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English abstract

The craft brewing industry in the United States has grown significantly in recent years, yet in the German market the growth of craft brewing has been slow despite heavy beer consumption. Through empirical inquiry this paper uses market entry theory to show how the specifics of the craft brewing industry influence market entry decisions for U.S. craft breweries entering Germany. A case study on Stone Brewing, the only American craft brewery to establish a facility in Germany, is used to assess real-world application. Using the Eclectic Framework as a base for theoretical discussion, this paper examines strategic, environmental, and transaction variables in order to determine the best mode of entry for a craft brewery entering the German market. A thorough evaluation of the collected data suggests that a wholly owned subsidiary is the best entry mode, the same used by Stone Brewing. It is likely that a combination of company culture and management style is the reason that it is the only American craft brewery to have entered the German market to date, as barriers to entry and the local nature of craft breweries have plausibly dissuaded others thus far.

Zusammenfassung

Die Craft-Brewing-Industrie in den Vereinigten Staaten ist in den letzten Jahren stark gewachsen, aber auf dem deutschen Markt ist ihr Wachstum trotz des hohen Bierkonsums langsam. Durch empirische Untersuchungen wird in dieser Arbeit anhand der Markteintrittstheorie gezeigt, wie die Besonderheiten der Craft-Bierbrau-Industrie die Markteintrittsentscheidungen für in Deutschland eintretende amerikanische Craft-Brauereien beeinflussen. Als Fallstudie wird Stone Brewing herangezogen, welche die einzige amerikanische Craft-Brauerei ist, die eine Einrichtung in Deutschland errichtet hat. Mit dem Eclectic-Framework als Grundlage werden Strategie-, Umwelt- und Transaktionsvariablen untersucht, um die beste Eintrittsform für eine Craft-Brauerei in den deutschen Markt zu bestimmen. Eine gründliche Auswertung der gesammelten Daten zeigt, dass eine hundertprozentige Tochtergesellschaft der beste Einstiegsmodus ist, welcher auch von Stone Brewing verwendet wurde. Es ist wahrscheinlich, dass eine Kombination aus Unternehmenskultur und Managementstil der Grund dafür ist, dass Stone Brewing die einzige amerikanische Craft-Brauerei ist, die bisher in den deutschen Markt eingetreten ist, der hohe Markteintrittsbarrieren aufweist und von lokalen Craft-Brauereien dominiert wird.

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IV. List of abbreviations

ABA: American Brewers Association

AB-InBev: Anheuser-Busch InBev

EU: European Union

GDP: Gross Domestic Product

JV: Joint Venture

MNC: Multinational Corporation

N.D.: No Date

OLI: Ownership, Location, Internationalization

TCA: Transaction Cost Analysis

TRIPS: Trade-Related Aspects of Intellectual Property Rights

U.S.: United States

WOS: Wholly Owned Subsidiary

1 Introduction

There is a wealth of research on the topic of market entry, and through a variety of theories one thing remains relatively constant: Market entry mode choice is extremely important for the success of a venture (Jiang et al., 2007; Brouthers and Hennart, 2007; Canabal and White, 2008; Liang et al., 2009; Pehrsson, 2008; Sarala and Sumelius, 2005; Anderson and Gatignon, 1986; Wind and Perimutter, 1977).

Although research has identified general principles for market entry strategies (Jiang et al., 2007; Canabal and White, 2008; Brouthers and Hennart, 2007; Pehrsson, 2008; Berbel-Pineda and Ramírez-Hurtado, 2011; Pederson and Welch, 2002; Pedersen et al., 2002), the strategies vary significantly from industry to industry (Raff et al., 2012). Besides the obvious differences in barriers to entry that different types of industries face (Karakaya and Stahl, 1989), data strongly suggests that market entry strategy choice varies notably both across and within industries (Raff et al., 2012).

Despite the noted differences in market entry decisions between industries, there is a large information gap on market entry strategies for the craft brewing industry, specifically with regards to the German market. This is particularly important at this point in time, as craft beer has recently become the fastest growing beer segment (Brewers Association, 2016), and Germany is one of the most important markets for beer in Europe (Ascher, 2012; Adams, 2006; Depenbusch et al., 2018). The craft beer industry is particularly interesting because it exhibits many differences from standard industries, specifically in the barriers to entry. These differences include limitations of market entry types, as well as broader than usual taste variance, which clashes with legal and cultural resistance to innovation (Adams, 2006; McCluskey and Shreay, 2012; Depenbusch et al., 2018).

Craft beer does not ship easily, as it is a living product and the quality degrades in transport. Most craft beers are still developing when in casks and must be handled extremely gently and kept at very specific temperatures in order for taste and quality to remain consistent. The risks involved in transporting the product limit the market entry strategies for craft breweries significantly, differentiating it from standard industries in the limitation of export based entry (Ascher, 2012).

Unlike mainstream beer production, the tastes of craft beer vary drastically, as well as the means and ingredients used to produce them (Garavaglia and Swinnen, 2018). Many local markets, specifically in Germany, are resistant to innovation due to long history of traditions like the longstanding Reinheitsgebot - the German beer purity law limiting beer to only four ingredients (van Tongeren, 2011; Garavaglia and Swinnen, 2018). This leads to legal barriers as well as cultural barriers, creating a very challenging environment for market entry, as global strategies must often be pursued in a highly fragmented and resistant market (Hill et al., 1990).

This paper contributes to current literature by investigating the craft beer industry based on general market entry frameworks, particularly asking the question of how the specifics of the craft brewery industry influences market entry decisions. This paper is therefore making an empirical investigation on how market entry theory coincides with the market of craft brewing in Germany. A case study on Stone Brewing, an American craft brewery that has recently established a facility in Berlin, examines how this theory is working in practice. The paper is broken down into a discussion of market entry theory, which covers market entry types and commonly used theories, the eclectic theory of the choice of international entry mode, the German craft beer industry and the Eclectic Framework, and a case study on Stone Brewing. In answering the question of how market entry theory differs in application to craft breweries this paper addresses why so few foreign craft breweries have entered the German market, and how craft breweries can successfully do so in the future.

2 Market Entry Theory

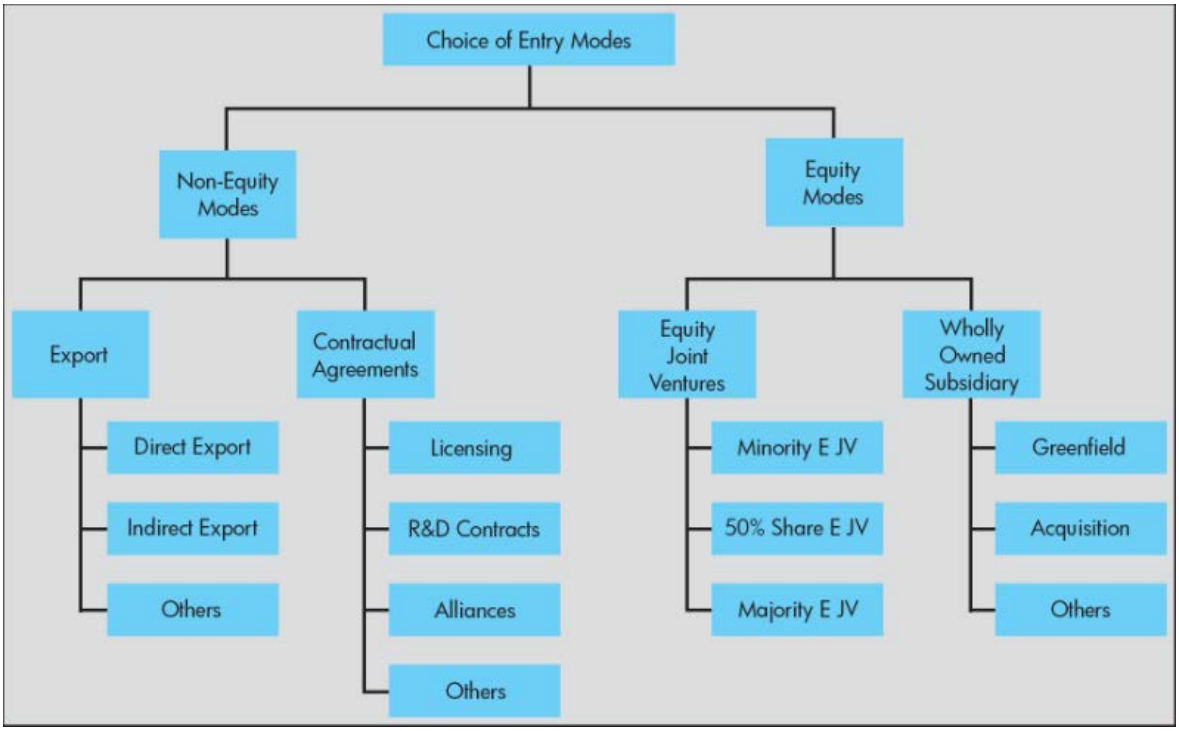
The field of market entry contains numerous theories, many of which contradict one another. The following section does not attempt to outline the entirety of the field, but rather highlight some basic theory to be referenced in further sections when examining the craft beer industry. In the craft beer industry, as in all other industries, international entry mode research is extremely important. This is backed by Brouthers and Hennart (2007), who point out that entry mode is important due to significant performance implications of setting correct boundaries, quoting further research from Pedersen et al. (2002) which shows that after an entry mode is established it is difficult to change or correct, which can

easily lead to long-term consequences for a firm. Brouthers and Hennart (2007) further assert that there is no one type of entry mode that is superior to other entry modes, however, firms that use the mode choices that are theoretically predicted to be ideal for their specific industry outperform firms that enter using other entry mode choices. This means that there is no golden mode choice that a firm can rely on, but rather market entry research must be taken into account to optimize a decision.

2.1.1 Market Entry Types

Market entry mode is defined as "a structural agreement that allows a firm to implement its product market strategy in a host country either by carrying out only the marketing operations (i.e., via export modes), or both production and marketing operations there by itself or in partnership with others (contractual modes, joint ventures, wholly owned operations)" (Sharma and Erramilli, 2004). Although there are disagreements on the specifics of how mode choices should be organized, research tends to agree on the general modes of entry a firm can choose to enter a market. Figure 1 shows the hierarchical model of choice of entry modes (Pan and Tse, 2000), which shows the choices broken down into equity and non-equity modes. Some research breaks entry modes down into these two categories because of how much they differ in investment requirements and amount of control needed (Pan and Tse, 2000; Canabal and White, 2008). Namely, equity modes require higher levels of resource commitment and therefore higher levels of control, but have higher profit potential and lower flexibility than non-equity modes (Kaynak et al., 2007; Hill et al., 1990; Canabal and White, 2008; Pan and Tse, 2000).

Figure 1: Hierarchical model of choice of entry modes



(Pan and Tse, 2000, p.538)

On the other hand, researchers like Sharma and Erramilli (2004) break down the market entry decision differently, arguing that every firm has two possibilities - carry out the business functions by themselves with a wholly owned subsidiary, or work together with another firm via contractual modes like licensing or joint ventures. For international market entry with craft brewing, investments (like mergers, acquisitions, Greenfield investments, or joint ventures) and licensing agreements are the usual modes of entry because of high costs of shipping beer long distances, with world trade in beer being only around five% of overall world production (Ascher, 2012). Therefore, the decision of market entry will be broken down to the basic decision between licensing, joint venture, and wholly owned subsidiaries for this paper.

2.1.2 Licensing

Licensing is defined as "the transfer of patented information and trademarks, information and know-how, including specifications, written documents, computer programs, and so forth, as well as information needed to sell a product or service, with respect to a physical territory" (Mottner and Johnson, 2000; Kotabe et al., 1996; Capon, 1987; Contractor,

1985). Specifications like limits to the scope of the licensee, exclusivity, and form of payment vary and are decided upon in the agreement (Hennart, 1988). The decision of exclusivity, for example, is based on factors like consideration of monopoly rents, technology transfer costs, transaction costs, the nature of the technology being licensed, the environment of the foreign market, and the characteristics of the firms involved (Jiang et al., 2007).

International licensing is often chosen when a firm wants to enter a foreign market to obtain a global presence but wants to avoid resource commitment and the greater risks involved in foreign direct investment (Hennart, 1988; Mottner and Johnson, 2000). This could be for reasons like high domestic production costs or high costs of learning about the foreign market (Carstairs and Welch, 1982; Buckley and Casson, 1998; Mottner and Johnson, 2000). However, there are potential risks to licensing that a firm can face, like host country economic and legal factors, opportunistic behavior, opportunity costs to making the wrong choice in licensing partners and technology/know-how valuing, quality risks, production risks, payment risks, contract enforcement risks, and marketing control risks (Buckley and Casson, 1998; Mottner and Johnson, 2000).

2.1.3 Joint Venture

A joint venture is when two or more firms share joint ownership and control over a venture, with pooled assets in a common and separate organization (Kogut and Singh, 1988). Similarly, an international joint venture is the same as above, but with at least one of the firms having its headquarters outside of the country where the venture is operating (Shenkar and Zeira, 1987). Beamish and Lupton (2009) argue that the most important drives for a firm to enter into a joint venture are to enter new markets while combining knowledge, capabilities, or other resources. Economies of scale, the increasing global environment, and the reduction of political risk are also key drivers for firms choosing a joint venture (Hennart, 1988). Combining complementary strengths and assets also has a synergy affect, giving a joint venture higher value than the firms would gain from a contractual agreement, while also sharing risks (Reuer and Koza, 2000; Kaynak et al., 2007).

