TOWARDS A CONSISTENT ACCOUNT OF FIRM SURVIVAL

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University of Tasmania
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CERTIFICATION

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ABSTRACT

This study commenced with an interest in the question; why do some firms survive for considerably longer periods of time when other apparently similar types of firms operating under apparently similar conditions do not? Considering this issue in the context of the Hobart pizza industry led to the initial discovery of a very interesting paradox; an increase in apparent competition over time was associated with increased firm survival. Thus, this study sought to explain why firms appear to gain a survival advantage in the face of apparent competition.

A theory-building methodology from the critical realism paradigm was used to facilitate an explanation-based case study approach. The process of retroduction was used to develop a novel explanation of firm survival, incorporating a stratified reality in which mechanisms, events and experiences exist. Thus, the study sought to confirm or disconfirm the operation of a generative mechanism and describe the contingent conditions under which it operates and/or is suppressed.

The study proceeded through two distinct phases. First, the history of the Hobart pizza industry (1975 to 2005) was recorded and its development was compared to three other independent market places in northern Tasmania and Victoria across the same (general) period of time. From this process, five specific areas of focus emerged through which the events related to an unobservable mechanism seemed explainable. Those areas were; non-harmful relations, environmental heterogeneity, the ability of firms to alter their environment, the presence of an invisible energy, and lastly, firm survival. From a review of the organizational studies and broader ecological literatures, an initial model of Transferred Demand emerged.

Second, the empirical investigation of the proposed Transferred Demand model occurred in North Yorkshire (UK), covering the period 1975 to 2004. Strong support for the postulates suggests that the proposed model of Transferred Demand has empirical strength as a new and innovative explanation of firm survival. Importantly, during the second phase of the study the specific transfactual conditions related to the operation of Transferred Demand where determined.

In summary, this study solved the initial contradiction of increased apparent competition occurring alongside increased firm survival by enlisting a range of broader ecological theories to redefine what competition actually is. An important opportunity for future research arising from this study is the need to better understand the positive and negative coactions occurring between franchised firms and independent firms during the process of franchisation.
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GLOSSARY OF TERMS

Carrying Capacity: The maximum population size that can be supported indefinitely by a given environment (Begon, Harper, and Townsend, 1990). Within this Study: Used to highlight the variance in resource abundance between towns.

Character Displacement: The divergence of adaptations and/or other characteristics in two similar species in share habitats (Brown and Wilson, 1956). Within this Study: Used to highlight the (converging and diverging) change in interacting properties of firms within the study.

Coaction Theory: An account of the nine qualitative forms of interaction between any two entities. (Haskell, 1949). Within this Study: Used to model the range of negative, neutral and beneficial interactions occurring between guild members.

Commensalism: A discrete type of relation in which one entity benefits and the other remains unharmed (see Van Beneden, 1869). Within this Study: Used to highlight those non-harmful relations between franchised and non-franchised firms in which the non-franchised firms actually gain.

Ecological Scale: An acknowledgement the ecological patterns and process are frequently observed differently at different levels of scale (Wiens, 1989). Within this Study: Consideration of how energy flows and firm interactions can be viewed differently once data is aggregated.

Ecosystem: A discrete unit that consists of living and non-living parts interacting to form an ecological system (Odum and Barrett, 2005). Within this Study: Used as a general descriptor for the areas of investigation.

Ecosystem Engineering: Organisms that directly or indirectly control the availability of resources to other organisms by causing physical state changes in biotic or abiotic materials (Jones, Lawton and Shachak, 1994). Within this Study: Used to highlight the nature of environmental alteration occurring from normal and non-normal firm activities.

Emergy: Available (or stored) energy of one kind previously required directly and indirectly to make a product or service that can be converted into useful energy by other entities within an ecosystem (Odum, 1996). Within this Study: Used to reconceptualise the potential ‘energy’ value of other firms’ advertising.

Extent: The total geographical area covered by an investigation (Wiens, 1989). Within this Study: Used to illustrate the overall area under investigation in Tasmania, Victoria and North Yorkshire.

Facilitation: Positive interactions due to resource sharing within a guild (Rathcke, 1983) Within this Study: Used to illustrate the beneficial influence of pizza shops in local towns, vis-à-vis reduced levels of local advertising.
Foraging Efficiency: A determination of how successful an individual is in responding to a reduction in the density of available prey (Krebs and Davies, 1997). Within this Study: Used to illustrate the amount of consumers attracted vis-à-vis the amount of effort used to attract customers.

Franchisation: Term coined during this study to refer to the change in resource flows between independent firms and the environs they operate within due to the operation of franchised firms. Within this Study: Used to describe a process that up until now has not been describe in the organizational studies literature.

Functional Redundancy: The notion that different species perform the same functional role in ecosystems so that changes in species diversity does not affect ecosystem functioning (Lawton and Brown, 1993). Within this Study: Used to illustrate other possible causes of sub-population demise.

Generative Mechanism: Unobservable social, physical, psychological processes that under specific conditions have the potential to transfer energy, information, or matter to other entities (Bennett and George, 2003). Within this Study: The technical term used to describe the initial assumptions that a force (i.e. Transferred Demand) was an explainable feature of the observed firm survival.

Grain: the size of the individual units of observation (Wiens, 1989). Within this Study: Used to highlight and explain the importance of making observation at different levels of scale.

Guild: A group of species that exploit the same class of environmental resources in a similar way (Root, 1967). Within this Study: To provide an intermediate level of analysis between community and populations, thus enabling a better focus upon the interactions occurring between different types of restaurants in individual towns.

Mutualism: Relationship between two species in which the growth and survival of each population benefit (Odum and Barrett, 2005). Within this Study: Used to differentiate commensalistic relations and other established forms of coaction.

Niche Construction: An evolutionary process through which an entity modifies the feature-factor relationship between itself and its environs, thus altering its relative fitness and that of its off-spring (Odling-Smee, Laland and Feldman, 2003). Within this Study: Used to explain the processes through which firms acted in a manner that altered the nature of firm-environment interactions.

Resource Partitioning: any difference in the resource utilization among species (Tokeshi, 1999) Within this Study: The manner in which firms attract different types of customers, operate at different locations and serve different forms of food.

Retroduction: A form of reasoning separate from deductive and inductive reasoning (Peirce, 1908). Within this Study: A process used to develop plausible models of a mechanism, which if it were to exist would explain the nature of firm survival observed at the very beginning of the study.
Selective Neighborhoods: The notion that knowledge of differential relative fitness (across time and space) of apparently similar firms within a population will highlight different selective neighborhoods (Brandon, 1990). Within the Study: Used to explain the observed differential survival rates occurring in seemingly similar towns.

Sessile: Sedentary, fixed to one spot (OED Online, 2009). Within this Study: Reference to firms that trade from a fixed location (i.e. a restaurant).

Succession: Modification of the environment across time and space in ways that influence the survival prospects of new species on a patch by patch basis (Warming, 1909). Within this Study: Acknowledges that the rate and nature of development from one town to the next was occurring with neither timing nor pacing in sync.
CHAPTER 1
Introduction

Prologue: Prior to beginning the research project, it is worthwhile pausing to reflect on my personal experiences prior to commencing this research journey. Having developed and managed a large franchise chain in Tasmania for several years; I bring to this study a practical way of thinking about firm survival. I have found myself drawn to the works of Aldrich (1999) and others who approach the subject from an evolutionary perspective for one main reason. Life (and therefore business) is unpredictable and theories that aim to achieve high predictability have never really impressed me. Evolutionary theory on the other hand is used to explain past events, with the explainer being responsible for accommodating the indeterminacy of outcomes. That is, we must avoid at all cost “viewing earlier events as though they were controlled by their subsequent outcomes” (Aldrich, 1999, p. 33).

I feel that a personal strength I bring to this study is an intimate (and pragmatic) understanding of how events in business frequently unfold in chaotic manner with the role of luck and timing never far from the truthful explanation of events. Put simply, I believe my past experiences in multiple business contexts will enable me to access, explore and where necessary suspend judgement of the business landscapes this study will traverse. This ability has of recent times being honed by my own reflections of ‘failing’ in business in many frequent small ways, and also in a large and life-changing way. I feel these subsequent reflections of my time in business have heightened my sensory abilities to probe beyond the obvious and commonly held explanations of firm survival to continually search for other less apparent reasons.

