis.
- 9. Ik verwacht dat mijn bedrijf zal groeien na de COVID-19 crisis.

Klanttevredenheid

- 10. Klanten waren tevreden over onze producten voor de COVID-19 crisis.
- 11. Klanten zijn tevreden over onze producten tijdens de COVID-19 crisis.
- 12. Ik verwacht dat klanten tevreden zullen zijn over onze producten na de COVID-19 crisis.

Klanten bereik

- 13. Voor de COVID-19 crisis kregen we veel nieuwe klanten
- 14. Tijden de COVID-19 crisis krijgen we veel nieuwe klanten
- 15. Ik verwacht dat we na de COVID-19 crisis veel nieuwe klanten krijgen

Subjectieve prestaties

- 16. Voor de COVID-19 crisis voldeden de prestaties van mijn bedrijf aan mijn doelstellingen
- 17. Tijdens de COVID-19 crisis voldoen de prestaties van mijn bedrijf aan mijn doelstellingen
- 18. Ik verwacht dat na de COVID-19 crisis de prestaties van mijn bedrijf aan mijn doelstellingen voldoen

Questions to measure Market orientation

Klantgerichtheid (Customer orientation):

Algemene vragen

1. Voor mijn bedrijf is klanttevredenheid een prioriteit

- 2. Als bedrijf kijken we continue of we aan de behoeftes en wensen van de klant voldoen
- 3. We vragen onze klanten regelmatig of ze tevreden zijn met onze producten

Specifieke vragen

- 4. We gebruiken de feedback van klanten bij het ontwikkelen van nieuwe bieren.
- 5. We bespreken met bierliefhebbers welke nieuwe bieren ze graag zouden willen

Concurrentie gerichtheid (competitor orientation):

Algemene vragen

- 6. We reageren snel op acties van concurrenten die onze verkopen kunnen verstoren
- 7. We vragen klanten naar hun mening over bieren van andere brouwers
- 8. Als bedrijf zoeken we specifiek naar klanten die enthousiast zijn over ons product (denk hierbij aan het soort bier maar ook het verhaal dat erachter zit)

Specifieke vragen

- 9. We houden goed in de gaten wat andere (lokale) bierbrouwerijen op de markt doen
- 10. Samen met vaste klanten en andere bierliefhebbers praten we over andere brouwerijen die ook lokaal verkopen

Questions to measure entrepreneurial orientation

Innovativiteit

Scepticisme

- 1. Ik ben terughoudend bij het introduceren van nieuwe ideeën totdat ik zie dat ze goed werken voor andere bedrijven.
- 2. Ik wacht tot ik andere bedrijven iets nieuws zie gebruiken voordat ik het zelf overweeg.

Creativity

- 3. Ik beschouw mezelf als creatief en origineel in mijn denken en doen.
- 4. Ik ben een **vindingrijk** persoon

Proactiviteit

- 5. Ik ben goed in het omzetten van problemen naar nieuwe mogelijkheden
- 6. Ik zie zakelijke kansen voor mijn bedrijf eerder dan andere mensen
- 7. Ik ben constant op zoek naar nieuwe manieren om mijn bedrijf te verbeteren

Risico nemen

8. Ik neem het zekere voor het onzekere (R)

- 9. Ik neem graag grote financiële risico's
- 10. Ik ben bereid hoge financiële risico's te nemen wanneer ik bovengemiddelde winst kan verwachten

Note: (R)= reversed item.

Questions to measure Big 5 personality

Ik zie mezelf als iemand die:

Extraversie (Extraversion)

- 1. Spraakzaam is
- 2. Doorgaans stil is (R)
- 3. Veel enthousiasme opwekt

Vriendelijkheid/Inschikkelijkheid (Agreeableness)

- 4. Soms grof tegen anderen is (R)
- 5. Attent en aardig is voor bijna iedereen
- 6. Vergevinggezind is

Openheid/Intellectualiteit (Openness to experience)

- 7. Graag nadenkt, met ideeën speelt
- 8. Vindingrijk is
- 9. Origineel is, met nieuwe ideeën komt

Nauwgezetheid (Conscientiousness)

- 10. Grondig te werk gaat
- 11. Volhoudt tot de taak af is
- 12. Doorgaans geneigd is tot slordigheid (RMO_)

Persoonlijke instabiliteit (Neuroticism)

- 13. Ontspannen is, goed met stress kan omgaan (R)
- 14. Zich veel zorgen maakt
- 15. Gemakkelijk zenuwachtig wordt

Note: (R)= reversed item.

Appendix II

In hoeverre bent u het eens met de onderstaande stellingen? Geef antwoord op een schaal van 1 (helemaal mee oneens) tot 5 (helemaal mee eens).

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Ik zie klanttevredenheid als een prioriteit	0	0	0	0	0
Ik kijk continue of we als brouwerij aan de behoeftes en wensen van de klant voldoen	0	0	0	0	0
Ik vraag onze klanten regelmatig of ze tevreden zijn met mijn producten	0	0	0	0	0
lk gebruik de feedback van de klanten bij het ontwikkelen van nieuwe bieren	0	0	0	0	0
Ik bespreek met vrienden en kennissen welke nieuwe bieren onze klanten graag zouden willen zien	0	0	0	0	0
Ik reageer snel op acties van concurrenten die onze markt kunnen verstoren	0	0	0	0	0
lk vraag mijn klanten naar hun mening over bieren van andere brouwers	0	0	0	0	0
Als bedrijf zoeken we specifiek naar klanten die enthousiast zijn over ons product	0	0	0	0	0
Ik houd goed in de gaten wat andere (lokale) bierbrouwerijen op de markt doen	0	0	0	0	0
Samen met vaste klanten en andere bierliefhebbers praat ik over andere bierbrouwerijen die ook lokaal verkopen	0	0	0	0	0

In hoeverre bent u het eens met de onderstaande stellingen? Geef antwoord op een schaal van 1 (helemaal mee oneens) tot 5 (helemaal mee eens).