Joint ventures also come with potential problems stemming from coordination. Beamish and Lupton (2009) maintain that the largest challenge is the managerial aspect of being owned by two or more parties, as partners may have varying opinions on leading issues, policies, and business practices. Further, if partners have incongruent goals it will often lead to a failure of the joint venture (Beamish and Lupton, 2009). Lastly, Inkpen and Beamish (1997) state that joint ventures are relatively unstable because once one or both of the partners acquire enough knowledge for the partnership to be obsolete it will fall through.

2.1.4 Wholly Owned Subsidiary

For a wholly owned subsidiary the largest entry decision to be made is between a Greenfield investment and an acquisition. A Greenfield investment is an investment where a new facility is started from the ground up, while an acquisition is acquiring a facility in full or purchasing enough stock in an existing facility that control is gained (Sarala and Sumelius, 2005; Kogut and Singh, 1988; Barkema and Vermeulen, 1998; Capron, 1999).

There are several pros and cons to all types of wholly owned subsidiaries. On one hand, with acquisitions a firm can quickly establish a local presence, however cross-cultural differences and technological disparities after the acquisition can cause failures in integration (Dikova and van Witteloostuijn, 2007; Child et al., 2001; Shimizu et al., 2004). With Greenfield investments, on the other hand, a firm can preserve and replicate its corporate culture, but they take longer to establish, as well as to build local business networks (Dikova and van Witteloostuijn, 2007). A wholly owned subsidiary can offer a much higher return on investment than other entry modes, but this extra control and potential return comes with less flexibility and higher risk (Hill et al., 1990; Kaynak et al., 2007).

2.2 Theoretical Perspectives of Market Entry

There are numerous theoretical perspectives on market entry, some of which are more utilized than others. Brouthers and Hennart (2007) found that transaction cost analysis (TCA), the resource-based view, institutional theory, and Dunning's Eclectic Framework were the most commonly applied theories used to explain market entry, accounting for

nearly 90% of all published studies that they reviewed at the time. For this reason, these are the theories that are briefly explained in this section.

2.2.1 Transaction Cost Analysis

The Transaction Cost Analysis (TCA) is based around the concept that managers suffer from bounded rationality, and potential partners may act opportunistically if given the chance (Brouthers and Hennart, 2007; Brouthers et al., 2003; Brouthers et al., 2008). Transaction cost economics therefore focus on creating a governance structure to minimize the transaction costs that stem from the uncertainties related to protecting a firm's assets, investing in new markets, and monitoring the behavior of partners (Brouthers et al., 2003; Brouthers et al., 2008; Hennart, 1988, 1989; Williamson, 1979, 1985; Pehrsson, 2008; Canabal and White, 2008). TCA research states that three core transaction cost factors influence international entry mode choice: behavioral or internal uncertainties like free-riding, environmental or external uncertainties, and asset specificity (Anderson and Gatignon, 1986; Zhao et al., 2004). Brouthers et al. (2008) argue that aligning mode choice decisions with the above attributes leads to superior subsidiary performance.

2.2.2 Resource-Based View

The Resource-Based View is focused on the exploitation, acquisition, and development of resources (Pehrsson, 2008). It states that firms must develop unique resources to exploit in foreign markets, or use foreign markets to develop or acquire new resource-based advantages (Brouthers and Hennart, 2007; Luo, 2002; Madhok, 1997; Tsang, 2000). The theory argues that for a firm to be sustainable the competitive advantages it develops or attains must be valuable, rare, and imperfectly imitable, with no commonly available substitutes **(**Brouthers and Hennart, 2007; Barney, 1991; Canabal and White, 2008).

2.2.3 Institutional Theory

The Institutional Theory assesses how the institutional context defined by rules, norms, and values affects the way a firm enters and operates in a market (Canabal and White, 2008; Davis et al., 2000; Meyer and Nguyen, 2005). The theory states that the institutional environment of a country affects a firm's boundary choices. It argues that this is due to the environment reflecting the "rules of the game" that firms must participate in within a particular market (Brouthers and Hennart, 2007). Brouthers (2002) reasons that this is

caused by embedded isomorphic pressures that influence the decision makers' entry mode selection, because firms entering a new market mimic the actions of local competitors in a host country to legitimize their operations and market presence (Canabal and White, 2008; Davis et al., 2000; Kostova and Zaheer, 1999; Yiu and Makino, 2002; Brouthers, 2002). While research in this area usually concentrates on either the institutional environments in the host country or differences between home and host country, some research also focuses on home country institutional influences (Brouthers and Hennart, 2007; Pan, 2002; Erramilli, 1996).

2.2.4 Eclectic Framework

The Eclectic Framework, known as Dunning's Eclectic Framework or OLI (Ownership, Location, Internalization) framework, was introduced originally by John Dunning in 1977 and is also among the most frequently applied international entry mode choice studies (Brouthers and Hennart, 2007). Dunning argues that entry mode choice consists of three factors: (1) ownership or firm-specific advantages, which convey control, costs, and benefits of inter-firm relationships, (2) location advantages, which relate to resource commitment, availability, and costs of resources, and (3) internalization advantages, like reducing transaction and coordination costs (Canabal and White, 2008; Dunning, 1980, 1993; Kumar and Subramanian, 1997; Brouthers and Hennart, 2007). Each of these factors translates to one of the theories discussed above: ownership advantages relate to the resource-based view, location advantages relate to the institutional theory, and internalization advantages relate to the transaction cost analysis. This framework therefore combines insights from the three most popular theories and explores how they interact with each other (Brouthers and Hennart, 2007).

To discuss specifics for market entry theory of craft breweries, a unified framework needs to be utilized so that factors can be examined together. For this reason, this paper will use the Eclectic Theory as a guideline on how to compare the factors that affect success of entry into a foreign market. This provides an advantage in allowing one to combine factors of several theories to better address the total decision, as there are tradeoffs when examining how different variables lend to different entry modes and it is rare that a single entry mode will be ideal for every variable. It is therefore important to judge the most relevant factors for specific firms (Hill et al., 1990).

3 Eclectic Theory of the Choice of International Entry Mode

Hill et al. (1990) will be used as the guiding model for this study as it provides an excellent layout for comparing the means of market entry, showing a consistent level of control, resource commitment, and dissemination risk for licensing, joint ventures, and wholly owned subsidiaries. Although many factors are at work, Hill et al. (1990) break down the influences of entry mode decision into three broad categories - strategic variables (ownership advantages/resource based view), environmental variables (location advantages/institutional theory), and transaction variables (internalization advantages/transaction cost analysis). As stated above, they show that each category of variables relates to a construct: level of control, resource commitment, and dissemination risk. Strategic variables relate most to control, environmental variables to resource commitment, and transaction variables to dissemination risk. These relationships are summarized in Table 1.

Table 1: Relation of variables

Entry Theory	**OLI Advantage** (Dunning, 1977)	**Variable** (Hill et al., 1990)	**Construct** (Hill et al., 1990)
Resource Based View	Ownership advantages	Strategic variables	Control
Institutional Theory	Location advantages	Environmental variables	Resource commitment
Transaction Cost Analysis	Internationalization advantages	Transaction variables	Dissemination risk

3.1 Constructs

Hill et al. (1990) argue that each of the three most popular entry modes is consistent with a certain level of control, resource commitment, and dissemination risk, refered to as constructs. These specific factors that are most affected by each of Hill's variables are discussed in detail in this section. Table 2 shows the level of control, resource commitment, and dissemination risk for each entry mode.

Table 2: The characteristics of different entry modes

	Constructs		
Entry mode	Control	Resource commitment	Dissemination risk
Licensing	Low	Low	High
Joint venturing	Medium	Medium	Medium
Wholly owned subsidiary	High	High	Low

(Hill et al., 1990, p.120)

3.1.1 Control

Control is a particularly important construct for a firm in a market entry mode decision because it is a precursor in pinpointing the potential risks and rewards of entering a foreign market (Canabal and White, 2008; Anderson and Gatignon, 1986). Market entry theory generally agrees that, with all other things being equal, depending on the amount of control over decision making a multinational corporation (MNC) desires there are different entry modes that are more or less suitable (Hill et al., 1990; Anderson and Gatignon, 1986; Calvet, 1984; Caves, 1982; Davidson, 1982; Root, 1987; Pan and Tse, 2000; Pehrsson 2008; Young et al, 1989; Canabal and White, 2008). When an MNC enters a market using licensing, they are granting the licensee control over the operations in that market in exchange for payment - it is therefore clear that licensing is best for those wanting the lowest level of control (Hill et al., 1990). On the opposite side of the spectrum is a wholly owned subsidiary, which allows an MNC to hold on to the most control of decision making, as they are running the new subsidiary (Hill et al., 1990). Joint Ventures fall in the middle, as control is shared between the parties involved (Hill et al., 1990). To summarize, licensing is the best fit for an MNC looking for the lowest amount of control, joint venture offers moderate control, and wholly owned subsidiary gives the most control.

3.1.2 Resource Commitment

Just as the ideal entry mode varies depending on the amount of desired control, the amount of desired resource commitment also lends itself better to certain entry modes than others (Vernon, 1983; Hill et al., 1990; Pan and Tse, 2000). Depending on the form of entry, a varying amount of tangible and intangible resources must be invested, like the building of a physical location or the sharing of tacit knowledge. An MNC that wants to commit the

smallest amount of resources can choose licensing, because the licensee is generally responsible for most tangible investments. This leaves the MNC, or licensor, needing to commit only minimal resources in training and monitoring (Hill et al., 1990; Mottner and Johnson, 2000). On the other hand, an MNC that is willing to invest largely in resource commitment can enter with a wholly owned subsidiary, as the MNC owns all of the assets that generate revenue (Hill et al., 1990). Joint venture once again falls between licensing and wholly owned subsidiaries in the level of resource commitment, as the amount of resource commitment is shared between both partners of the venture (Hill et al., 1990).

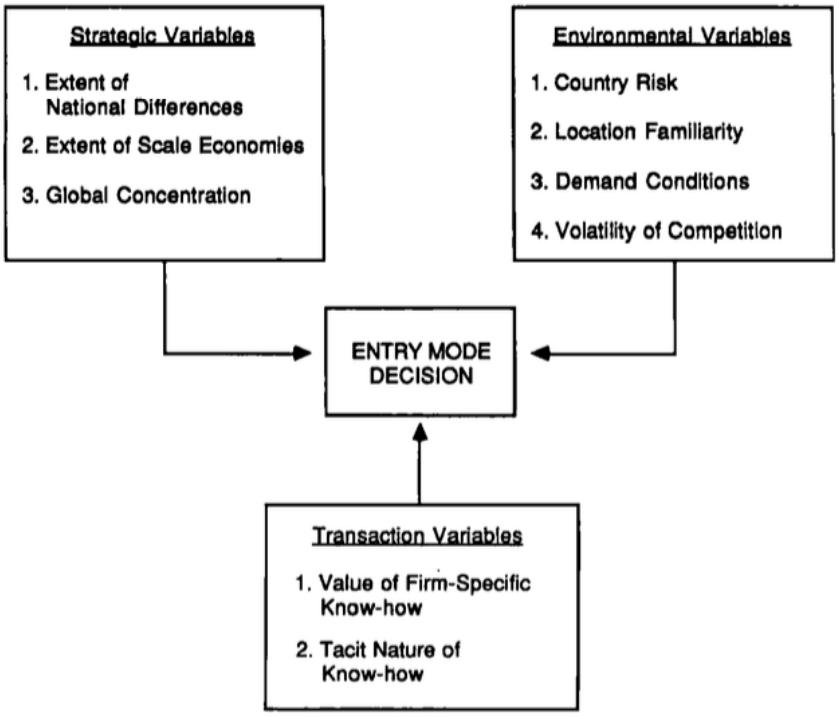
3.1.3 Dissemination Risk

Dissemination risk, defined as the risk of firm specific know-how being taken by a partner (Hill and Kim, 1988; Pan and Tse, 2000), can never be fully avoided. However, different entry modes have more or less of this risk. The highest risk of dissemination comes with licensing, as the licensee has a relatively small bond to the MNC, and patents can be circumvented and are difficult to enforce internationally (Hill et al., 1990; Lieberman and Montgomery, 1988; Taylor and Silberston, 1973; Mottner and Johnson, 2000). Joint ventures are still susceptible to dissemination risk, however being invested in a partnership gives them a greater stake as well as the owner of the information having greater control of the use of know-how (Hill et al, 1990). The lowest risk of dissemination is for wholly owned subsidiary, as they have full ownership and an atmosphere of congruence of goals within (Hill et al., 1990), though the risk is still present.

3.2 Variables

Hill et al. (1990) identify three broad groups of variables that have an impact on entry mode decisions. These variables are strategic variables, environmental variables, and transaction variables, as shown in Figure 2. The following section discusses these variables in greater detail, as well as how they apply to the constructs mentioned above.