So as I enter the field to commence the research process, I do so as an enthusiastic novice researcher with scars and wisdom to match those of my subjects. In a sense, I am going home.

1.1 The initial research problem

How new organizational forms emerge and are retained and/or adapted in the genesis of new populations is a fundamentally important question in the domain of organizational studies (see Aldrich, 1999). The last chapter of Aldrich’s now landmark Organizations
Evolving serves as an invitation for the use of evolutionary theory to further advance our understanding of many issues related to the nature of firm survival in our local, national and global economies. This thesis accepts the challenge to contribute to this unfolding agenda of discovery, entering the field to explore the issue; *why do some firms survive for considerably longer periods of time when other apparently similar types of firms operating under apparently similar conditions do not?* Despite an increasing focus on the subject of firm survival (see Vernon, 1966; Utterback and Abernathy, 1975; Williamson, 1975; Jovanovic, 1982; Abernathy and Clark, 1985; Mata and Portugal, 1994; Audretsch, 1995, Ericson and Pakes, 1995; Klepper, 1996; Caves, 1998; Agarwal and Audretsch, 2001), such simple questions about firm survival remain difficult to answer satisfactorily.

The above noted studies do not inform the reader greatly about how the collective actions of firms (vis-à-vis firm survival) can be understood from a historical and local perspective with implications transferable to higher levels (i.e. nationally or globally). Aldrich implores researchers to address the subject of such social change (e.g. firm survival) in more *encompassing* ways to ensure we develop a greater understanding of how the collective behaviours of firms are accounted for. At present, it is argued that the middle ground held by pragmatic researchers (e.g. Haveman, 1992; Amburgey, Kelly, and Barnett, 1993; Bruderer and Singh, 1996) offers the best opportunity to reduce the influence of extreme arguments of either environmental selection (e.g. Hannan and Freeman, 1977; 1989) or firm adaptation (e.g. Tushman and Romanelli, 1985; Levitt and March, 1988). Restated, it is considered that the unifying agenda of Levinthal (1991)
provides the means to consider the fullest array of factors associated with the interaction of firm and environment, without assuming the superiority of one over the other.

A related challenge within the domain of organizational studies has been determining the appropriate level/s of analysis to conduct firm survival research (see Davidsson and Wiklund, 2001). This issue would seem closely related to the challenge of developing an encompassing way to explain such social phenomena. An immediate challenge is present in trying to side step the extreme arguments of environmental selection (e.g. Hannan and Freeman, 1977; 1989) or firm adaptation (e.g. Tushman and Romanelli, 1985; Levitt and March, 1988) that tend to place too much emphasis on a particular way of viewing the research task. Throughout this thesis, an attempt will be genuinely made to consider all forms of ecological and evolutionary theory to reconnect to the past intentions of Young (1988) that any such application of ecological and evolutionary theory in the social domain should be deliberately conducted in an inter-disciplinary manner.

The adoption of an inter-disciplinary approach provides access to a potentially more encompassing explanation of the events under investigation and also gives rise to the need keep an open mind on how ecological and evolutionary theory/methods might be used investigate firm survival. This commitment is particularly noticeable in the initial decisions taken as to the level/s of analysis deemed appropriate for this thesis. As illustrated in Figure 1.1 below, the parameters (and specific focus) of the investigation attempted in this thesis are framed by the issue of determining the appropriate level and scale of analysis. As will be explained in much detail, the importance of accounting for 1)
the level (or unit) of analysis and 2) the scale of analysis cannot be understated. Let us consider how the issue of determining how the level of analysis was influenced by adopting an inter-disciplinary approach. The following discussion attempts to demonstrate the consequences for research design that flow from such an approach.

**Figure 1.1 – The Level and Scale of Investigation**

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<td>Macro-Level</td>
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<td>Community</td>
<td>Meso-Level</td>
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<tr>
<td>Guild</td>
<td>Micro-Level</td>
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<tr>
<td>(Sub-)Population</td>
<td>The Region</td>
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<tr>
<td>Firm</td>
<td>Types of Towns</td>
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<tr>
<td>Individual</td>
<td>Each Town</td>
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Informed by: Root’s (1967) work on ecological guilds; Wiens’s (1989) work of ecological scale; Baum and Singh’s (1994) work on the levels of ecological hierarchies

As illustrated above in Figure 1.1, a hierarchy of ecological levels and scales is accommodated in this study. Whereas past work in this area has typically debated the
importance of the level (or unit) of analysis\(^1\) (see Baum and Singh, 1994; Davidsson and Wiklund, 2001), the issue of the scale of enquiry would seem not to have been discussed in such studies. Scale however is a fundamental issue in the broader ecological literature and therefore cannot be ignored in a truly inter-disciplinary study of firm survival. Within this study (and consistent with Wiens, 1989) scale is used to allow the researcher to consider the extent to which explanations at one level are consistent with or inform explanations at another level (e.g. from the regional level, to the individual town level).

The focus of the study is the survival of pizza firms. Firms that are typically sessile in nature; located alongside other similar producers of food and who are typically located in discrete towns. As a consequence each firm has the potential to interact with other pizza firms and/or other similar types of firms (e.g. Chinese or Traditional English) that seek to exploit local resources in a similar way. This combination of locally competing firms is best described as a guild\(^2\) (Root, 1967) and provides a more intermediate level of analysis (between population and community, as noted in Figure 1.1) than what is typically used. Unlike other studies that have investigated the survival of large corporations that operate across vast geographic areas (e.g. Carroll, 1984), this study is focused on small firms that are present across vast geographic areas, but operate in small locations that are typically discretely defined (i.e. by town boundaries). Therefore, and consistent with standard practice in the field of landscape ecology (see Wiens, 1989), how the firms (focused upon) scale their environment determines how they are investigated. Put simply, pizza

\(^{1}\) It is accepted that when using an evolutionary/ecological approach to the study of organizations care must be given to appreciate the hierarchically nested levels of entities that interact in important ways (see Baum and Singh, 1994).

\(^{2}\) Root (1967, p. 335) first used the term ecological guild to refer to “a group of species that exploit the same class of environmental resources in a similar way”
firms (and other guild food members) operate in discrete local environs and therefore our observations/measurements must fall within the same domain though the domains may vary across local environs. So, as indicated in Figure 1.1, this study examines the issue of firm survival of pizza firms at the levels of the ecosystem, guild, population and individual firm across several scales; the region, type of towns, and individual towns. In Figure 1.1, the levels of community and Individuals has been bypassed due to 1) the inclusion of guilds as a more specific level of analysis and 2) the inability to collect data at the level of the individual across the time period under investigation.

A second and related issue is the actual phenomena under investigation. The research process unfolds across two distinct phases. At the commencement of the first phase, consideration was given to the general question; why do some firms survive for considerably longer periods of time when other apparently similar types of firms operating under apparently similar conditions do not? This led to observations of four separate and distinct pizza populations in Australia and their emergence and development over time. In all four cases, the populations’ development and member survival throughout the industry history was deemed to be related to the constant presence of advertising for pizza generated by an assumed competitor, the local franchised pizza operators. That is, the normal operations of Pizza Hut were assumed to aid the survival of local independent pizza shops. It was as if the local pizza shops were riding on the back of the advertising signal distributed by the franchise firms. That is, it appeared as if increased rates of apparent competition (from the entry of the franchised firms) was actually related to increased survival of the local independent firms, a clear contradiction
from commonly held assumptions in the mainstream organizational studies literature (e.g. Hunt, 2000; Carroll and Hannan, 2000). However, deeper consideration of the broader ecological literature provided access to potential solutions to this paradox.

Observation of firm owners’ stating they benefited from an invisible process that generated increased demand for their products led to the focus of the study upon the possible presence and operation of an unobservable social process, cast as a generative mechanism (i.e. an independent source of convertible energy). A generative mechanism “which if it were to exist and act in the postulated way would account for the phenomenon in question” (Bhaskar, 1979, p. 15). Given that the advertising signal was assumed to transfer demand to local independent pizza firms differentially as a result of spatial and temporal variance, the phenomena under investigation require exploration at different levels of scale (i.e. local town or regional level) and across different time periods.