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Ik ben terughoudend bij het introduceren van nieuwe dingen totdat ik zie dat ze goed werken voor andere bedrijven	0	0	0	0	0
Ik wacht tot ik andere brouwerijen iets nieuws zie gebruiken voordat ik het zelf overweeg	0	0	0	0	0
Ik beschouw mezelf als creatief en origineel in mijn denken en doen	0	0	0	0	0
Ik ben een vindingrijk persoon	0	0	0	0	0
Ik ben goed in het omzetten van problemen naar nieuwe mogelijkheden	0	0	0	0	0
Ik ben in staat om zakelijke kansen eerder te zien dan andere mensen	0	0	0	0	0
Ik ben constant op zoek naar nieuwe manieren om mijn brouwerij te verbeteren	0	0	0	0	0
Ik neem liever veilige keuzes dan dat ik spijt krijg van risicovolle keuzes	0	0	0	0	0
Ik neem graag grote financiële risico's	0	0	0	0	0
Ik ben bereid hoge financiële risico's te nemen wanneer ik bovengemiddelde winst kan verwachten	0	0	0	0	0

In hoeverre bent u het eens met de onderstaande stellingen? Geef antwoord op een schaal van 1 (helemaal mee oneens) tot 5 (helemaal mee eens).

Ik zie mezelf als iemand die:

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Spraakzaam is	0	0	0	0	0
Doorgaans stil is	0	0	0	0	0
Veel enthousiasme opwekt	0	0	0	0	0
Soms grof tegen anderen is	0	0	0	0	0
Attent en aardig is voor bijna iedereen	0	0	0	0	0
Vergevinggezind is	0	0	0	0	0
Graag nadenkt, met ideeën speelt	0	0	0	0	0
Vindingrijk is	0	0	0	0	0
Orgineeel is, met nieuwe ideeën komt	0	0	0	0	0
Grondig te werk gaat	0	0	0	0	0
Volhoudt tot de taak af is	0	0	0	0	0
Doorgaans geneigd is tot slordigheid	0	0	0	0	0
Ontspannen is, goed met stress kan omgaan	0	0	0	0	0
Zich veel zorgen maakt	0	0	0	0	0
Gemakkelijk zenuwachtig wordt	0	0	0	0	0

De volgende vragen gaan over uw brouwerij. In hoeverre bent u het eens met de onderstaande stellingen? Geef antwoord op een schaal van 1 (helemaal mee oneens) tot 5 (helemaal mee eens).

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
De winst die ik voor de COVID-19 crisis behaalde voldeed aan mijn doelstellingen	0	0	0	0	0
De winst die ik tijdens de COVID-19 crisis behaal voldoet aan mijn doelstellingen	0	0	0	0	0
Ik verwacht dat de winst die ik na de COVID-19 crisis ga behalen zal voldoen aan mijn doelstellingen	0	0	0	0	0

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens		elemaal ee eens
Voor de COVID-19 crisis behaalde ik veel winst	0	0	0	0		0
Tijdens de COVID-19 crisis behaal ik veel winst	0	0	0	0		0
Ik verwacht dat ik na de COVID-19 crisis veel winst ga behalen	0	0	0	0		0
	Helemaa mee oneens	l Mee oneen	s Neutra		Vlee eens	Helemaal mee eens
Mijn brouwerij groeide voor de COVID-19 crisis.	0	0	0		0	0
Mijn brouwerij groeit tijden de COVID-19 crisis.	0	0	0		0	0
Ik verwacht dat mijn brouwerij zal groeien na de COVID-19 crisis.	0	0	0		0	0
	Helemaal mee oneens	Mee oneens	Neutraa	Me al eer		Helemaal mee eens
Klanten waren tevreden over onze producten voor de COVID-19 crisis.	mee	Mee	Neutraa O		ns	
	mee oneens	Mee oneens		al eer	ns)	mee eens
COVID-19 crisis. Klanten zijn tevreden over onze producten tijdens de	mee oneens	Mee oneens	0	al eer	ns)	mee eens
COVID-19 crisis. Klanten zijn tevreden over onze producten tijdens de COVID-19 crisis. Ik verwacht dat klanten tevreden zullen zijn over onze	mee oneens	Mee oneens	0	al eer C	ns)	mee eens
COVID-19 crisis. Klanten zijn tevreden over onze producten tijdens de COVID-19 crisis. Ik verwacht dat klanten tevreden zullen zijn over onze	mee oneens	Mee oneens	0	M eeal eee	ns)))))	mee eens O O Helemaal
COVID-19 crisis. Klanten zijn tevreden over onze producten tijdens de COVID-19 crisis. Ik verwacht dat klanten tevreden zullen zijn over onze producten na de COVID-19 crisis.	mee oneens	Mee oneens Mee oneens	O O	Meal ee	ns)))) leee	mee eens O Helemaal mee eens

	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Voor de COVID-19 crisis voldeden de prestaties van mijn bedrijf aan mijn doelstellingen	0	0	0	0	0
Tijdens de COVID-19 crisis voldoen de prestaties van mijn bedrijf aan mijn doelstellingen	0	0	0	0	0
Ik verwacht dat na de COVID-19 crisis de prestaties van mijn bedrijf aan mijn doelstellingen voldoen	0	0	0	0	0