Figure 2: The decision framework



(Hill et al., 1990, p.120)

3.2.1 Strategic Variables

Strategic variables take into consideration the extent of national differences, economies of scale, and global concentration of competition (Hill et al., 1990). These variables have the greatest effect on how much control an MNC would likely keep or give away when entering a foreign market. Perceived national differences and economies of scale will affect whether an MNC has a multi-domestic strategy, which is a strategy focusing on local markets, or global strategy, which is a more centralized strategy. If a firm has a multi-domestic strategy, they believe that national markets differ widely enough that consumer preferences, social structures, competitive situations, and legal and political situations will vary greatly. When an MNC is using a multi-domestic strategy they must therefore give operating and strategic responsibilities to their local subsidiaries to meet with the varying situations in each market. Thus, with all other factors being equal, an MNC with a multi-domestic strategy will favor low control entry modes, like licensing and joint ventures (Hill et al., 1990).

A global strategy, on the other hand, will not take the above differences as heavily into account, and can therefore take advantage of economies of scale when possible by keeping

central control. With other things being equal, an MNC with a global strategy would favor higher control modes like a wholly owned subsidiary.

Regardless of global or multi-domestic strategy, the global concentration of competition can influence the ideal entry strategy for an MNC. When a global industry is concentrated enough for competitive oligopolies to arise, MNC's have reason to act in ways that may appear counterintuitive. It has been shown that in the presence of global oligopolies an MNC may have strategic objectives outside of what is the most efficient entry mode for a particular market, sometimes even going as far as running a foreign subsidiary at a loss in order to attack the home market of a competitor (Hill et al., 1990; Edwards, 1971; Watson, 1982; Hout et al., 1982; Hamel and Prahalad, 1985; Kim and Mauborgne, 1988). This level of strategic global coordination would need strong control from a corporate office, as well as subsidiaries tolerating the potential of sacrificing profit for the greater good of the corporation. It is therefore unsurprising that other things being equal, when there is a global oligopoly and global strategic coordination is needed, MNC's will favor high-control entry modes like wholly owned subsidiaries instead of licensing or joint ventures.

3.2.2 Environmental Variables

The main environmental variables that affect market entry decision are country risk, location familiarity, demand conditions, and volatility of competition. These variables have the greatest effect on the resource commitment of an MNC, and by extension the strategic flexibility (Hill et al, 1990).

Risks stemming from the host country an MNC is entering are broken down into four main types by Root (1987) - (1) general political risk, like political instability; (2) ownership and control risks, like government intervention or expropriation; (3) operations risks, like price control or local requirements; and (4) transfer risks, like inconvertible currencies or controls on remittance. The higher these risks are, the higher the risk for an MNC to commit resources, and the harder it is for an MNC to quickly exit the market if needed. It is therefore recommended by Hill et al. (1990) that, with all other factors being equal, MNC's favor entry modes with low resource commitment (like joint venture or licensing) when country risk is high. Further, other studies support this in showing that limiting

ownership in a foreign venture can additionally lower these risks (Bradley, 1977; Kobrin, 1983; Vernon, 1983).

Differences in culture, economic systems, and business practices, as well as how much experience a firm has had with a given culture, all affect the location familiarity an MNC has with a host country. The greater the perceived distance between a home and host culture, meaning the less familiar a home culture is with a host culture, the more uncertainty and unknowns an MNC may need to face, and the less resources they will want to invest. It is therefore unsurprising that it has been shown that MNC's are more likely to favor licensing or joint ventures over wholly owned subsidiaries when faced with greater perceived cultural distance (Anderson and Coughlan, 1987; Davidson, 1980; Green and Cunningham, 1975; Johanson and Wahlne, 1977; Kobrin, 1983; Stopford and Wells, 1972). Further, Hill et al. (1990) suggest that with all other factors being equal, MNC's favor entry modes with lower resource commitment when faced with greater perceived distance. A lower resource commitment is also suggested by Hill et al. (1990) when demand conditions are uncertain, making licensing the best choice when a host market is in embryonic or declining stages. Further, they conclude that MNC's favor lower resource commitments in the presence of competitive volatility as well, avoiding high commitment in the presence of high risk.

3.2.3 Transaction Variables

Transaction specific variables are the variables relating most to the transaction cost theory, namely the value of firm-specific know-how from the MNC, and the tacit nature of the MNC's know-how. This relates most to dissemination risk. When an MNC has firm-specific know-how with a very high value, there is much more incentive for partners to act opportunistically and disseminate the information. With this in mind, and with all other factors being equal, an MNC with highly valued know-how will favor an entry mode with the lowest dissemination risk, which is a wholly owned subsidiary (Hill et al, 1990). Sometimes even when an MNC wants to share knowledge, it is difficult due to the knowledge being highly tacit - which is by definition hard to share. In these cases, when firm-specific knowledge has highly tacit components, an MNC will favor high control modes like a wholly owned subsidiary due to the fact that it is too costly or difficult to

share the knowledge with lower control entry modes like licensing or joint ventures (Hill et al, 1990).

3.2.4 Weighing Variables

All of the factors that have been considered are taken into account with all other factors being equal, however in a realistic situation factors are not equal. In most cases there will be conflicting factors and in order to optimize they will need to be weighted. Though this is up to the discretion of the MNC, Hill et al. (1990) suggest that when the competitive advantage of an MNC is strongly dependent on their know-how, protecting their knowledge should take the highest priority. Further, when strategic flexibility is needed for a global strategy, or when strong central leadership is necessary to navigate a competitive oligopoly, central control is also given more weight than some of the other factors. This being said, the tradeoffs of the decision will always need to be considered on a case-by-case basis. A summary of the variables and their related constructs and entry decisions is shown below in Table 3.

Table 3: Summary of variables, constructs, and entry methods

Variable (Hill et al., 1990)	Level	Construct	Entry Method
Strategic Variables		**Level of Control**	
Extent of National Differences	High	Low	Licensing/JV
	Low	High	WOS
Extent of Scale Economies	High	High	WOS
	Low	Low	Licensing/JV
Global Concentration	High	High	WOS
	Low	Low	Licensing/JV
Environmental Variables		**Resource Commitment**	
Country Risk	High	Low	Licensing/JV
	Low	High	WOS
Location Familiarity	High	High	WOS
	Low	Low	Licensing/JV
Demand Conditions	High	High	WOS
	Low	Low	Licensing/JV
Volatility of Competition	Low	High	WOS
	High	Low	Licensing/JV
Transaction Variables		**Dissemination Risk**	
Value of Firm-Specific Know-how	High	High	WOS
	Low	Low	Licensing/JV
Tacit Nature of Know-how	Low	Low difficulty to share info	Licensing/JV
	High	High difficulty to share info	WOS

4 German Craft Beer Industry and the Eclectic Framework

Like many other industries, firms within the beer industry strive to differentiate themselves. Many breweries attempt to do this by labeling themselves as a "craft brewery," "artisanal brewery," "microbrewery," "local brewery," or numerous other titles to separate themselves from mass-producing, mainstream breweries (Garavaglia and Swinnen, 2018). The definition of craft brewing is not completely straightforward, because there is not one definition that is accepted throughout the world, and criteria ranging from ownership, production process, scale, age, and tradition are used to attempt to define it (Garavaglia and Swinnen, 2018). Beer enthusiasts separate "craft" and "mass" beers, with craft beers

being “small-scale” and “high-quality,” but on their own these labels do not accurately limit the market. This is because “high-quality” is generally defined as having no additives or artificial ingredients, however this can apply to every domestic lager in Germany, and “small-scale” could include “craft quality” beers like Sam Adams and Pete’s Wicked Ale, both of which are American beers produced under contract with large breweries (Adams, 2006; Van Munching, 1997; Tremblay and Tremblay, 2005).

A widely accepted definition is from the American Brewers Association (ABA), defining a craft brewery as “small,” “independent,” and “traditional” - with small being annual production less than six million barrels, independent being less than 25% owned or controlled by a non craft brewing alcohol industry member, and traditional meaning that over 50% of its beer gets its flavor from “traditional” or “innovative” brewing ingredients and their fermentation (Garavaglia and Swinnen, 2018).

Researching market entry of craft brewing into the German market is particularly important because the beer market segment containing craft beer and import beers is the fastest growing market share in the industry (Brewers Association, 2016). The following sections will show that while the German market had remained relatively untouched by the craft brewing growth that the rest of the world has been experiencing, this is quickly changing. Therefore, taking into consideration the Eclectic Framework discussed above, the following section looks at the craft brewing industry in the United States and German markets to examine how market entry theory suggests a U.S. craft brewery would enter the German market.

4.1 Strategic Variables in the German Craft Beer Market

The strategic variables that affect the amount of control an MNC will want to have when entering a market are the extent of national differences between the home and host counties, the extent of scale economies that can be reached, and the global concentration of competition the firm will need to face.

4.1.1 Extent of National Differences

With a high level of national differences a firm is likely to take a multi-domestic strategy, and therefore lean towards licensing or a joint venture (Hill et al., 1990). These differences

can be in consumer preferences, social structures, competitive situations, and legal and political situations. While the United States and Germany are similar in many ways, there are interesting differences worth noting in (a) consumer preferences, (b) competitive situations, and (c) the legal situation in particular.

a) Consumer Preferences

Germany has a long history and culture of beer drinking (Ascher, 2012; Adams, 2006; Depenbusch et al., 2018), however, the preferences that German and U.S. consumers have for the beer they drink differ significantly. One big difference is the regional variance of preferences in the German market. Different regions of Germany have developed different beer styles, and certain styles of beers are more available in their region of origin. There is an overall trend of German consumers having preferences to the styles of beer native to the regions where they are from, and the regions vary significantly in style of beer (McCluskey and Shreay, 2011; Adams, 2006; Depenbusch et al., 2018). An example from the German Beer Institute in 2008 is that blond Kölsch is the most popular beer in the Cologne region, but in Bavaria Weissbier has the largest market share - however Weissbier does not generally have a large market share in the rest of the country (McCluskey and Shreay, 2011).

There are several more examples of German preferences of local beers shown by the variation of beer consumed. Adams (2006) quotes data showing that in the year 2000 Pilsner accounted for 33% of 'Off' sales in Bavaria, but 67% in North Rhine–Westphalia, however Alt accounted for 0.2% in Bavaria, but 11% in North Rhine–Westphalia, and Weizen was 18% in Bavaria, but only 3% in North Rhine–Westphalia.

Germany's competition authority backs this up as well, arguing that German beer markets are smaller than national in scope because German preferences are local (Adams, 2006). Further, Scherer et al. (1975) concluded from studying the beer industry in six countries that strong brand loyalties of German consumers permit hundreds of small German breweries to survive while serving extremely narrow local markets, and at the same time making it much more difficult for regional and national brewers to penetrate the market (Adams, 2006). This is because in most countries craft brewers can gain a unique competitive advantage by focusing on locality, as regional breweries have faded in most

markets. However, this is less viable for craft brewers in Germany because the German beer market is still so highly fragmented and tied to specific regions (Depenbusch et al., 2018), making a barrier for potential craft brewers in the market.

It is noted by Adams (2006), however, that consumer *choices* do not always reflect consumer *preferences*. Taking transport costs into consideration might show that local beers could be chosen for their prices, and not their attributes. If this is the case, and price sensitivity is at the root of the choice, this will have a very different effect on craft brewers. Research shows that German consumers, much like their American counterparts, in fact are price-sensitive (Adams, 2006; Winston et al., 2002; Elzinga, 2005), and craft beer is generally sold at a price premium, higher than the import, super-premium, and premium categories of beer, potentially turning away more price sensitive beer drinkers like the low income or high consumption demographics, as shown in Table 4 (Elzinga et al., 2018). Adams (2006) also shows that brand loyalty for beer declined between 1993 and 2001 more than any sample product except yoghurt, and was ranked last in consumer loyalty to brands in 2001. Further, blind taste tests showed perceived brand quality and actual brand price are not highly correlated, and brands are difficult to identify by taste (Greer, 2002; Tremblay and Tremblay, 2005).

Table 4: **Average supermarket price per case by beer category**

Beer category	2006	2007	2008	2009	2010	2011	2012	2013	2014
Import	25.68	26.75	27.02	27.26	26.96	27.27	27.37	27.66	27.97
Craft	27.20	28.11	29.64	30.63	31.21	31.96	33.08	33.97	34.95
Super-premium	20.51	21.62	23.09	23.90	24.06	24.46	25.01	26.32	26.62
Premium	16.71	16.91	17.35	17.91	17.99	18.28	18.44	18.63	19.78

Source Beer Industry Update (various issues). Values are in nominal dollars per case of 24 (12 oz) containers. Categories do not include light beer

(Elzinga et al., 2018, p.64)

It is important to note that preferences have also been known to change in response to exposure to other brands. This can be seen in theory as well as the beer market in the U.S., and changes can already be seen in the German market. Research shows that purchasing decisions are influenced by the environment, social pressures, and peers of a consumer (Garavaglia and Swinnen, 2018; Nicosia and Mayer, 1976; Nelson and Consoli, 2010).