The next major issue of consideration is what constitutes a population? Adding the dimension of scale to this investigation also throws a (necessary) spotlight on the fragmented nature of the landscape investigated; especially that encountered during the second phase of the study. Whilst it is common for populations to be defined as aggregates of similar (Miner, 1991) or diverse organizational forms (Amburgey et al, 1994), this would be problematic for this study. Put simply, the sessile nature of the firms and their discrete locations remove the possibility of genuine forms of competitive interaction (and/or non-competitive interaction) between the vast majorities of pizza
firms. Therefore, the concept of a metapopulation\(^3\) (or a group of interconnected sub-populations usually of unequal size) is being introduced to enable the investigation of ecological and evolutionary processes related to firm survival to be investigated in manner consistent with approaches in mainstream ecology. The research approach therefore attempts to satisfy Geoffrey Hodgson’s *Principle of Consistency* that argues that “explanations in one domain have to be consistent with explanations in another, despite examination of different properties and deployment of different concepts” (2001, p. 90). Therefore, throughout the research process careful attention has been given to using ecological and evolutionary concepts and methodological processes in ways that are true to there most common and accepted usage. The specific issue of employing metapopulation theory (e.g. Hanski and Gilpin, 1997) will be discussed in chapter 3.

Investigating the possible presence of a generative mechanism that is presumed to have directly influenced firm survival in the pizza industry presents many challenges. A challenge clearly exists to develop a plausible and valid explanation of past events that relate to the operation (and/or suppression) of a generative mechanism that is not directly observable by the researcher. Mahoney (2003) argues that given that the explanation to be developed relates to an outcome that has already occurred (and therefore cannot be tested); the challenge is to develop a set of testable postulates to tease out the presence of an (unobservable) generative mechanism.

\(^3\) Surprisingly, the concept of a metapopulation, so common in ecology appears not to have been used empirically in organizational studies, although its conceptual value has been recently proposed by Knoz and Katz (2000).
A key aspect of this study is the need to determine the presence of a possible energy source. Bennett and George (2003) argue that generative mechanisms are ultimately unobservable social, physical, psychological processes that under specific conditions have the potential to transfer energy, information, or matter to other entities. Therefore, this study is premised on the assumption that “generative mechanism[s] may come to be established as real in the course of the ongoing activity of science” (Bhaskar, 1975). Bhaskar maintains that mechanisms are real and distinct from the patterns of events that they generate; just as events are real and distinct from the experiences in which they are apprehended. Therefore, the focus is on the conditions under which past (causal) events have occurred. Figure 1.2 below illustrates Bhaskar’s notion of a stratified reality. With reference to Figure 1.2, the more precise aim of this research is to investigate the possible presence of a specific generative mechanism (that is located in the domain of the real), proposed to be directly related to the enhanced survival of firms (due to events occurring in the domain of the actual), and to account for contingent conditions associated with its operation and/or suppression (as I investigate the domain of the empirical).

**Figure 1.2 – Bhaskar’s Three Overlapping Domains of Reality**

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Given the specific challenge of attempting to acquire knowledge of the contingent conditions and structures related to a generative mechanism (none of which can be
directly observed in the empirical domain), Bhaskar’s (1975) process of transcendental realism is employed in this study. As such, the research process is aligned to the theoretical practice of retroduction. Retroduction involves the explanation of events in the social world by seeking to discern the structures and mechanisms that are capable of producing them” (Blundell, 2007, p. 55). So the process relates to logically deducing particular historical outcomes or events – rather than testable hypotheses – from a set of assumptions. We seek to find evidence about fundamental structures whose powers act transfactually (i.e. in the domain of the real). Blundell notes that the process seeks neither to use deductive or inductive logic, but rather seeks (via empirical scrutiny) to move from initial description and abstract analysis to the reconstruction of the basic conditions that make possible the mechanism.

1.2 The research opportunity

The research opportunity pursued in this thesis (and stimulated by the discussion presented in chapter 2) may be summarised as, why do some firms, in the face of increasing apparent competition, survive for considerably longer periods of time when other apparently similar types of firms operating under apparently similar conditions do not? An immediate challenge present is this preliminary question is the assumption of similarity. This question could easily be rephrased as, within a specific industry, during times of apparent increases in competition, to what extent is firm survival determined by differences in the type of firm and/or the conditions they experienced? That is, this study attempts to account for the assumed presence of a specific generative mechanism (and the contingent conditions associated with its operation and/or suppression) that is proposed to
afford independent pizza firms in the North Yorkshire\textsuperscript{4} region a survival advantage, despite this generative mechanism having its origin in the apparent increase in competition. Thus the (eventual) extent of the study is a region in North East England, determined continuously for the period of the study (i.e. 1975 to 2004) by the ‘York’ Yellow Pages phone directory. Whereas, the grain of the study relates to the individual units (i.e. the individual towns) sampled. Wiens (1989, p. 387) notes that “extent and grain define the upper and lower limits of resolution of a study; they are analogous to the overall size of a sieve and its mesh size, respectively”.

The research was conducted across five separate settings, utilising very similar time periods no earlier than 1970 or later than 2005. As such, the research was concerned with the survival of independent firms in the developing pizza industry in Tasmania and Geelong (Phase 1) and then in North Yorkshire (Phase 2)\textsuperscript{5}. It is argued that the research opportunity that exists is complex, spanning decades and different continents, and requiring of the researcher an open mind with regards how best to investigate the phenomena of firm survival. As such, the study anticipates making a significant contribution to theory, method and practice.

\textsuperscript{4} See Appendix 1 for a map of the boundaries of the North Yorkshire / East Riding as determined by the York Yellow Pages directory.

\textsuperscript{5} As noted in chapter five, the selection of the North Yorkshire case provides access to a context that is very similar to the Australian context examined in phase one and therefore removes the danger of comparative analysis of the process related to generative mechanisms in an extreme or outlying case (Gerring, 2007).
1.2.1 Anticipated contribution to theory

An understanding of how and why firms’ survive is the focus of much current and past research. During the course of the last 30 years, evolutionary approaches have furthered our understanding of survival factors and the nature of associated social change (e.g. Freeman and Hannan, 1983; Aldrich, 1979; 1999; Gimeno et al, 1997). Whilst change related to a firm/industry is inherently evolutionary, it nevertheless is “affected by contingently related processes or conditions” Sayer (2000, p. 26). At present, there is a dearth of research that accounts for contingently related processes or conditions and their potential relationship to the operation (or otherwise) of firm survival. This is not surprising given the propensity of current research to commonly adopt an extensive (positivistic) approach (Sayer, 1992) seeking to discover regularities across repeated observations that hold the promise of relationships deemed significant.

Determining what makes things happen in specific cases of firm survival so as to identify causal relationships and interpret contextual meaning (i.e. an intensive approach) is not the normal mode of enquiry within this area of research that so frequently relies upon econometric modelling. Given the indispensable fact that the field of entrepreneurship research is beset with the ever present issue of heterogeneity (Davidsson, 2004, p. 56), we must attempt to avoid explanations “that are true on average but not for most individual cases”\(^6\). Therefore, an opportunity to provide a unique contribution to the literature on small firm survival exists. A contribution that builds from the complexity of ever-present (spatial and temporal) heterogeneity and that attempts to logically and coherently explain the presence of a generative mechanism (born from apparent increased competition and)

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\(^6\) My emphasis.
responsible for the transfer of energy from one entity to another. A contribution that accounts for the associated contingent conditions and any such possible survival advantage bestowed upon particular types of firms.

The capacity of the study to contribute to the firm survival literature is enhanced by an approach best described as “methodological pluralism and tolerance” from which the general aim is to “develop concepts that enhance the understanding of social phenomena in natural settings” (Neergaard and Ulhøi, 2007, p. 4). A contribution that considers “not only how to deal with various units of selection but also the question of the reach of selection forces” (Aldrich, 1999, p. 339, my emphasis). Therefore, an inter-disciplinary approach is favoured to increase the capacity of the study to access a broader theoretical base. Inter-disciplinary in the sense that “it contains combinations of knowledge from different disciplines and/or areas of knowledge, that can provide us with a deeper knowledge and new explanatory models, and finally that it often generates new approaches and methods” (Danermark, 2002, p. 56). Thus, this will enable the study to be informed from sources beyond the organizational studies literature which is beset with inconsistencies regarding why the type of firms (chosen for this study) do and don’t survive (Baum and Shipilov, 2006).

1.2.2 Anticipated contribution to method

To pursue this research opportunity, the methodological process of retroduction (Bhaskar, 1979) has been used to provide the researcher with an iterative bridge from which to (cognitively) move between the observed events experienced initially in the first phase,
“discern[ing] the structures and mechanisms that are capable of producing them” (Sayer, 1992, p. 107) and seeking evidence in the second phase that the proposed structures and mechanism/s are in fact real. Thus, the researcher is constantly locked in a battle of investigating inaccessible mechanisms using a logic best described as *disciplined scientific imagination* to advance the research process. Put simply, assumptions developed from observed events in the first phase guide the development of a model (or explanation). Evidence is sought in the second phase of the study to support the assumptions upon which the postulates have been made. The better supported the postulates are, the more confidence is given to an initial model developed through the process of retroduction.

Danermark et al., (2002, p. 96) explains that “retroduction is about advancing from one thing (empirical observations or events) and arriving at something different (a conceptualization of transfactual conditions)”. The process of retroduction typically proceeds through six stages; 1) a description of events from accessing multiple sources of data, 2) the identification of components, dimensions and boundaries of the events studied, 3) the interpretation and redescription of the components through the use of contrasting theoretical frameworks, 4) the identification of the transfactual conditions that make the events possible, 5) an explanation (or estimation) of the explanatory power of the mechanisms identified, and lastly, 6) consideration of how mechanisms manifest themselves in concrete situations. Retroduction provides a means to avoid what Bhaskar (1979) calls an epistemic fallacy through which scientific knowledge is derived only from
what is directly given or observable. Therefore, it is hoped this approach will allow the researcher to access new perspectives of firm survival.

1.2.3 Anticipated contribution to practice

This study seeks to contribute to the development of policy in the area of economic strategy. A perennial problem for small business planning agencies is determining who to assist and how to assist small firms continue to create economic rewards for society. At present the firm survival literature has not contributed a useful framework for policy developers and small firm advisors to use in their day to day operations. It is anticipated that the extent and grain of this study, combined with the inter-disciplinary approach and innovative research methods employed may provide new insights into the development of regional policies relating to firm survival.

1.3 Why study firm survival in the pizza industry?

The pizza industry was chosen as the context for this study for several reasons. First, it is an industry commonly found in local and national economies the world over. Second, it is a simple industry in which unique (firm and industry) processes and practices are potentially very visible (see Rouse and Daellenbach, 1999). Therefore, the industry is amenable to first-hand observation of phenomena that at first glance is complex and embedded in social processes that occur both across an every-changing heterogenous landscape and time. Third, the commencement and development of the industry in Tasmania’s three regional areas, Geelong and North Yorkshire is very similar. Fourth, they are all serviced by regional television networks for localised and national
advertising. Fifth, all five industries were started by local independent firms followed by franchised food chains. Sixth, the physical size of each area is very similar. Seventh, in all proposed study areas, pizza firms commenced as an exotic sub-population entering an established restaurant/fast food industry. Lastly, there is a comprehensive record of all entrants (and therefore exits or survivors) from local telephone directories.

Over the last 25 years the restaurant/fast food sector has been the subject of many studies concerned with firm survival (e.g. Freeman and Hannan, 1983; O’Neil and Duker, 1986; Muller and Inman, 1994; Muller and Woods, 1994; Shriber, Muller and Inman, 1995; Bates, 1995; English, Josiam, Upchurch and Willems, 1996; Muller, 1997; Hjalager, 1999; Kalnins and Mayer, 2004; Parsa, Self, Njite and King, 2005). Whilst the importance of spatial factors is emerging as a specific issue related to firm survival, it still remains an area of focus typically examined using extensive research methodologies that search for regularities rather than attempt to explain the causal relationships between certain objects or events. Therefore, an opportunity exists to employ intensive research methods that aim to discover and explain any relationships that may exist between spatial factors and any source of energy that may influence firm survival. Such an intensive approach also holds the promise of contributing positively to the process of model development rather than testing. Model development is an appropriate approach given recent concern of regarding the current inability of evolutionary theories to adequately explain firm survival (i.e. population change) in the organizational studies domain (Amburgey and Singh, 2002).
1.4 Methodology

Given the primary objective of the study is to investigate the presence of a specific generative mechanism and to account for the contingent conditions associated with its operation and/or suppression, the epistemology of transcendental realism (Bhaskar, 1975) was used. This is inline with the researcher’s ontological position that the world “consists of abstract things that are born of people's minds but exist independently of any one person” (Healy and Perry, 2000, p. 120). Therefore, it is not the researcher’s perceptions that are the explicit focus of the research, but rather their ability to access a reality that lies beyond the researcher’s perceptions (Stake, 1995). This is important given the primary research objective of furthering an account of generative mechanisms that allows for the ascribing of (causal) power or potentiality under a given set of contingent conditions. Especially so when it is accepted that generative mechanisms “may either be dormant for a while or they may be counteracted by opposing mechanisms and lead to no events” (Tsoukas, 1989, p. 553).

As mentioned previously, attention is given to Bhaskar’s (1975) three domains of enquiry. First there is the real domain where generative mechanisms exist independently with a potential to cause events under contingent conditions. Secondly, there is the actual domain where observed events or patterns occur. Lastly, there is the empirical domain where the observer experiences the events. Therefore it is the aim of the researcher “to develop real knowledge of the world by naming and describing the generative mechanisms that result in the events that may be observed” Wollin (1995, p. 80). Importantly, the knowledge while considered real is still held to be fallible. Realism holds
that it may not be possible to observe every permutation relating to the generative mechanism.

Given that the study’s focus is on events that have occurred; the process of retroduction is justified. Retroduction “involves the explanation of events in the social world by seeking to discern the structures and mechanisms capable of producing them” (Blundell, 2007, p. 55). The retroduction methodology chosen is aligned to the nature of the research opportunity and is compatible with the epistemological stance previously stated. This process of creative musing aims to develop a model that would account for the assumed generative mechanism, the events caused (and associated contingent conditions) and other mechanisms or conditions that may counteract or decrease the expected (or potential) influence of the focal mechanism under investigation. Given the complex and seemingly elusive nature of the generative mechanisms under investigation (as discussed in chapter 2) and the fact they defy explanation be any individual actor, a pathway case method (Gerring, 2007) is justified on the basis of the theory/method relationship implied in the ontological and epistemological assumptions discussed thus far. Gerring argues for the use of a pathway case in instances where the research has developed a strong enough hunch as to presume certain causal factors (e.g. a source of energy, firm location and non-competition) are strongly associated with an outcome (e.g. firm survival), to clarify and elucidate the nature of a generative mechanism (i.e. the contingent conditions associated with its operation and/or suppression).
The soundness of the research method is defended in section 4.3 with specific consideration given to specific criteria to judge validity and reliability of qualitative research within the realism paradigm proposed by Healy and Perry (2000). The criteria are: ontological appropriateness, contingent validity, triangulation, methodological trustworthiness, analytic generalization, and construct validity. Also, several additional criteria developed by Gerring (2001) are used to evaluate the nature of concept development (i.e. *Transferred Demand*). The means of data collection and analysis are illustrated in Figure 4.5 (see page 119).

### 1.5 Outline of the thesis

Figure 1.3 (see over page) below provides an illustration of how the thesis chapters relate to the underlying research method that determines the structure and therefore process of this thesis. Bhaskar’s (1975) transcendental realism (as depicted below) provides the means for the researcher’s observations (chapter 2) to be creatively combined in a model building process (chapter 3) from which to 1) postulate plausible generative mechanisms, and then 2) determine if they are real (or imaginary) via empirical scrutiny (chapters 5 and 6).
The next section of this chapter outlines the purpose of and relationship of each chapter vis-à-vis the process of transcendental realism, as illustrated in Figure 1.3 above. Chapter 2 provides an account of the pizza industry in Tasmania and Geelong, from which specific issues emerge as apparent determinants of firm survival. The nature in which the industry gained legitimacy would seem in the first instance, directly related to the arrival and operation of Pizza Hut, a large international franchised pizza chain. However, after the arrival of the second franchised chain, firm survival would seem explainable through consideration of the complex interrelationships occurring between temporal, spatial and competition factors. The researcher’s observations led to the model’s initial development. The initial model is constructed around the presumed presence of an invisible force, a force directly related to the advertising of Pizza Hut that aids small pizza firm survival.
through increasing localized demand for pizza. The advent of the second franchised pizza chain is then presumed to modify the workings of and alter the potential influence of the generative mechanism. Thus, several permutations of environmental energy are present in the operating environment experienced by independent pizza firms. Consideration of such permutations gives rise to the initial consideration of the contingent conditions under which a generative mechanism could be responsible for the consumer demand being transferred from the activities of one entity to another. The chapter concludes by expanding upon the nature of the assumptions, thereby providing focal areas for the specific theoretical development conducted in chapter 3. Specifically, the following tentative observations based on the researcher’s observations and interaction with various literatures support the model’s initial development:

- The environment experienced by firms operating in small cities and towns will not be reducible to a common (or simple) description with regards its properties.
- That if firms do indeed have a capacity to significantly alter the environment, the circumstances related to how and why any such change occurs is explainable.
- Interactions between similar firms interacting within a common industry across small geographic distances may not involve any form of (direct) competitive exchange.
- An invisible force (or energy) arising from the existence of franchised operators exists as a distinct property of the environment that influences independent firm survival.