Adams (2006) argues that the preference that consumers have for local beer also partially depends on exposure, citing that The European Court of Justice states that integrating European markets for alcoholic beverages will expand the value consumers lay on foreign products. Adams (2006) maintains that not only can this effect be seen with travel, but also from permanent changes in location, as shown by the changes of taste in beer that came following the large changes in population after World War II and the Cold War in Germany.

Changes in taste due to exposure can also be seen in the American market. Swaminathan (1998) discusses the correlation between new craft breweries entering the U.S. and the growth of demand for imported beer. Garavaglia and Swinnen (2018) also mention the "contagion" effect of craft beer pioneers being inspired by contact with strong beer tradition in other countries while traveling, and the adoption of European brewing practices through travel books by European authors influencing American craft brewers. Further, research shows that European brewers are now being influenced by craft brewers in the U.S. as well (Garavaglia and Swinnen, 2018; Elzinga et al., 2018).

Even though Germany has the third highest per capita consumption of beer, it is only eighth in absolute number of craft breweries (Depenbusch et al., 2018). However, Depenbusch et al. (2018) conducted qualitative interviews that show that the U.S. craft beer revolution is creating awareness for differentiated tastes and styles of beers, and the German market has a growing community of small-scale brewers now experimenting with craft beer and sharing the experience with consumers, which is being seen as a continuation of the U.S. movement. The brewers that were interviewed see a change in demand, saying that while there was no market for craft beer in Germany ten to twenty years ago, preferences have shifted and a market for innovative beers has emerged. They attribute this greatly to media coverage of the craft beer movement in the United States.

There is evidence for this change outside of these interviews as well, with growing success of the beer festival "Braukunst Live!," which is the first German beer tasting festival for national and international artisanal brews. The number of visitors to this festival has increased by almost 220% between its start date in 2012 and 2016, and the number of exhibitors more than doubled. One of the first German magazines about artisan brewing,

called “Craftbeer,” also launched in 2016 with an initial circulation of 40,079 copies, showing further growth in the craft beer industry (Depenbusch et al., 2018).

b) Competitive Situation

The competitive situation in Germany differs significantly from the situation in the United States, as well as the majority of the rest of the global market. This is discussed in much greater detail in the following sections. The core differences can be summarized as Germany having a market much less concentrated by the largest players in the beer industry.

c) Legal Differences

Legal restrictions have affected the beer markets in the U.S. and Germany in different ways, the most notable of which are (i) the German Reinheitsgebot (beer purity law), (ii) the vertical and horizontal integration laws in both countries, and (iii) a combination of smaller factors like tax regulations and advertising restrictions.

i. Reinheitsgebot

The traditional Beer Purity Law, called the Reinheitsgebot, started in the year 1516 and originally limited the variety of ingredients allowed in beer to hops, barley, and water. The fourth ingredient to be allowed, yeast, was added later on (Adams, 2011; Garavaglia and Swinnen, 2018; Depenbusch et al., 2018; van Tongeren, 2011; Swinnen, 2017). This is one of the oldest food or drink standards in the world, and was originally implemented by a Bavarian king who wanted to protect beer consumers from harmful ingredients that some breweries that had recently entered the market were adding to reduce costs. Eventually this law began protecting not only consumers, but brewers as well. Throughout the many years of its enactment the Reinheitsgebot protected the well established brewers in the market by making it more difficult to enter, which is likely one of the motives that has kept the law for so long (van Tongeren, 2011; Garavaglia and Swinnen, 2018). Until 1987, when it was judged that the Beer Purity Law contradicted EU trade laws, the law made it impossible for more diverse or innovative beers to enter the German market from other countries. The law still holds for beers being produced domestically within Germany, and the preferences

within the German market still reflect this long-standing rule (Garavaglia and Swinnen, 2018; van Tongeren, 2011; Swinnen, 2011).

These restrictions have had measurable effects in the German market. It is thought that this added to the reduced variety of beer in Germany, with Pilsner having a retail market share of approximately 54% in 2015 (Depenbusch et al., 2018). The protection from competition from outside Germany allowed the market to be much less concentrated than in other countries, with less demand for craft beers (Depenbusch et al., 2018). These regulations also discouraged local breweries in Germany from experimenting with different ingredients that brewers in other countries were free to use, adding to the factors causing the slow development of the craft beer industry there (Garavaglia and Swinnen, 2018). Germany is not the only country that had restrictions of this type, the U.S. restricted the use of certain grains during World War I, World War II, and the Dust Bowl to save food, giving beers a "lightness" from the rice that was used instead of wheat or barley, and increasing demand for barley and wheat-based craft beers later on (Poelmans and Swinnen, 2011; Garavaglia and Swinnen, 2018).

Craft beers are now meeting the lack of diversity in the German market with innovative beers that still adhere to the German purity law, or that do not adhere to the law but market themselves under other names, like malted beverages, instead of beer (Depenbusch et al., 2018).

ii. Horizontal and Vertical Integration Laws: Tied Houses vs. 3 Tier System

Germany and the United States have very different approaches to horizontal and vertical integration laws that affect the beer market greatly. When it comes to horizontal mergers, German brewers are subject to German as well as European Union competition rules, but while the European Commission has worked against collusion in many European beer markets, it has not found collusion in the German beer market (Adams, 2006). In general, the German government and the European Union are relatively tolerant of mergers in the German beer market, allowing brewers in Germany to grow by acquisition (Adams, 2006; Brouwer, 1988; Müller, 1976; Schwalbach and Müller, 1984). On the other hand, during the same period the American antitrust authorities were forcibly attacking horizontal

collusion, preventing significant mergers between brewers (Adams, 2006; Elzinga and Swisher, 2005; Tremblay and Tremblay, 2005).

Vertical integration into distribution, on the other hand, is permitted for German brewers. However, regional brewers in Germany have a protection against large national brewers taking over distribution like in the U.S. - the Tied House system. In the Tied House system the brewer has a strategic alliance with a pub, where it will supply the retailer with commercial equipment or financial support at below-market prices in exchange for that retailer keeping an exclusive relationship with the brewer. This allows local brewers to control the retail outlets for their beer, keep their market position, and build brand loyalty. This has helped to preserve the fragmented structure in the German beer industry by not only supporting small, established breweries, but by keeping a barrier to stop new microbreweries from entering the market because they can only sell small quantities to pubs that are under contract (Adams, 2006; Adams, 2011; Deconinck and Swinnen 2016; Garavaglia and Swinnen, 2018; Brouwer, 1988; Dumez and Jeunemaıtre, 1994; Slade, 1998; Depenbusch et al., 2018).

Conversely, in most states in the U.S. the Tied House system was outlawed after the Prohibition in 1919, and most states do not allow brewers to integrate forward with ownership or subsidy (Adams, 2006; Elzinga, 2005; Scherer, 1996). Instead, many states have a "Three-Tier" system of distribution, where brewers can only sell to wholesalers, and in turn wholesalers may only sell to retailers, as well as a system of exclusive territories for wholesalers where beer from a brewer is only available from one wholesaler within a particular geographic area (Adams, 2006). However, changes in U.S. government regulations helped craft brewers to begin, with federal tax reductions for smaller brewers in 1977, federal legalization of home brewing in 1979, and state legalization of brewpubs in 1982. This allowed people to get a taste for craft beer, allowed microbreweries to sell beer off-premise, and brewpubs to sell beer on-premise (Elzinga et al., 2018).

iii. Taxes, TV, Packaging, etc.

There are several other public policies that unexpectedly affect the beer market structure, administered by a variety of authorities with varying ability to enforce them (Adams, 2006; Rosenberg, 1991). There are excise taxes on beer in both the United States and Germany,

which can affect brewers differently depending on size. Germany having the lowest tax rate on beer in the EU helps smaller brewers in the German market (Adams, 2006). In the United States beers may contain preservatives, while they may not in Germany. This increases the perishability of domestic beer, and therefore increases the cost of transport, counteracting cost advantages that could be gained from large-scale brewing (Adams, 2006). Further laws on transport costs are discussed in the following section. Television advertising restrictions were much stricter in Germany, hurting the ability of large brewers to reach the German market as easily as the U.S., until online advertising made it too difficult to keep international advertisements out (Adams, 2006). Large regional breweries in Germany needed to turn to Tied Houses instead of television in order to advertise their brands (Adams, 2006).

All of these legal differences combined to help the regional brewers protect their local markets in Germany, while keeping big brewing companies from easily entering the markets and outcompeting them. The German beer market is therefore far less concentrated than others, which is discussed more in the global concentration section. While large regional brewers are scarce in the United States, they thrive in Germany due to the Reinheitsgebot, integration laws like Tied Houses, television and recycling restrictions, and tax benefits (Adams, 2011; Winston et al., 2002; Adams, 2006; Depenbusch et al., 2018).

With all other factors being equal, the extent of national differences in consumer preferences, the competitive situation, the legal situation, and the numerous barriers to entry for craft breweries in the German market that are caused by these disparities, would warrant a craft brewer entering the German market to use a lower control mode like licensing or a joint venture.

4.1.2 Economies of Scale

Hill et al. (1990) argue that when a high level of economies of scale can be reached then a firm may want to take advantage of it with a “Global Strategy,” which would require a wholly owned subsidiary to properly accomplish. Economies of scale have increased in the beer industry as technology has progressed, with automation of the beer production process through the brewing, fermenting, and conditioning of the beer (Adams, 2006; Iwasaki et

al., 2008; Gourvish 1994). However, because craft beer is synonymous with small batches, by definition it is low in production by nature. Instead, economies of scale are found in the packaging and transport costs (Adams, 2006).

In the United States the concentration of the beer industry was helped greatly by scale-augmenting packaging technology, with automation increasing the speed of the bottling and canning processes as well as reducing labor costs (Ascher, 2012); in Germany this was not the case (Adams, 2006). One factor that limits the economies of scale in Germany is the tendency to have broad product lines. With relatively large setup costs, firms that produce several different beers and package them in different types and sizes of containers gain less from new scale technologies. With German breweries offering a broader product mix at the firm level, they have a broader packaging mix and thus gain less from economies of scale in packaging technology (Adams, 2006).

Product mix is not the only factor increasing packaging costs in Germany. In the year 2000 in the United States 51% of beer was packaged in aluminum cans, 40% in glass bottles, and 9% in half-barrels and kegs (Adams, 2006; Tremblay and Tremblay, 2005); in Germany only 20% was packaged in cans, with 60% in bottles, and 20% in barrels and kegs (Adams, 2006). Although all forms of packaging have improved throughout the years, bottling and kegging has not improved as much as canning has from technological advances. While bottle lines can fill 1,100 containers per minute, can lines are able to fill 2,000 containers per minute (Adams, 2006; Elzinga, 2005). This difference in packaging mix makes a large impact on the difference in economies of scale that the U.S. and German markets can reach. This difference comes from regulations in the German market that favor reusables for recycling, while the U.S. system favors cans (Adams, 2006; Porter, 2002).

These differences in economies of scale stemming from Germany using primarily bottles spills over to transport costs as well. Transportation has had greater economies of scale overall, with enhanced distribution due to improved road networks (Adams, 2006; Gourvish 1994). However, while beer is costly to transport regardless of packaging (Scherer, 1996), bottled beer costs more to transport than cans, and even more so when they are reusable and must be returned to the brewery to be refilled - as they are in Germany (Adams, 2006). Further, due to the Reinheitsgebot, no preservatives are

permitted in German beers, increasing the perishability and making transport more costly and large scale brewing less profitable (Adams, 2006; Depenbusch et al., 2018).

Overall, while economies of scale exist in the brewing industry, in Germany the effects have been much less drastic due to a larger mix of beer varieties, a preference towards bottles instead of cans in packaging, and the shorter shelf life of German beer (Adams, 2011; Depenbusch et al., 2018). Therefore, with all other factors being equal, the potential for economies of scale alone would not suffice to make a firm choose a global strategy and enter with a wholly owned subsidiary.

4.1.3 Global Concentration of Competition

When concentration of competition in a given market is high enough that it can be considered a global oligopoly, a wholly owned subsidiary is the recommended market entry choice (Hill et al., 1990). The craft-brewing industry in Germany has unique features that need to be taken into consideration when judging this. Therefore, both the competition in the global market as a whole, as well as the German market specifically, will be discussed.

i) Global Concentration

Technological changes after 1945 began allowing companies to sell larger volumes due to economies of scale, leading major players in beer to search for ways to integrate both horizontally and vertically until it was verging on a concentration that can be considered an oligopoly (Gourvish, 1994; Gourvish and Wilson, 1994; McGahan, 1991; Sutton, 1991). From 1950 to the year 2000, Anheuser-Busch's share of domestic output grew from 6% to 54%, and the four-firm producer-concentration ratio for beer grew from 22 to 95 in the U.S. (Adams, 2006). By 2012, the top ten largest beer distributers accounted for almost 60% of the market due to mergers and acquisitions, with the top four having a combined world market share of over 45%. The top company, Anheuser-Busch InBev (AB-InBev), was already managing over 200 separate beer brands (Ascher, 2012). In 2014, economics online reported that the world's four biggest brewers, (AB-InBev), SABMiller, Heineken, and Carlsberg, accounted for more than half the global market for beer ("The Brewing Industry," 2014).