Chapter 3 aims to theoretical test the strength of the tentative observations associated with the initial musings of the proposed generative mechanism, hereafter also referred to as Transferred Demand. In short, the traditional literature sources related to firm survival contributed little to our understanding of how collective actions and/or generative
mechanisms form part of an explanation of the emergence and development of specific organizational populations. There is little empirical consideration of the tentative assumptions discussed above in the organizational studies literature. Fortunately, further exploration of the logic related to the initial explanation’s assumptions found established conceptual support in the general natural sciences literature (e.g. biology, ecology, etc).

The assumptions explored pertained to the environment experienced by individual firms, the capacity of firms to alter the environs (experienced or otherwise), the nature of competition experienced (or not) by individual firms, and the presence of generative mechanisms that could be responsible for the levels of differential survival outlined in chapter 2.

Of particular interest was the imprecise way in which the terms environment and competition are defined in the general organizational studies literature. Whilst these concepts are well established and used within the normal day-to-day inquiry of social scientists, it would seem that they are not well defined. That is, the uniqueness of the environs experienced and the nature of interaction between firms is not dealt with clearly in the current organizational studies literature in a way that would facilitate exploration of the developed assumptions to the same extent as would be possible (or required) in the natural sciences (e.g. ecology).

Within the broader ecological literature, all such areas of focus have been considered at various levels of scale (not just at different levels of analysis). Consideration of this broader literature provided the development of the theoretical logic thus far developed
(vis-à-vis the operation of Transferred Demand). Chapter 3 concludes with a provisional definition of Transferred Demand.

Chapter 4 outlines the methodology and method used in this study, as previously discussed in section 1.4, and not discussed further in this chapter.

Chapter 5 presents the findings associated with investigating the underlying postulates related to the developed model of Transferred Demand in the North Yorkshire region in the UK. A mixed method approach (Creswell, 2003) enabled the collection of data from historical archives, semi-structured interviews, informal conversations and researcher observations. This approach increased the opportunity to achieve triangulated support for the developed postulates. The first (and vital) postulate that firms located within close proximity of each other may well experience a significantly different environment was investigated from several perspectives. Pianka’s (1973) Community Similarity Index was used to measure the extent to which the towns within the industry differ, and Canonical Discriminate Analysis (CDA) was employed to determine the extent and nature of any such significant differences. Therefore, it was not solely the intention to confirm the presence of unobserved heterogeneity with the data, but also to describe it.

The second assumption that firms have a capacity to alter their environs was examined looking for evidence of autogenic and autogenic engineering behaviour. This approach enabled a direct link to be made between the established ecosystem engineering literature in ecology (Jones et al, 1994) and McKelvey’s (1982) previous development of both
concepts in the earlier organizational studies literature. The third postulate of non-
competition between independent pizza firms and other similar firms (e.g. Chinese) in
their direct proximity was examined using several methods. The Yellow Pages\textsuperscript{7} was used
as a source of information regarding the extent of localized competition occurring
between firms in the industry. The development of an Advertising Efficiency Index\textsuperscript{8}
enabled the net survival data to be adjusted for fluctuations in advertising-spend across
both space and time. This demonstrated the extent to which advertising was (or wasn’t)
related to firm survival. Interviews with firms, conversations with local residents and
observations of firm characteristics across the region also enable the extent of non-
competition to be determined. Lastly, the presence of a powerful and sustained source of
energy assumed to drive the process of \textit{Transferred Demand} was investigated. The
primary focus of this aspect of the investigation was determining the extent to which the
franchised firms used television advertising in a manner similar to that of the Australian
context.

Chapter 6 provides a detailed discussion as to the reality of the proposed model of
\textit{Transferred Demand}, and the conditions associated with its operation. The specific focus
was on explaining the contingent conditions that relate to its operation and/or
suppression. Following on from this discussion, the contribution made to theory, method,
and practice are detailed. First, this study contributes to the firm survival literature by
explaining \textit{why} firms might survive vis-à-vis the contingent conditions they experience

\textsuperscript{7} Other forms of advertising for independent firms (e.g. TV, local papers etc) were investigated but found to be either 1) not appropriate for the context of the industry (i.e. TV) or 2) not frequently used (i.e. local papers). Yellow Pages are an essential form of advertising in the takeaway food/restaurant industry.

\textsuperscript{8} Expressed as $S \times (1 - DF_a)$, where $S$ is the rate of survival generated from SPSS Survival Analysis, and $DF_a$ is the degree and frequency of advertising.
and/or create (intentionally or unintentionally). Further, this study seeks to advance a *theoretical explanation* (derived from empirical research) of the underlying mechanisms at work. To achieve this contribution, a *synthesis* of a broad range of ecological theories was necessary to ensure an encompassing explanation of firm survival (vis-à-vis the empirical setting) was developed.

Second, the research method used increased the focus (and therefore understanding) of the context in which firm survival is occurring. Given the spatial and temporal factors associated with the research opportunity, an increased focus on context is considered essential. This is achieved not only through using multiple levels of analysis, but also using multiple levels of scale. Thus, this study provides an innovative (and unique) contribution to the related methodological literature by being both multi-level and multi-scale. Further, a vital aspect of the retroduction process is the contrasting of theoretical frameworks to gain new insights. This was guided by a desire to develop a ‘consistent’ explanation (Hodgson, 2001) of firm survival by interacting with the broader ecological literature. Importantly, the research findings emerged through the use of several data analysis methods not previously used before in the domain of organizational studies. It is through reconnecting the field to the broader (and more developed) ecological bases that this study contributes most. Rather than merely extending past works, this study breaks new ground, provides new interpretations, and offers a new perspective on what constitutes an evolutionary/ecological approach in the domain of organizational studies.
Third, this study makes a valuable contribution to practice by revealing the nature of coaction occurring within food producer guilds. The concept of *Transferred Demand* resonates with practitioners, thus achieving excellent field utility (Gerring, 2001). By defining the components of *Transferred Demand*, this study has shone light onto the nature of interaction between firms and their selective neighborhood. Interactions that might range from facilitative to competitive to commensal. As such, this study makes a potentially import contribution for policy makers who have previously developed policy without perhaps factoring in the actual level of heterogeneity likely to be found in most industries. The chapter concludes with consideration of a recapping of the inherent limitations herein and contemplates the opportunities for future research into the notion of *Transferred Demand*.

Finally, chapter 7 provides a reflective epilogue to this study. The aim of the chapter is two-fold. First, the reader (unfamiliar with the critical realist process of *retroduction*) is invited at this point to become more informed with the workings of the process of retroduction and their influence upon the structure of this thesis. Secondly, to provide the reader with a reflective summary of the research journey undertaken.
CHAPTER 2
The Tasmanian and Geelong Pizza Industries

2.1 Introduction and overview

This chapter provides an account of the Tasmanian and Geelong pizza markets. The markets are of interest for a number of reasons. They both represent a service and product based industry within which environmental change and firm adaptation can be observed over a 36 year period. The account provided has been formed from interviews with pizza shop owners, researcher observations and the examination of historical documents (i.e. telephone directories and newspaper) from which past behaviours can be observed against a known set of marketplace events. The observations reported flow initially from the Hobart pizza market to the North-West and North-East Tasmanian pizza markets and then to the Geelong pizza market. Thus the process relied upon multiple sources of data derived from both qualitative and quantitative sources across varying temporal and spatial boundaries to identify and comprehend the developmental phases of each market. Thus, a process of analytical generalization (rather than empirical generalization) was used “to clarify the necessary and contingent relationships between structures” (Danermark et al., 2002, p. 105). The chapter concludes with the presentation of a working research proposition that provides the initial focus and direction of the thesis.

2.1.1 Preliminary observations

The following commentary arises from consideration of the fields notes developed from semi-structured interviews with individuals who have participated in the Hobart Pizza
industry from the time of its inception to present day. Press clippings from local newspapers were also used to access past comments from participants. Archival records from the Hobart Yellow Pages were also used to reconstruct the population from inception to 2005.

### 2.2 The Hobart Pizza Market

To gain an appreciation of the events that relate to the emergence, establishment and current position of the above-mentioned pizza markets, initially a detailed examination of the Hobart pizza market was undertaken. The Hobart pizza market traces back to the late 1960s and its subsequent development have been influenced by several external events and the involvement of many Italian entrepreneurs. There have been three distinct and observable epochs. The first period (1970 – 1983) relates to those years when no franchised firms operated alongside local independent firms. The second period (1984 – 1994) relates to those years when local independent firms operated alongside one (1) franchised operator (i.e. Pizza Hut). The third period (1995 – 2005) relates to those years when the local independents operated alongside two (2) or more franchised operators. Across all three periods, significant events occurred that were to prove favourable or unfavourable as the case may be to the participating firms. The pioneering firms, with a few exceptions, were typically descended from Italian families. They introduced not only an alternative food source, but also a passion and flair for food excellence. This pursuit of excellence has clearly motivated and guided the development of the industry during the past 36 years. However, the industry’s development has been patchy, with different patterns of survival observed across both geographical regions and through time. Several
notable key events are illustrated in Figure 2.1 (derived from archival data), and their relationship to the growth of the industry population indicated.

Figure 2.1 – The Hobart Pizza Industry 1970 - 2004

Period Effect legend
A = Opening of Wrest Point Casino
B = Introduction of the 1976 liquor Act
C = Introduction of Pizza Hut & Random Breath Testing
D = The Beginning of Home Delivery
E = The 1990 Recession
F = The Introduction of Conveyor Belt Ovens
G = The Introduction of Pizza Haven
H = The Introduction of the GST

What is observable is that the carrying capacity (i.e. the total amount of firms supported by the environment) of the industry appears to have settled around the mid to high 40s during the late 1990s. In all, over 115 firms have entered the market with currently around 65 disbandings. In general, the pizza market has been transformed from low volumes and high profits in period one, to one that now has high volumes and low
margins. A general social trend towards the consumption of more take-away food, eating out and socialising are directly related to market’s growth, as demonstrated in the following discussion of each distinct period.

2.2.1 Period One – Independent firms only

Just as post-war immigrants helped to establish an Italian restaurant culture in other Australian cities, Hobart was no different. It would appear that the initial knowledge related to producing pizza was imported and/or inherited by first, second and third generation Italians. Initially, three well known eating-houses represented the Pizza industry in Hobart; the Etna, Ramano’s, and the Brazil. The market was just like many other multicultural offerings that increasingly became apart of Australia’s culture. It was not without its own special sense of theatre with the tossing of the dough considered essential to producing the perfect pizza.

Emergent Issue

Strong network ties and collective behaviour underpinning the industry’s development.

An event that had considerable influence on the industry’s growth was the introduction of Australia’s first casino and its placement in Hobart. The Wrest Point Casino benefited from a relaxing of operating hours. As a result, rather than Hobart having the lights turned out at 10pm, those desirous of a beverage continued to party at the casino. Initially, this had the effect of producing two specific new groups of clientele for the pizza industry. Those that had partied until late and those that had served the party until late. Both had similar needs, a place to unwind.
and eat. This proved to be a windfall for the handful of pizza restaurants in Hobart. Other more traditional providers of takeaway and restaurant food were closed and not looking for any additional business. The casino attracted many patrons who dispersed back into Hobart throughout the evening. So a new customer base for pizza restaurants was born and continued to grow, as having a late night pizza became a normal event for more and more people. As will be discussed during the post Pizza Hut – Pre Pizza Haven period, the casino also became an important place for pizza restaurant owners and their staff to meet, relax and share knowledge.

The next event that influenced the industry was the relaxing of hotel trading hours. Coming into effect in August 1977, the Licensing Act of 1976 provided this fledging industry with much impetus. The volume of hungry patrons grew exponentially. Many new pizza restaurants that would remain as Hobart’s favourites were established at this time. These included; The Godfather, Silvano’s Pizza House, Cantina Pizza House, Marti Zucco Pizza, and the Casablanca. Knowledge of how to operate a pizzeria gained from prior employment in pizza restaurants within Tasmania and Victoria assisted all of the owners of these new businesses. All five establishments have employed many eventual pizza restaurant owners. During this period, the demand for late night pizza was extremely high. For example, the owners of the Cantina Pizza House, Robert and Lynne Bernardis, needed to turn off the lights so as to prevent more patrons from interrupting their early morning cleaning of the premises.

The emerging legitimacy of the pizza industry in Hobart was based upon many different styles of operating formats. From the traditional Etna, to Marti Zucco’s modern Pizza
House, to Mario Di Ienno’s takeaway styled Pizza Palace, pizza was already challenging other forms of restaurant cuisine. The availability of physical resources was not difficult. Marti Zucco established a presence in North Hobart amid concerns the area was not suitable for a restaurant. Marti, like many of his fellow pizza restaurant operators, many of whom banded together to form a Pizza Owner’s Association, based his future success on three factors. The first was great food. The pizza had to be made from the best fresh ingredients and cooked to perfection. Without exception, it would seem these pizza pioneers were very passionate about the end product. The second was service. For many, the concept of service varied from table service, to the provision of a sense of theatre (e.g. the tossing of the dough) that drew customers into the production process. As the industry began to emerge as a genuine alternative to other types of restaurants, ambience became the third critical factor. During this early period, many of the pioneers experimented and exhibited very entrepreneurial practices.

For example, Marti Zucco using his previous contacts, knowledge and past experience operating pizza restaurants in Melbourne introduced many new industry practices. These included; new types of dough mixes, the use of higher quality (mozzarella and Ricotta) cheeses, and the sourcing / distribution of fine coffees. Many of these practises were shared amongst the small group of pizzeria owners and subsequently became industry norms. Typically, this knowledge was transferred during weekly socialising activities, such as ten-pin bowling and Sunday nights at the casino. A process of competitive bragging occurred through which an inability to not disclose the ‘secrets’ of

Emergent Issue

Lack of competitive relations within the industry.
personal success provided a continual knowledge spillover. It was common for staff to be part of these get-togethers and this seems to have added to their abilities to leave their employment and start up their own pizza restaurant. The fact that these early pizza restaurants were evenly distributed throughout Hobart’s suburbs and not in direct (locational) competition seems to also explain the ease at which industry specific information was transferred between the pioneers.

2.2.2 Period Two – Independent firms and only one franchised operator

The next major event in the industry was the arrival of the national franchise chain Pizza Hut. Despite the fact Pizza Hut was initially viewed quite negatively, Pizza Hut’s presence appears to have benefited incumbents in three specific ways. Firstly, a substantial increase in the primary demand for pizza. Pizza Hut’s entry introduced an array of advertising activities that by and large promoted the consumption of pizza in general. Secondly, for the more entrepreneurial pioneers, opportunities were abound. The media used by Pizza Hut (e.g. leaflets, TV, radio, etc) was highly visible and relatively easy to imitate. Those with flair grew with the market to establish a stronger presence, importantly, positioned on the basis of their existing orientation towards quality. The last benefit introduced was a by-product of the last two issues. This process of ‘educating the public’ about pizza led to a change in the time that pizza was consumed. Pizza became not solely the domain of the drunken and partied; it also became the concern of those about to party and those thinking about dinner and/or eventually even lunch. Ultimately, the arrival of Pizza Hut increased
the legitimacy of the pizza industry by assisting incumbents and redefining the *how* and *when* of pizza consumption. By altering the hours during which pizza was consumed, many pioneers were encouraged to remain in the industry. The need to be ‘on deck’ when production was peaking, typically after 10pm, had eased. Owners could now work restaurant hours, returning to a more normal life through leaving a manager in charge to finish the late shift.