An empirical study by Iwasaki et al. (2008) shows that these mass-producing brewers forced each other into a war of attrition, forcing price-cost margins down especially low in the 1970's and 1980's, which were coined the "Beer Wars." Speculations from Tremblay and Tremblay (2005, 2007) support this as well. Both advertising and a rise in economies of scale increased the concentration in the global brewing market, with the speed of convergence varying with the financial stress in the industry. Ultimately, this war of attrition between breweries led to extremely low price-cost margins despite the industry concentration being high (Iwasaki et al., 2008).

The U.S. has a particularly wide variety of competition types in the beer market due to the Three-Tier distribution system, with competition taking place both within and across the three tiers - brewers, distributors, and retailers. There is also competition between different sections of the country, domestic versus imported brands, and mass brewers versus craft brewers. The largest of the brewers in the United States compete via investments, fighting for market share through mergers, acquisitions, and partnerships (Ascher, 2012).

Even though the majority of the beer sold in the United States is brewed by macrobrewers, craft breweries are the fastest growing sector in the industry, with less than ten firms in 1980, around 2000 in 2012, over 3464 in 2014, and over 4000 firms having entered as of 2018 - with the market share growing from less than 1% in 1990 to over 10% in 2018 (Elzinga et al., 2018; Ascher, 2012; Tremblay and Tremblay, 2011; Depenbusch et al., 2018). Although the volume of the market taken up by craft breweries is relatively low, the market share is higher due to the price premium craft breweries charge (Elzinga et al., 2018; Ascher, 2012).

Despite this growth, the Three-Tier distribution system still proves a burden for craft brewers, who have difficulties getting their products to retailers and consumers through distributors because they are generally more interested in higher volume brewers (Ascher, 2012). Further, craft beers are not only competing against each other, but also against big brewing brands, who have shown concern for the growing market share being taken up by craft breweries, especially with the "millennial" market segment, which is about 70 million consumers (Ascher, 2012).

One way macrobreweries are trying to fight the growth of the craft beer segment is to disguise their brands as craft beer. This is done through quiet acquisitions, and producing craft style beer from large breweries. For example, AB InBev, has acquired a substantial number of craft breweries, which they call their 'craft and specialty beer network', and in 2015 MillerCoors acquired Saint Archer Brewing Co., which was one of the fastest growing breweries in California at the time. These acquisitions have been met with heavy backlash and criticisms from both customers and brewers, with acquired breweries being referred to as "ex-craft," and being excluded from craft organizations and events (Garavaglia and Swinnen, 2018; Kell, 2017). Mass breweries have also been introducing new craft-like brands since the mid-1990s, referred to as "phantom" or "faux" craft beers, that explicitly avoid displaying the name of the mass brewery or parent company to appear like a microbrewery. Popular examples of this are Coors owned brand "Blue Moon," which many believe to be a craft brewery (Garavaglia and Swinnen, 2018), and AB InBev's large brewery, Beck's, recent "Taste the World" initiative, selling several types of craft beer (Depenbusch et al., 2018).

ii) German Concentration

The increase of concentration in Germany has been much less drastic than in the United States (Adams, 2011; van Tongeren 2011). There are many reasons for this disparity. While mergers were escalating in the U.S. after technological progress increased economies of scale, the developments did not affect Germany as much due to the reasons discussed in the above "Economies of Scale" section: mainly the product mix, choice of bottling, and lack of preservatives. Further reasons for the disparity, also as discussed in above sections, were the German market's preferences for local producers, the prevalence of large regional breweries in Germany, the late entry of television advertising, the Tied House system in Germany keeping a barrier for vertical and horizontal mergers, tax breaks in Germany for smaller brewers, and in addition, the fact that many old family owned breweries are less affected by profit-seeking motives (Depenbusch et al., 2018; Adams, 2006; Adams, 2011).

The effects of these differences can be seen in Table 5 from Adams (2006). Between 1950 and 2000, the top four breweries in the United States increased from 25% to 95%, while in Germany it only increased from 12% to 29%. Further, in the year 2000 the eight-firm ratio

in Germany was smaller than the one-firm ratio in the U.S., and while in the United States mass production was a triopoly, Germany's mass brewers were scaled more evenly. All three of the firms from the triopoly in 2000 are now owned by AB-InBev.

Table 5: **Producer concentration in the beer industry - Germany and the United States**

	1950		*1958*				*2000*				*2005*	
	USA (1)		*USA (2)*		*Germany (3)*		*USA (4)*		*Germany (5)*		*Germany (6)*	
Rank	*Share*	*Firm*	*Share*	*Firm*	*Share*	*Firm*	*Share*	*Firm*	*Share*	*Firm*	*Share*	*Firm*
1	6	Schlitz	8	A-B	3	DUB	54	A-B	9	Holsten	17	Oetker
2	6	A-B	7	Schlitz	3	Oetker	22	Miller	9	Binding	15	InBev
3	5	Ballantine	5	Falstaff	3	Schultheiss	12	Coors	6	B&B	9	Carlsberg
4	5	Pabst	5	Ballantine	2	Dresdner	6	Pabst	5	Beck	8	Schörghuber
5	3	Rheingold	4	Carling	2	Hypo-Bank	1	Boston	5	Warsteiner	5	Warsteiner
6	3	Schaefer	4	Hamm	2	DAB	1	Genesee	5	Bitburger	5	Bitburger
7	3	Falstaff	3	Rheingold	2	Carl Funke	1	Latrobe	4	Krombacher	4	Krombacher
8	3	Miller	3	Schaefer	2	Holsten	1	Yuengling	4	BBH	4	Oettinger
Top 4	22		25		12		95		29		49	
Top 8	34		40		20		97		48		67	

(Adams, 2006, p. 190)

Depenbusch et al. (2018) use regional data to show that there is a positive correlation between the level of concentration in a market and the adoption of craft beer in that market. This helps to explain why the United States has had so many craft breweries entering the market, correlating with the high concentration, and conversely helps explain why Germany, with a much lower concentration, has had so significantly fewer craft breweries enter.

It is important to note that, much like in the U.S. market, microbrewing does not always equate to craft brewing in Germany. Though the size of a brewery can be an indicator of it being craft, there are many microbreweries that are not craft beers in the German market. For example, the largest German Brewery, The Radeberger Group, has a separate company called "Braufactum" that focuses exclusively on craft style beer (Depenbusch et al., 2018). Further, a market survey by Alltech (2015) shows 717 German microbreweries (with outputs of less than 1000 hl), but only 307 German craft breweries. They further show that while Germany has the third highest beer consumption in the world per capita, France and Italy both have twice as many craft breweries as Germany.

With the above information taken into consideration, it can be seen that there is undoubtedly a global oligopoly in the craft beer industry. However, it needs to be noted that this concentration of competition is much less extreme in the German market. That being said, with all other variables being equal, a craft brewing firm entering the German market may still want to consider entering with a wholly owned subsidiary to keep key control in the rising competition, but it should not be weighed as heavily as it would for other markets.

4.2 Environmental Variables in the German Craft Beer Market

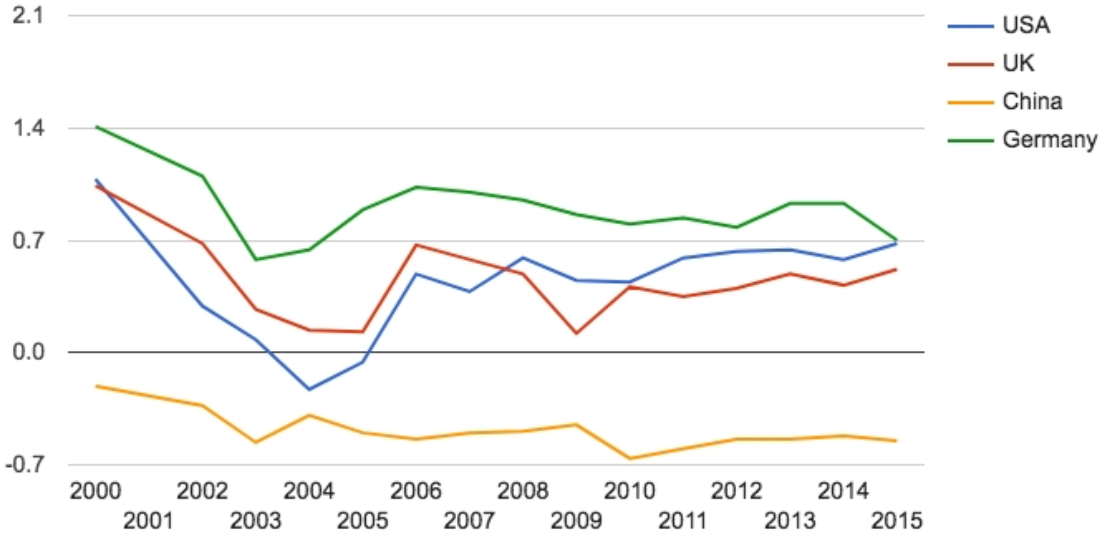
The environmental variables that have the largest pull on the level of resource commitment a firm is generally willing to make when entering a foreign market are the country risk, location familiarity, demand conditions, and volatility of competition.

4.2.1 Country Risk

When there are high risks involved in a country, Hill et al. (1990) suggest a firm use an entry method that provides flexibility, like joint ventures or licensing. Hill et al. (1990) look to Root (1987) to decide how best to compute country risk, which is general political risk, ownership and control risks, operations risks, and transfer risks.

TheGlobalEconomy.com measures economic indicators for over 200 countries, and uses data from the World Bank and other economic groups to compare them. On this platform, Germany is one of the most politically stable countries, with higher stability than the United States, the United Kingdom, or China (Figure 3).

Figure 3: Political stability index (-2.5 weak; 2.5 strong)

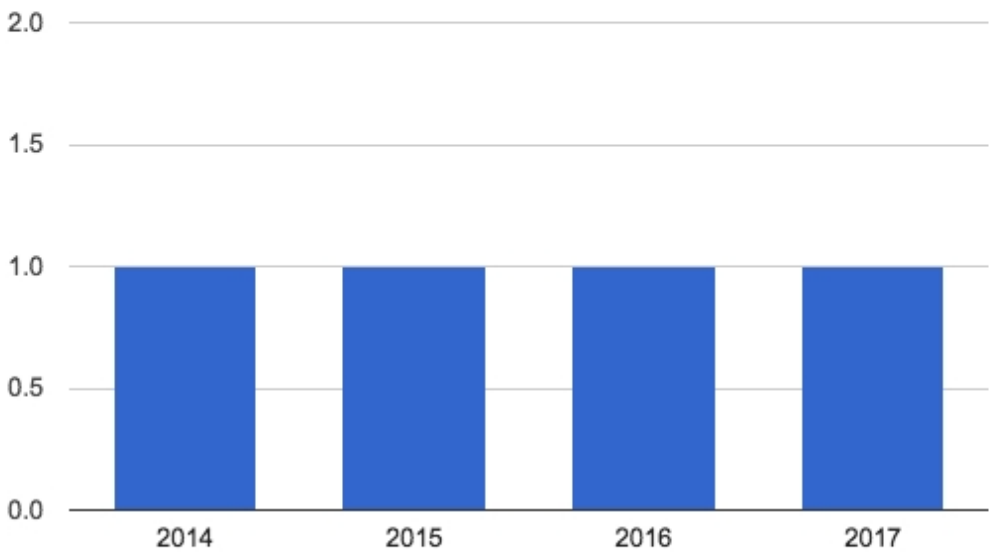


Source: TheGlobalEconomy.com, World Bank

(https://www.theglobaleconomy.com/compare-countries/)

To gauge ownership and control risks the expropriation risk can be used, which is scaled from one to seven, with one being the lowest risk and seven being the highest. Germany is ranked to have the lowest level of expropriation risk from 2014 to 2017, the years for which data is available (Figure 4).