As illustrated in Figure 2.1, the industry experienced a huge increase in foundings after Pizza Hut’s entry, partly due to increased demand for pizza. However, in 1986 with the industry growing rapidly, the Adelaide based Dial-a-Dino entered the market to introduce the concept of pizza home delivery. This change is credited with increasing turnover threefold in many well-established places. Many local pizza firms responded setting up their own home delivery capabilities. New systems and staffing arrangements needed to be developed to deliver a new form of service that was unique to pizza. Pizza Hut again became the hero of many local pizzerias. Pizza Hut’s television advertisements, while clearly aimed at creating selective demand for their products, increased overall primary demand for the Pizza. It was common for everybody else’s phone to start ringing as soon as Pizza Hut advertisements had been shown; such was the impact of Pizza Hut on primary demand throughout Hobart. What was emerging however was that many consumers were loyal to existing pizza restaurants whose focus on quality was the most influential determinant attribute of their intention to purchase pizza. For many patrons, Pizza Hut merely stimulated their desire for their favorite local pizza.

**Emergent Issue**

Industry legitimacy continually driven by external factors.
A combination of residual support towards local pizzerias and the spread of the industry throughout the suburbs and regional areas were two critical features of this period. The impact of Pizza Hut was highly significant. Not only were their own actions, designed to advance their position, beneficial to incumbents, they also increased the viability of pizzerias operating away from locations with a high concentration of nightclubs and restaurants. As will be discussed in more detail, it would seem a unique process of *Transferred Demand* was occurring through which local pizzerias benefited on the basis of two unrelated factors. First, those pizzerias with a reputation for quality (across the product, service and ambience as compared to Pizza Hut) experienced increased demand immediately following the airing of Pizza Hut’s television advertisements. Secondly, those pizzerias (regardless of quality orientation) located in regional areas or sufficiently away from Pizza Hut’s delivery zones also gained from this apparent process of *Transferred Demand*.

With the size of the population increasing, there were calls from incumbents for market regulation. Marti Zucco feared the market (at this stage 26 firms) was on the verge of saturation. Stephen Konkorzyski (of the Godfather) also felt that each area should have a limited number of pizza shops. Robert Redshaw of Dial-a-Dino felt that with their mainland backing, it was best to let the market decide. The trend towards the dial-up delivery of pizza placed pressure on all firms to adapt, a challenge not always possible. For example, Garabaldi’s, a pioneering restaurant since 1973, struggled to cope with

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**Emergent Issue**

Spatial proximity and market positioning related to survival.
increasing demand for phone orders due to the proprietors lack of acceptable English language skills. Given their reliance on the proprietor for all aspects of their day-to-day operations, they appear to have been an early casualty of the move towards the home delivery. Adding to this new trend was the increasing acceptance of the Random Breath Testing (RBT) laws enacted previously in 1983. Fewer consumers were out and about driving around at night and the whole concept of having pizza delivered was becoming the normal way of acquiring a pizza. By now, additional customer segments had emerged. Taxi drivers not only became loyal customers at many pizza restaurants, but also became a source of recommendation for many of their passengers. Again, reputation was becoming a valuable source of prosperity. Many of the police who manned the random breath testing stations also became regular customers.

During this period of rapid change, the significance of the casino on providing a steady flow of hungry patrons had lessened. Many alternative nightclub venues had emerged in and around the central business district and the competition between existing pizza restaurants was now beginning to intensify. The market was moving towards high volume/lower margins. Many sought to take advantage of technological innovations to increase their advantage. For example, aluminum trays gave way to steel trays; Marti Zucco replaced his traditional deep oven with a self-designed four-deck oven. Others like Robert Bernardis installed computerised systems that enabled the efficient processing of wages and stocktaking. Such systems were a wise investment, enabling the late shift work to be delegated and monitored simultaneously. Software that recognised the callers’ phone number and recalled past preferences and delivery addresses also became popular.
with the larger operators. Many operators were increasingly influenced by the preferences of their customers who sought variations, leading to development of gourmet pizzas and the initial introduction of the woodfired pizza. In 1989, the market for home deliveries was consolidated with Pizza Hut’s acquisition of all of the Dial-a-Dino sites. Without the market power and resources of Pizza Hut, many of the Hobart pioneers used existing friendships to embark upon joint ventures aimed at capturing a larger slice of the growing market.

In 1990, the Australia economy became dominated by the recession *that it had have*, however this downturn in general economic conditions proved a positive for the pizza industry. A combination of not being perceived as a luxury good and the downward pressure on pizza prices (from increasing competition) resulted in pizza apparently being perceived as a normal good with elevated status during hard times. While fewer families could afford to dine out at even moderately expensive restaurants, the price bundling of a family pizza meal complete with assorted accessories (e.g. garlic bread, drinks and dessert) became increasingly popular. The popularity of complete pizza meals occurred despite the introduction of other firms such as McDonalds (1989 onwards), Praties (1991 onwards), and the repositioning of Kentucky Fried Chicken to KFC in 1991, to name a few.

Across the life course of the Hobart industry, perhaps the most contentious innovation was the conveyor belt oven. Introduced during the early 1990s, its impact is viewed
differently by many restaurateurs. For many, the conveyor belt oven introduced increased efficiency. Employee burns were decreased, as were burnt pizzas. They were cheaper to run in comparison to conventional pizza ovens, did not suffer temperature fluctuations from continual monitoring of pizzas, required less kitchen staff and enabled peak times to be better managed. For others though the conveyor pizza oven (initially around $20,000 compared to about $2500-4000 for a traditional oven) introduced potential decreases in effectiveness and quality. Some argued that the simplicity of its operation encouraged the hiring of less skilled labour whose knowledge of the intricacies of dough lead to pizzas being merely toasted and not cooked. It would seem that used skillfully alongside a quality orientation, the conveyor belt oven introduced efficiencies. Alternatively, used as a means to assist in the pursuit of internal efficiency, they represented a potentially ineffective means on making pizza. Regardless of whichever perspective is held, to the smaller operator, many of the potential efficiencies associated with conveyor belt ovens were unattainable due to the initial high investment required to acquire one.

The significance of this innovation was perhaps dependent upon the size of operations. For instance, if there was a separation between staff that served customers who dined in from those who cooked, then the use of less skilled kitchen staff was perhaps limited to pizza quality. Whereas, in smaller operations, it is possible that the use of less skilled staff to cook pizza and serve customers may have put at risk attainment of the three success factors (i.e. great food, great service, & great ambience) identified earlier as critical success factors. As the industry emerged as a direct competitor to others sections of the restaurant market, these three factors became more important, enabling operators to
compete on the basis of quality rather than merely price, an eventual outcome of traditional market competition. The number of operators peaked in 1994, the same year that the next franchise chain operator, Pizza Haven entered the market.

### 2.2.3 Period Three – Independent firms and two or more franchised operators

Pizza Haven, a South Australian based franchise chain entered then market, introducing a ‘fastest gun in the west’ approach to pricing and promoting pizza. Given the mature stage of the industry, it would seem Pizza Haven was more intent on capturing market share than on promoting the industry as a whole. This view of their intentions was commonly held by independent shop owners and was largely based on the perception they were more interested in selling franchises than pizzas. The impact of Pizza Haven and their pricing led strategies appears to have been very significant. During the five years prior to Pizza Haven’s entry (1989 to 1993), the number of pizza firms comprising the population experienced growth of 47%. This despite the effects of the recession, and the introduction of significant competitors (e.g. Praties & McDonalds). During the five years after Pizza Haven’s entry (1995 to 1999), the number of pizza firms comprising the population experienced a decline of 46.5%. This despite the recession having past and increased profitability being locked in by the industry wide adoption of various technologies.
On reflection, it would appear that the industry’s population crashed to a new carrying capacity as a result of the extreme competition introduced by Pizza Haven. For those firms located within the delivery zones of the Pizza Haven stores unable to maintain requisite levels of great food, service and ambience, survival was difficult. However, many other firms in metropolitan, suburban and regional areas survived, seemingly oblivious to the impact Pizza Haven was inflicting on the market. This appears to have occurred for several reasons. First, an inherent propensity to operate upon a baseline of quality (rather than price) had seen many of the more mature firms positioned in the industry towards consumers that valued quality over price. Second, suburban pizzerias positioned on quality, convenience and being friendly tended to be favoured by past consumers. Third, regardless of quality, regional pizzerias were located beyond the delivery zones of the predominantly metropolitan based franchise operators and continued to benefit from the increasing television advertising of all franchise operators.