Figure 4: Germany - Expropriation risk



Source: TheGlobalEconomy.com, Credendo Group

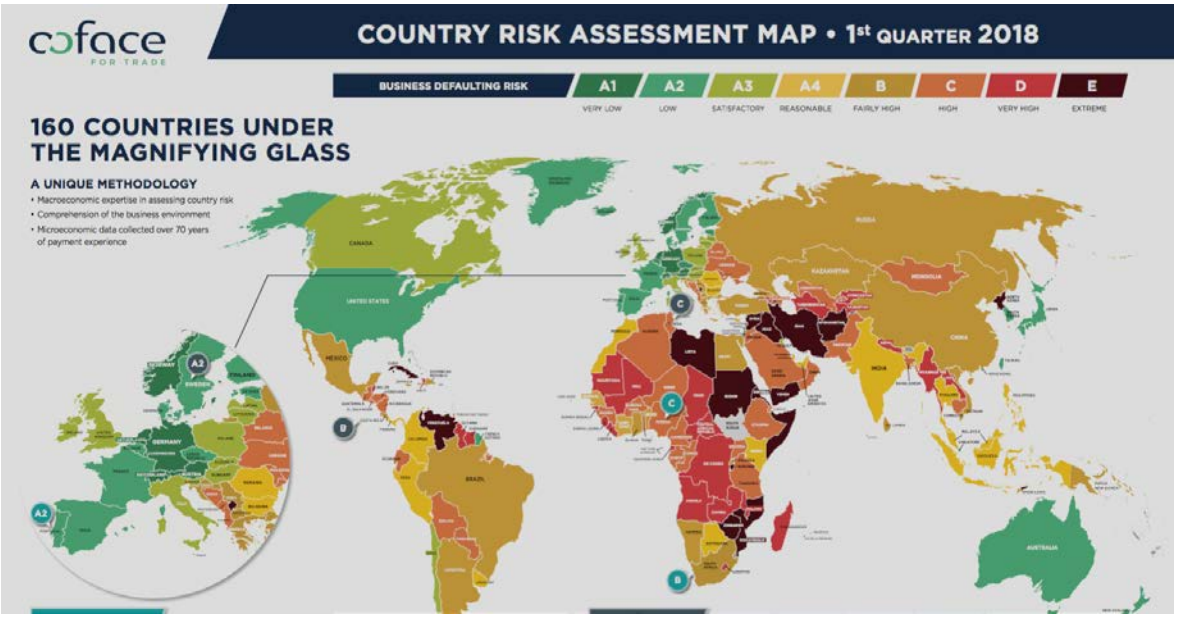
(https://www.theglobaleconomy.com/compare-countries/)

For operations risk, like price controls and local content requirements, one could look at the German Act against Restraints of Competition (ARC), a 1958 law in Germany "based on the conviction that a competitive system is the most efficient and, simultaneously, the most democratic form of the economic system" (Schmidt, 1981), which fundamentally fights against operations risks. Not only is this law still in use, the ninth amendment to the act furthering its reach was put through in 2017 ("German competition law update," 2018).

For transfer risk, both currency inconvertibility risk and remittance controls could cause risks for a firm. However, Germany is the fifth largest remittances-sending country in the world, and uses the Euro, which is the second most traded currency in the world ("National Remittance Plans," 2015). With this being said, it is clear transfer risks are not high for Germany.

Lastly, Coface's Country Risk Assessment Map for the first quarter of 2018 shows Germany's overall country risk as very low, lower than that of the United States (Figure 5) - further confirming that country risk is not a concern when entering the German market. With this being clear, firms would be willing to commit more resources for this market. Therefore, with all other factors being equal, theory would suggest entering the market with a wholly owned subsidiary when looking at country risk.

Figure 5: Country risk assessment map



Country Risk Assessment Map (2018)

4.2.2 Location Familiarity

When location familiarity is low it is suggested to enter the market with a low resource commitment, like joint venture or licensing. Further, this can help bridge the cultural gap by having partners native to the market. Location familiarity is a combination of the cultural difference between the home and host countries and the experience the firm has with that culture. The level of experience a firm has will vary on a case-by-case basis, but the cultural distance between home and host countries can be calculated by using Hofstede's dimensions of culture. In a simplified graph from Hodgetts and Luthans (1993), Table 6 shows that Germany and the United States are relatively similar, both having low power distance, high individualism, and high masculinity. The two countries do differ in

uncertainty avoidance, with Germany being high and the U.S. being low. A brewery from the U.S. would therefore have relatively high location familiarity with Germany, and therefore be willing to commit more resources. With all other factors being equal, theory would not limit a firm to low resource commitment entry forms like joint venture or licensing to enter the German market when looking at location familiarity.

Table 6: Hofstede's dimensions of culture

	Power Distance		Individualism		Masculinity		Uncertainity Avoidance	
	high	low	high	low	high	low	high	low
Pacific Rim								
Japan	X			X	X		X	
Hong Kong	X			X	X			X
Malaysia	X			X	X			X
Philippines	X			X	X			X
Singapore	X			X	X			X
South Korea	X			X		X	X	
Taiwan	X			X		X	X	
European Community								
Belgium	X		X		X		X	
Denmark		X	X			X		X
France	X		X			X	X	
Germany		X	X		X		X	
Great Britain		X	X		X			X
Greece	X			X	X		X	
Ireland		X	X		X			X
Italy	X		X		X		X	
Netherlands		X	X			X		X
Portugal	X			X		X	X	
Spain	X		X			X	X	
United States		X	X		X			X

(Hodgetts and Luthans, 1993, p.45)

4.2.3 Demand Conditions

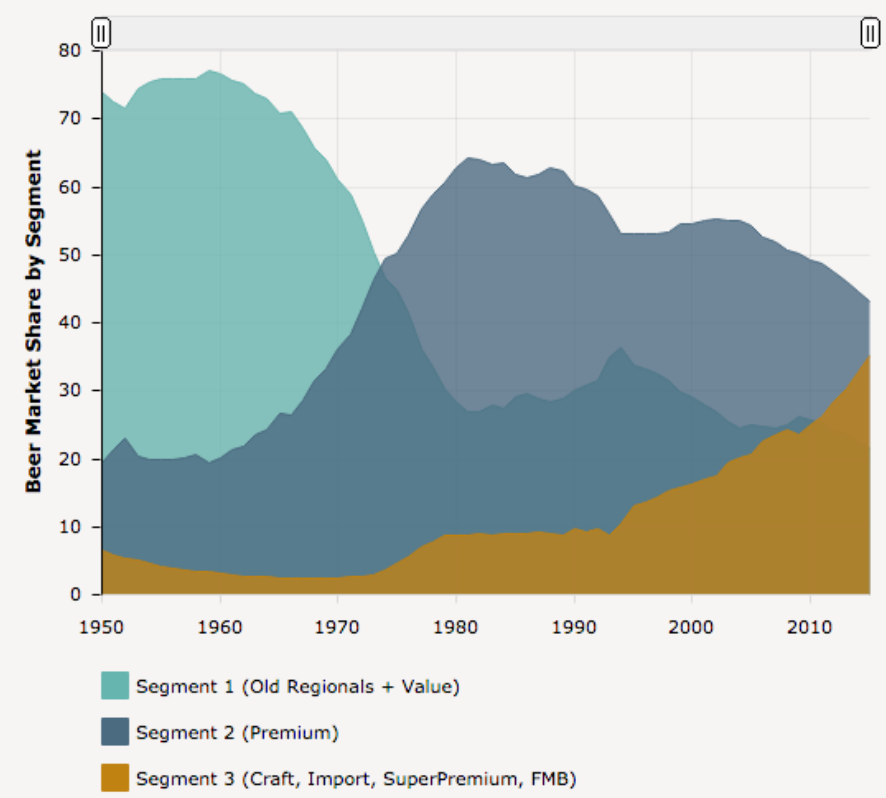
Theory states that when demand conditions in a country are uncertain, a firm should enter with low resource commitment, like a joint venture or licensing (Hill et al., 1990). When looking at demand in Germany for craft beer one must consider two factors, overall demand for beer and demand for craft beer specifically.

Germany is part of what is called the "Beer Belt," a string of countries in Europe where beer is the most popular alcoholic drink. This area includes Belgium, Ireland, the United Kingdom, Netherlands, Denmark, Germany, Austria, Luxembourg, Czech Republic, Slovakia, Poland, the northern and eastern cantons of Switzerland and the French regions of Alsace, Lorraine, and the Nord-Pas-de-Calais, and the Department of Ardennes (Ascher,

2012). Furthermore, according to the Food and Agricultural Organization of the United Nations in 2016, Germany is the largest beer producing country in Europe, and was fourth largest worldwide as of 2014 (Depenbusch et al., 2018). This is sufficient to show that Germany has a high demand for beer, but the question of demand for craft beer is more complicated to answer.

As stated in above sections, German preferences for beer are towards local breweries (Adams, 2006). Further, Germany has been slower to adopt the craft beer trend (Depenbusch et al., 2018). However, in the above section on exposure, several factors were discussed that point to this demand shifting as Germany is exposed to more craft beer, with data from Garavaglia and Swinnen (2018), Elzinga et al. (2018), and Depenbusch et al. (2018) supporting this claim. A graph from the Brewers Association (2016), seen in Figure 6, shows how drastically the demand for craft beer is rising. Further, Figure 7 shows a graph from Statistica (2017) showing the spike in growth in the share of beer imports in domestic consumption in Germany from the year 2001 to 2017.

Figure 6: Beer market share by segment over time



Watson (2016)

Figure 7: Share of beer imports in domestic consumption in Germany from 2001 to 2017

Statistica (2017)

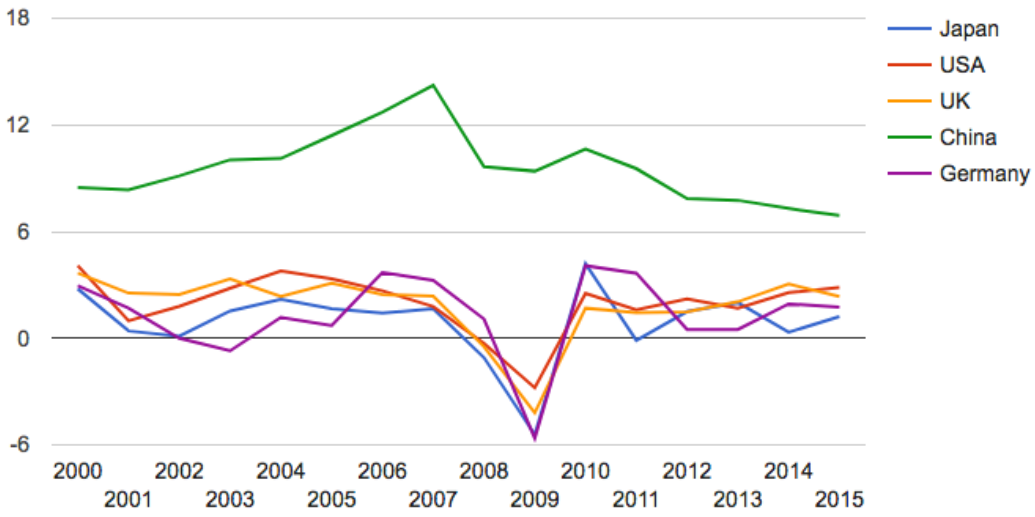
With this in mind, demand conditions in Germany can be assumed to be high enough for a firm to allocate resources. With all other factors being equal, theory would therefore suggest that a firm does not need to limit itself to licensing or joint venture when considering demand conditions for entering the German market.

4.2.4 Volatility of Competition

Hill et al. (1990) state that when rapidly changing technological, macroeconomic, social, demographic, and regulatory factors produce a situation of intense competition on the basis of price, marketing expenditures, or investments, a firm should invest less resources into a market and therefore enter with a joint venture or licensing. As already discussed in above sections, technological and regulatory changes have indeed changed global competition, yet left Germany comparatively unaffected by this competitive rise due to Germany's unique market and regulations. Economic and social factors are also relatively consistent, as can be seen in data from TheGlobalEconomy.com, which utilizes information from the World Bank and the Federal Statistics Office of Germany. As can be seen below, economic growth in Germany is consistent with that of other leading economic nations, with steady

growth (Figure 8), the population size is relatively steady (Figure 9), and employment is slowly on the rise (Figure 10). As the data shows no sign of unusual volatility, it would be safe for a firm to invest resources, and therefore enter with a wholly owned subsidiary.

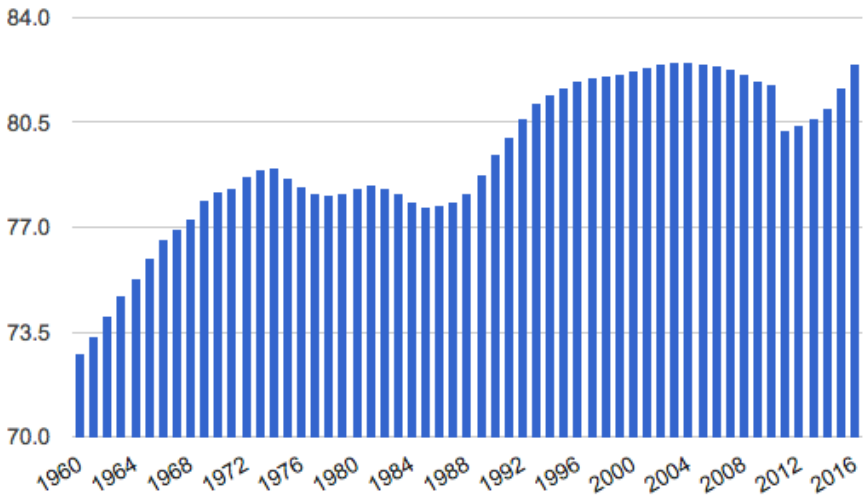
Figure 8: Economic growth - Rate of change of real GDP (Gross Domestic Product)



Measure: percent
Source: TheGlobalEconomy.com, The World Bank

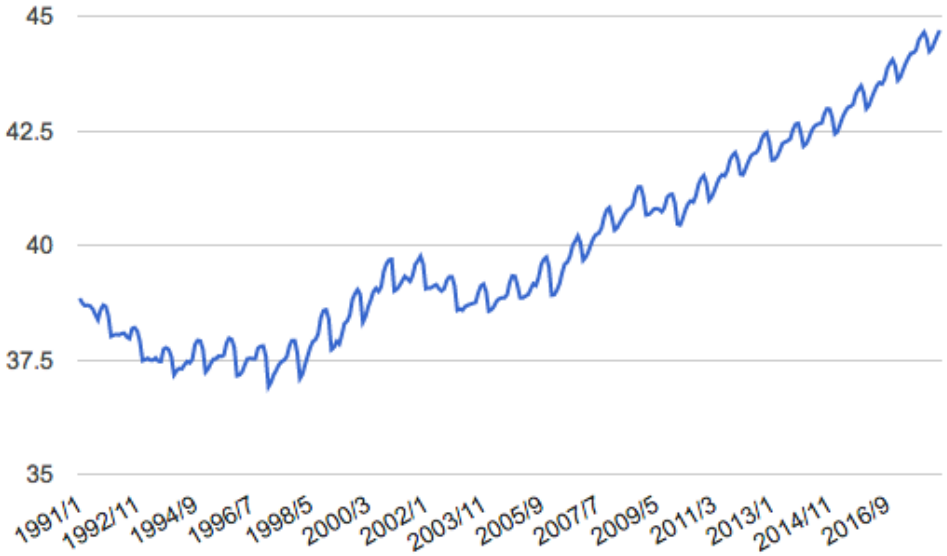
https://www.theglobaleconomy.com/compare-countries/

Figure 9: German population size over time



https://www.theglobaleconomy.com/Germany/Population_size/

Figure 10: German employment by millions of people over time



Measure: million employed people
Source: Federal Statistical Office of Germany

https://www.theglobaleconomy.com/Germany/data_employed_persons/

4.3 Transaction Variables in the German Craft Beer Market

The main transaction variables that affect the dissemination risk an MNC faces when entering a new foreign market, according to Hill et al. (1990), are the value of the firm-specific know-how that a firm holds, and the tacit nature of the know-how.

4.3.1 Value of Firm-Specific Know-How

Hill et al. (1990) argue that when the value of firm-specific know-how is high, the dissemination risk is high, and an entry of wholly owned subsidiary is suggested in order to suppress that risk. One might assume that dissemination risk is not a large factor in craft brewing, considering the turnover of craft brewers who have access to recipes, as well as the openness of certain breweries, like open source brewery Tin Whiskers Brewing Company, that shares all of their information and crowd sources recipes. However, this openness is not reflected throughout the entire market (Twbrewing.com).

Legal experts in the craft brewing market state that a craft brewery's intellectual property is the most valuable asset of the company. Further, as the industry expands it will only

become a greater issue (Donelson, 2015). While new technologies may be patentable, most beer recipes are not. This is due to the general nature of a beer recipe, as the combinations of such few ingredients are unlikely to be unique. There are exceptions, like the patent for colorless malt beverages, U.S. Patent 5,294,450 granted to Coors Brewing Company (Zima), or alcohol-free beer, U.S. Patent 5,077,061 to Christian Zurcher et al., but these are few and far between (Garrison, n.d.).

Instead, breweries must generally rely on a subset of copyright law, The Copyright Act of 1976, U.S. Code, Title 17, Section 101, called "work made for hire," when a recipe is prepared by an employee within the scope of their employment, or specially ordered or commissioned, if the parties agree in writing to consider it as such (Garrison, n.d.). With this, most beers created by an employee at a brewery are still considered owned by the brewery. The best protection for the intellectual property for breweries is to consider it a Trade Secret, which according to the Restatement of Torts, Section 757 (1939) is something meant to "protect any formula, pattern, device, or compilation of information that is used in your business and which provides an opportunity to obtain an advantage over competitors who do not know or use it" (Garrison, n.d.).

In order to be protected, however, trade secret owners must exercise efforts that are reasonable under the circumstances to maintain their secrecy. Firms must therefore be very careful with how they treat their intellectual property and recipes. Further, even if a brewery accidentally misappropriates the intellectual property of another brewery it can be held accountable (Donelson, 2015).

Germany itself, however, does not add to the risk of dissemination. The World Trade Organization states that both U.S. and all of EU are involved in TRIPS (Trade-Related Aspects of Intellectual Property Rights), protecting intellectual property rights between countries ("Understanding the WTO," n.d.) and German protections against dissemination are strong, with Section 17 of the Act Against Unfair Competition protecting business and trade secrets against unauthorized copying by employees and unauthorized use by anyone for the purposes of competition (Splittgerber and Rockstroh, 2013).

With all taken into account, although Germany does not add to the risk of dissemination, and although there are some legal protections in place, the value of firm-specific know-

how is still high in the craft-brewing field. Therefore, with all other things equal, theory would still therefore suggest that entry with a wholly owned subsidiary would be safest.

4.3.2 Tacit Nature of Know-How

Hill et al. (1990) state that when the tacit nature of know-how is high, which by definition means it is difficult to share, a wholly owned subsidiary is recommended. Thurnell-Read (2014) argue that craft skills often draw on tacit knowledge, and craft brewing is certainly a craft skill. They conducted interviews throughout craft breweries and found that most brewers had shadowed an experienced brewer or worked in an established brewery to hone their skills before starting their own brewery, with many reporting this as more helpful than their formal training.

While it is clear that craft brewing has a tacit nature, the above information also shows that the tacit aspect applies more to brewing as a whole than to brewing for a particular brewery. It is therefore safe to say that the tacit knowledge required to brew in a particular craft brewery is not great enough to require a brewery to enter with a wholly owned subsidiary, as the market will still have craft brewers with similar enough skills to follow the recipe or brewing procedure. As each brewery may still have different protocols, a joint venture may be ideal in making certain that the moderately tacit know-how is shared effectively.

4.4 Summarizing and Weighing of Variables

Each of the above variables has been taken into consideration as an independent variable. For strategic variables, which relate to the resource based view, the following information was found: (1) The extent of national differences is high enough that a low control mode would be recommended, like licensing or joint venture; (2) The extent of scale economies is low enough that a high level of control is not necessary, therefore a low control mode like licensing or joint venture can be used; (3) The global concentration of competition is high enough that a high control mode is necessary, therefore a wholly owned subsidiary is recommended.

For environmental variables, which relate to the institutional theory, the following was found: (1) The country risk is low enough that high resource commitment can be used,

therefore a wholly owned subsidiary is recommended; (2) The location familiarity is high enough that high resource commitment can be used, therefore a wholly owned subsidiary is recommended; (3) The demand conditions are high enough that high resource commitment can be used, therefore a wholly owned subsidiary is recommended; (4) The volatility of competition is low enough that high resource commitment can be used, therefore a wholly owned subsidiary is recommended.

For transaction variables, which relate to the transaction cost analysis, the following was found: (1) The value of firm specific know-how was high enough that the dissemination risk is high, making a wholly owned subsidiary the safest option; (2) The nature of the know-how is moderately tacit, not causing excessive difficulty in sharing the information, therefore joint venture is the ideal mode of entry. This information is summarized in Table 7.

Table 7: Summary of findings

Variable (Hill et al., 1990)	**Level**	**Construct**	**Entry Method**
Strategic Variables		***Control***	
Extent of national differences	High	Low	Licensing/JV
Extent of scale economies	Low	Low	Licensing/JV
Global concentration	High	High	WOS
Environmental Variables		***Resource Commitment***	
Country risk	Low	High	WOS
Location familiarity	High	High	WOS
Demand conditions	High	High	WOS
Volatility of competition	Low	High	WOS
Transaction Variables		***Dissemination Risk***	
Value of firm-Specific know-how	High	High	WOS
Tacit nature of know-how	Moderate	Moderate (difficulty)	JV

However, for real world application one must weigh the variables to pick a mode of entry, as some variables can have a greater importance in practice. Though the tradeoffs involved in the market entry decision will always be specific to the firm that is entering the market, Hill et al. (1990) state that when the competitive advantage of the firm is dependent on their know-how, or when strong leadership is needed to navigate a global oligopoly, that

these variables be considered with heavier weight than the others. As both of these situations apply to the craft beer market, it can be stated that a wholly owned subsidiary is the most logical form of market entry for a craft brewery entering the German market.

5 Case Study - Stone Brewing

Although market entry theory suggests a wholly owned subsidiary is the strongest mode of entry for a craft brewery entering Germany, until recently it had not been done. Stone Brewing became the first American craft brewer to independently build, own, and operate a brewery in Europe when it entered the German market with Stone Brewing - Berlin in 2015. For this reason, the following section will discuss Stone Brewing in further detail to better understand the factors involved. This section will be broken down into an introduction to Stone Brewing, its speed of growth, its stance on advertising and competition, its distribution, its entry into the German market, and a short discussion. All information for the following sections is taken directly from StoneBrewing.com unless otherwise stated.

5.1 About Stone Brewing

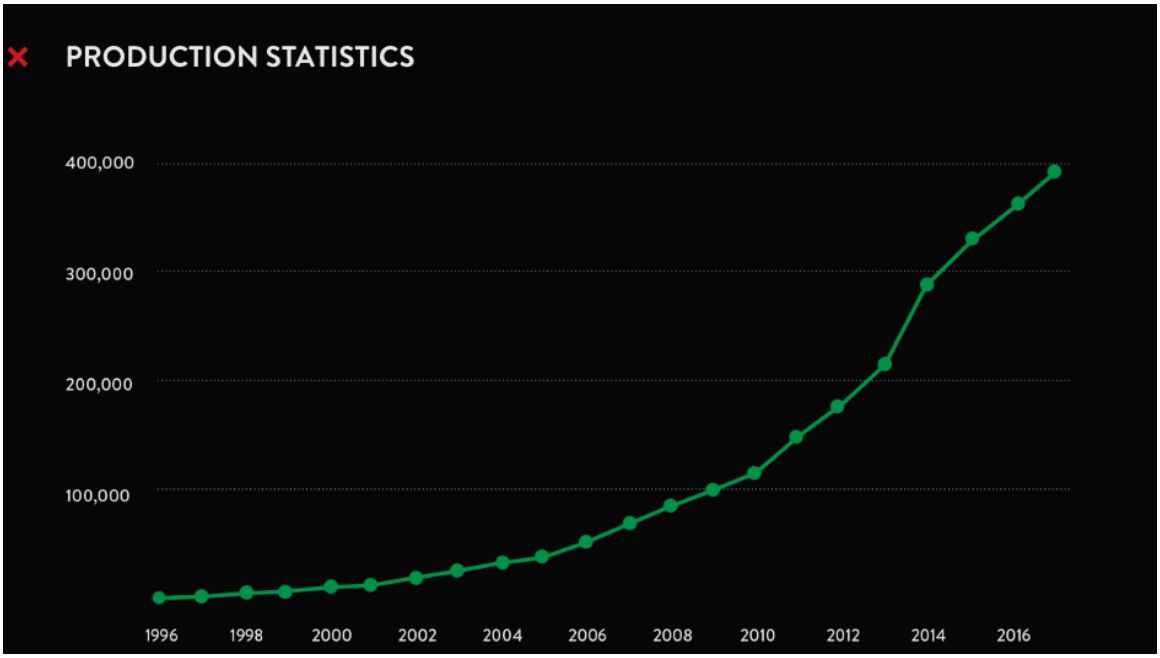
Stone Brewing was founded in San Diego, California in 1996 by Greg Koch and Steve Wagner. Since then it has become the eighth-largest craft brewery in the United States, with additional breweries in Richmond, Virginia and Berlin, Germany. It proclaims its quest is to "show the public that there are more…and better…choices beyond the world of industrial beer" and that its goal is to "brew outstanding, unique beers while maintaining an unwavering commitment to sustainability, business ethics, philanthropy, and the art of brewing" (StoneBrewing.com). The company is outspoken about its European inspiration to fight against low quality ingredients, pasteurization, and chemical additives, and has been named the "All-time Top Brewery on Planet Earth" by BeerAdvocate magazine twice.

5.2 Speed of Growth

In its first year Stone Brewing produced 400 barrels of beer, approximately 12,400 gallons. As context, that year the mass brewing company Anheuser-Busch sold 91.1 million

barrels, approximately 2,824 million gallons. Since then Stone Brewing has averaged 40% year-over-year annual growth (see Figure 11), and was on Inc. 500's "5000 Fastest-Growing Private Companies" list for twelve years and San Diego Business Journal's "Top 100 Fastest Growing Private Companies" twelve years in a row. As of 2017 it was brewing 388,000 barrels per year.

Figure 11: Stone Brewing production in barrels over time



(https://www.stonebrewing.com/about/facts)

5.3 Advertising and Competition

Stone Brewing's approach to advertising and competition varies significantly from that of mass breweries. It relies on word-of-mouth to advertise, and has never paid to advertise in print or broadcast media, or discounted its beer. Further, it "view[s] fellow craft breweries as compatriots, not competitors, and embrace[s] collaboration, integrity and quality as the hallmarks of [its] business," (StoneBrewing.com) having consistent collaborations with other craft breweries.

However, Stone Brewing's aggressive brand personality works as a form of advertisement, as well as its outspoken critique of mass breweries. Below is the text printed on the packaging of one of its products, Arrogant Bastard Ale.

"This is an aggressive beer. You probably won't like it. It is quite doubtful that you have the taste or sophistication to be able to appreciate an ale of this quality and depth. We would suggest that you stick to safer and more familiar territory—maybe something with a multimillion-dollar ad campaign aimed at convincing you it's made in a little brewery, or one that implies that their tasteless fizzy yellow beer will give you more sex appeal. Perhaps you think multimillion-dollar ad campaigns make a beer taste better. Perhaps you're mouthing your words as you read this.

At Arrogant Brewing, we believe that pandering to the lowest common denominator represents the height of tyranny—a virtual form of keeping the consumer barefoot and stupid. Brought forth upon an unsuspecting public in 1997, Arrogant Bastard Ale openly challenged the tyrannical overlords who were brazenly attempting to keep Americans chained in the shackles of poor taste. Since the very beginning, Arrogant Bastard Ale has reveled in its unprecedented and uncompromising celebration of intensity. There have been many nods to Arrogant Bastard Ale...even outright attempts to copy it…but only one can ever embody the true nature of Liquid Arrogance!"

Its stance against mass brewers has not gone unnoticed. While it collaborates regularly with other craft brewers, it has a hostile relationship with mass brewers. Stone Brewing announced a new consortium in 2016 called the "True Craft consortium," pledging $100 million to combat the influence of corporate money in the craft sector by providing an alternative investment platform for independent craft food and beverage companies (Anderson, 2016). Stone Brewing cofounder Steve Wagner said in a press release "This is about setting up a consortium so we can not just survive, but continue to thrive in a world in which craft is being co-opted by Big Beer" (Anderson, 2016). The most recent clash between Stone Brewing and mass breweries is a lawsuit, United States District Court Case no. 18CV0331 BEN JMA, Stone Brewing Co vs. Molson Coors brewing company - filed February 12, 2018 by Stone Brewing against MillerCoors, a subsidiary of AB-InBev, for rebranding its new packaging for Keystone Lite Beer as "Stone lite" ("Stone vs. Keystone Lawsuit," 2018).

5.4 Distribution

As of 2017, Stone Brewing has expanded its distribution to all 50 states in America. Further, Stone has extended its reach internationally with partnerships around the world, having one partner per country/region to aid in distribution in Canada, Costa Rica, Mexico, Panama, Puerto Rico, Austria, Belgium, Czech Republic, Denmark, Estonia, France, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Northern Ireland, Norway, Poland, Russia, Slovakia, Spain, Sweden, Switzerland, Turkey, the UK, Hong Kong, Japan, Korea, Philippines, Singapore, Taiwan, Thailand, and Australia. Distribution to China is being carried out through expedited cold chain distribution, with the temperature being tracked throughout the entire process ("Stone Brewing Officially Launches in China," 2017), and as of July 2018, Stone Brewing is the first American craft brewery with an outpost in China, having opened a tap room with 30 beers on tap (Peter Rowe, 2018).

Like many small breweries, Stone Brewing had trouble in finding distributers for its beer when it first started out, so it developed its own distribution company, called Stone Distributing Co., to distribute its own beer as well as beer from other small brewers. Creating this larger portfolio allowed it to get shelving space and keg placement, as well as ensure the delicate process of transporting the craft beer was done correctly. The quality is controlled during transportation by keeping the beer refrigerated 100% of the time while in storage and during delivery, with two refrigerated warehouses and a fleet of refrigerated, biodiesel-powered trucks. All drivers must also go through the independent Cicerone Certification Program to learn to handle beer without damaging it. It currently distributes 46 different brands over a 40,000-square-mile service area in Southern California.

5.5 Market Entry into Germany

Stone Brewing published its formal Request For Proposal to evaluate potential sites for a brewery in Europe in 2009, and looked at over 130 different sites in nine different countries before deciding on Berlin for Stone's European expansion. It announced its plans in 2014 and converted a former gasworks facility, built in 1901, to encompass a brewhouse, bistro and garden, packaging and distribution hall, and event space. Stone Brewing invested $29 million on the brewery, which offers 75 beers on tap with a combination of its own beers and guest beers (Kirschbaum, 2017). Cofounder, Greg Koch,

stated that he picked Berlin based on the site itself, and not necessarily the city ("Berlin isn't really a beer city yet," 2015). In 2015 the company released its first Berlin-brewed beers at more than 40 locations across Europe, with the help of collaborators in each of the countries. Starting in 2016 Stone Berlin began distributing their beer in cans, the preferred distribution method of American breweries.

In a 2015 interview with Median.com ("Berlin isn't really a beer city yet," 2015), Greg Koch was asked about potential concerns in entering the German market. He responded that in his opinion *"Berlin is not really a beer city yet. There are very few beer cities in Germany. Depends on what your definition is."* He reasoned that San Diego county and Berlin are virtually the same population size, 3.4 million people and 3.5 million people respectively. In Berlin there are approximately fifteen bars or restaurants with ten or more craft/specialty beers on tap, while in San Diego there are over a thousand. He continues that when they started Stone in 1996 in San Diego, there were also about fifteen. Further, he states that there are 115 breweries in San Diego, and only around 22 in Berlin, and he believes Berlin will follow the same trajectory.

When asked whether he thought Germans would be a tough crowd due to the traditional beer culture already established, he responded that he disagrees that Germans are a tough crowd, and they are not nearly as tough as people in the U.S. twenty years ago, as they are much more open. He followed this up by stating:

> *"But you can only expect that people will have opinions. And really, that's an opportunity. Like Steve Jobs famously said, 'People don't know what they want until you show it to them.' That's why he never believed in focus groups. He said, why would I ask someone what they're looking for? And Henry Ford famously uttered [many] years ago, 'If I had asked people what they wanted, they would have said faster horses.' So our job is to make the beer we think is amazing, make it to the pinnacle of what we think it can be. We don't have any attitude like* ours is best *or anything like that. We'll let people decide for themselves if they like it or not."* He concluded by saying *"People ask me all the time whether or not I'm afraid if people in Berlin or Europe won't like my kind of beer. And my answer is no. When we opened twenty years ago in San Diego, nobody liked our kind of beer then. I have a*

> *lot more people interested in showing up to our opening day here in Berlin than I ever dreamed of having [back then]"* ("Berlin isn't really a beer city yet," 2015).

This speaks volumes on the managerial culture of Stone Brewing, as well as its mindset on entering the German market. The management at Stone Brewing also responded to questions regarding the Reinheitsgebot and its effect on the brewery, saying:

> *"While 95 percent of the beer we brew at stone meets the Reinheitsgebot, we don't brew any of our beers with it in mind. We simply brew the beers the way we want to, and we're not interested in an antiquated tax law from the 1500s dictating our decision. Anyone who thinks the Reinheitsgebot equals purity is spending too much time listening to marketing rhetoric"* (laurence, n.d.).

This statement was matched with an equally bold event on the 500th anniversary of the Reinheitsgebot, where Stone Brewing hosted a Reinheitsverbot, or "purity ban," event featuring only non-Reinheitsgebot-qualifying beers from both Stone Brewing and other German breweries to emphasize the creativity that could be found in Germany (Peña, 2016). While data on the earnings of the brewery in Berlin has yet to be released, publications covering the move can help to determine the overall level of success and the reactions the brewery is eliciting in Berlin.

According to Nina Anika Klotz, the founder of Germany's largest craft beer magazine, Hopfenhelden, the reputation of American beer in Berlin is that it is tasteless and watery, but those who are trying it are reportedly changing their minds, citing several favorable reviews from patrons. Klotz states that the two major problems for Stone Brewing in Germany are the relatively high prices and the fact that it sells beer in cans. Even though craft brewers use cans to better preserve the freshness, in Germany the connotation of beer in cans is that it is cheap, and Germans are used to drinking beer from bottles in order to recycle them (Kirschbaum, 2017). With that being said, reviews for Stone Brewing - Berlin seem to be favorable across the board on online platforms, with Tripadvisor, Facebook, Google, and Yelp reviews all averaging between four to five stars, out of a total possible five stars.

In May of 2018, less than two years after the opening of the brewery in Berlin, Stone Brewing opened a second taproom in a more central neighborhood of Berlin, Prenzlauer Berg (Nurin, 2018). The taproom has 27 beers on tap, both from Stone Brewing and from guest breweries. Cofounder Greg Koch stated that he chose the neighborhood because he loved renting an apartment there while building the first brewery in Berlin. In response to speculation that the second tasting room was built because the larger brewery is located too far away from city center, the CEO, Dominic Engels, responded:

> *"We knew all along that our Mariendorff location would be challenging in distance for Berliners, but that's not unlike Stone. Our flagship location is actually about 40 minutes by car outside of downtown San Diego. We then opened Stone Brewing World Bistro & Gardens – Liberty Station in downtown San Diego… We didn't do this because we needed to, but because we found the right space, we knew that each would offer its own experience and we knew that there would be enough interest for them all. The same mentality goes here. These will be two very different experiences and we're confident that there's room for both of them. … Stone Brewing World Bistro & Gardens – Berlin is doing well. We have an ambitious space to fill and our location makes us a true destination for many"* (Nurin, 2018).

With positive reviews, as well as the opening of both the new taprooms in Berlin and Shanghai, it appears as though Stone Brewing is thriving with its choice of market entry. This holds consistent with the 9.3% increase in production the company reported for 2017. However, it should be noted that this move came with a restructuring of staff, with Stone Brewing releasing a statement after the move in 2016 that it needed to lay off approximately 5% of its team, citing a decline in the domestic growth for its category, as well as its recent investments. Overall, the growth Stone Brewing has exhibited since entering the German market, combined with its good press and favorable reviews, suggests the market entry has so far been a success.

5.6 Discussion

Looking at the Eclectic Framework presented by Hill et al. (1990), the best form of entry for a craft brewery entering the German market is a wholly owned subsidiary. Why then is Stone Brewing thus far the only craft brewery to have entered the market in this way?

Looking at the data discussed in the previous sections, it seems the most likely answer is a combination of barriers to entry and the nature of craft breweries.

As discussed in the above sections, the German market has heavy barriers to entry for craft breweries to face. Consumer preferences, though shifting, still favor highly local German breweries; German consumers are price sensitive and used to cheaper alternatives to craft beer; the Reinheitsgebot makes it more difficult for craft beer to enter the market and in turn consumers are less accustomed to craft beer; and the Tied House system allows local brewers to control the retail market while keeping a barrier to stop new microbreweries from entering. Though these barriers are all technically navigable, craft brewers still need the desire to surpass them. For the most part, craft breweries are local in nature. With craft breweries often defining themselves as "small breweries" or "local breweries," it is unsurprising that not many craft breweries are attempting to push past barriers to entry to enter an entirely new, and often high-risk market.

On the other hand, Stone Brewing is known for being a particularly innovative and headstrong brewery, lead by a team famous for taking risks and stating they are doing so for "the greater good of beer." Every business decision comes down to the individuals managing the decisions, and the culture of the firm itself. Taking into consideration the culture of Stone Brewing and the way the brand portrays itself, it can be reasonably assumed that this is the root of the difference between them and other craft breweries in making this entry decision despite the barriers.

6 Conclusion

In this paper market entry theory was used to decide the best mode of entry for a craft brewery entering the German beer market. The market entry modes of licensing, joint venture, and wholly owned subsidiary were compared, as these are the most relevant entry modes for craft breweries due to the cost and difficulty of exporting. The most commonly applied market entry theories, Transaction Cost Analysis, Resource Based View, and Institutional Theory were discussed, as well as the Eclectic Framework originated by Dunning (1977). Hill et al. (1990)'s paper, which uses the eclectic theory to discuss the choice of international entry mode, was broken down in order to compare the effect that

different variable groups have on constructs that dictate an entry choice: namely the level of control a firm keeps, the resource commitment they must make, and the dissemination risk of the entry method.

Each factor of the above theory was examined as it pertains to the German beer market, as well as the craft beer industry as a whole. For strategic variables, the extent of national differences was great enough to warrant a firm using a low control mode of entry like licensing or a joint venture, and the extent of scale economies in Germany was not great enough to add sufficient profit by entering in a high control mode like a wholly owned subsidiary, so licensing or joint venture would be acceptable. Conversely, the global concentration of competition in the beer industry would make it useful for a firm to have the control that comes with a wholly owned subsidiary. For environmental variables, the country risk, location familiarity, demand conditions, and volatility of competition were all favorable enough that a firm would not need to avoid committing resources to enter the market with a wholly owned subsidiary. Lastly, considering transaction variables, a firm might be concerned enough about the value of their firm-specific know-how to want to enter with a wholly owned subsidiary to protect it. However, information is not so highly tacit in nature that it would particularly need a wholly owned subsidiary to be shared.

Taking into consideration the importance of value of firm specific know-how and global concentration of competition, a wholly owned subsidiary was found to be the best mode of entry for a craft brewery entering the German market. The market entry of Stone Brewing into Berlin was studied to see this theory in practice, and it was found that it has been successful in the few years since its entry, yet it remains the only craft brewery to enter the market in this fashion so far. This is likely due to the nature of craft breweries to serve a local market, combined with the barriers to entry of the German market in particular. The management and business culture of Stone Brewing seems to be the defining factor in why it entered the market with a wholly owned subsidiary where others have not. It will be interesting to see whether the potential success of Stone Brewing in the German market, combined with the continued growth of the craft brewing market, will lead to further market entry of craft breweries in the future.

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