**Emergent Issue**

There appear to be very different permutations of environment experienced by local pizza firms.

Therefore, it would seem that in metropolitan areas many firms were adapted to a new operating environment through a quality baseline, whilst other firms unable to deliver (or develop in time) these three success factors were susceptible to competing upon a price dependent baseline. This process in the suburbs would appear to have been diluted by other community factors related to past pizzeria-consumer relations. Specifically, regional areas (around 10km to 15km) from the centre of the metropolitan areas remained insulated from increased market selection. In fact they
continue to benefit from the apparent process of *Transferred Demand* with the closure of local regional pizzerias almost a non-event.

It is clear that new entrants have entered the market (located on the metropolitan/suburban border) and succeeded with an approach based on quality. Two new restaurants that provide such evidence are Da Angelo’s and Paesano Pizza. Both are positioned on the highest quality food, encourage BYO and have extensive wine lists to cater to their middle/upper class target markets. Both avoid trying to compete for the price-conscious customer. They rely upon word of mouth to stimulate demand. This is not to say that they aren’t looking for other opportunities within their marketplace. Da Angelo’s has recently begun catering to organisations, thereby maximising the output of the physical assets. It would seem that while pizza has been elevated from a meal fit for the court jester to one fit for royalty, both customer types still exist. While the court jester’s are satisfied by the likes of Pizza Hut, Pizza Haven, and Dominos, it takes an entirely different type of business model to compete within the quality end of the market. As further evidence of this divide, a pizzeria located in the metropolitan area producing gourmet pizza acknowledges all other restaurants and some local pizzerias as direct and/or indirect competition, and the franchise chains as simply not competitors.

The middle ground would appear to be the most dangerous path traveled. If the time period that covers the two years prior and after to Pizza Haven’s entry (1992 to 1996) is examined, it is clear that survival is a tough assignment for new entrants. Of the 23 start-ups during this time period, only 5 have survived to the present. Not surprisingly, these
start-ups have occurred in the regional and suburban areas. The survivors are all linked by previous industry experience, good locations, and a focus on quality. The La Bella Pizza & Pasta perhaps provides a case in point of the degree of knowledge and experience required to establish a new and successful entity in the market. Owned and operated by Mario Di Ienno, La Bella, is situated in suburban Sandy Bay with a sister shop in the Hobart metropolitan area. It sells pizza by the slice and avoids head to head competition with other price-based competitors. Quality is still the driver, as is innovation. Mario was one of the first operators to fully exploit the takeaway nature of the industry when he opened his Pizza Palace in 1977. He was the first local operator to exploit the demand for home delivered pizza, introduced the family sized pizza and has previously opened many outlets throughout southern Tasmania.

The last significant change in the operating environment was the introduction of a Goods and Service Tax (GST) in 2000 by the Australian Federal Government. It is unclear to what degree this caused problems to existing operators given that well-established operators have continued through its introduction until the present. However, there is anecdotal evidence that for those new entrants with poor cash management practices, this new level of accountability has proved problematic given that their competitors (i.e. the franchised operators) contested the market through continual product innovation and competitive pricing strategies. At the other end of the market, the passionate pursuit of quality, service, and ambience remain the success factors. The middle ground still remains for wily operators to traverse; getting it right in the middle is not as easy as it was when the market was booming in the late 70s and 80s. A good example of this
difficulty is the demise of Pizza Hut’s many locations. Initially positioned as both restaurant and take away, the additional competition of other franchise operations has forced Pizza Hut to position its operations as pick up/delivery. Those that have survived the past 30 years in this industry have done so through an ability to exploit their own strengths and through the adoption of different organisational forms and production and marketing processes.

The organisational form of operators has changed during the last 35 years. Figure 2.2, a Simple Taxonomy of Pizza Operators, highlights the changing nature of the structures employed within the market. What is evident from Figure 2.2 (see over page) is that the three period effects have had a profound effect upon the nature of how pizza operators have organized their operations. The organisational form in the early 1970s was that of a restaurant that allowed for customers to pick up pizza, similar to the practices of the traditional Chinese restaurant. However, the advent of the casino and the 1976 Licensing Act combined to create different types of customers. One less discerning, more interested in the availability of food than on the service or ambience. For them, a diner style operation was suitable. Alternatively, others continued to prefer to unwind in a place that focused upon great food, service and ambience.
The second change in organisational form occurred in the mid-1980s after the arrival of Dial-a-Dino and the commencement of home deliveries. This was quite transformational with the activities of the restaurant and diner changed to facilitate delivery and their boundaries were redefined (i.e. their zone of delivery). The third change in organisational form was as a result of the increased price competition introduced by Pizza Haven in 1994 and latter reinforced by Domino’s entry in 1996. Many existing and new entrants chose to compete on the same basis as when the industry first developed, on the basis of quality food, service, and ambience. The delivery of pizza was not continued, but the picking up of pizza has remained. A new organisational form emerged, the shopfront pizza outlet. Operated by the franchise chains, it sought not to seat patrons, but merely to produce pizzas for collection or delivery. In between these two sharply contrasting organisational forms are those business types that contest the middle ground. Some even producing pizzas for other competitors on a contract basis. These remaining restaurants and diner style establishments still cater to both pick-up and delivery.
2.3 Discussion

Several noteworthy issues arise from this discussion of the Hobart pizza market. For the most part, it was through the collective actions of the actors (i.e. independent pizza firms) that the market emerged and continued to grow. Nevertheless, survival appears to have been determined in the most part by external factors, rather than from factors directly related to the actors themselves. A distinct lack of competitive relations between the independent firms was very obvious until such time that home delivery of pizza changed the operating boundaries of most firms. In fact not even the arrival of Pizza Hut could alter this level of cooperative interaction. Post home delivery, the arrival of the Dominos Pizza intensified the eventual (positive and negative) influence the franchised firms had on selection pressures within the market. An influence that was largely determined by the marketplace positioning of the independent firms as a consequence of both temporal and spatial factors. Perhaps of most interest was the observation that the ‘environment’ being observed was highly fragmented and experienced by similar types of independent firms in distinctly different ways. Let us consider these emergent issues in more detail.

The nature of environment selection appears to have not occurred with any sense of uniformity within and across the life course of the industry. The behaviour of Pizza Hut has benefited many firms throughout the industry’s life course (and perhaps eventually a detriment to their own marketplace positioning). It would seem that certain types of (normal) firm level behaviour have altered the nature and process of environmental selection. An observation that goes beyond assuming adaptation by individual firms to observable environmental forces. Or, alternatively assuming that specific firms have
survived due to the nature of the interaction with a changing environment. For example, despite the relatively small geographical nature of the Hobart Pizza market illustrated in Figure 2.3, large differences in selection across the industry have occurred. The three metropolitan areas (i.e. Hobart, Glenorchy and Bellerive) are central and within 10km of each other. In between and around the metropolitan areas are the Suburban areas (i.e. Sandy bay, Newtown, Moonah, Rosetta, Geilston Bay, Lindisfarne, Risdon Vale and Howrah) and beyond these are the regional areas (i.e. New Norfolk, Sorell, Kingston, Huonville and Richmond).

**Figure 2.3 – The Hobart Pizza Market**
In the first instance (i.e. Period 1), environmental selection favoured firms closer to the metropolitan areas, whilst not favoring firms in any of the outlying regional areas. There is nothing unusual about such an outcome, given the lack of awareness surrounding pizza during this time. However the nature of selection across the next two periods did not occur in any predictable manner. After the arrival of Pizza Hut, regional pizzerias were increasingly favoured. The survival of regional pizza shops post the entrance of Pizza Haven is quite obvious. Many operators claimed that the increased advertising used by the franchised firms (including Dominos) acted as a driver of demand into all areas of the Hobart market. It would appear that in attempting to gain increased market share of their contest (metropolitan) niches, the franchised firms actually increased the profitability and therefore survival of regional (and to a lesser degree, suburban) firms. What is apparent is that the nature of selection operating on firms has not occurred evenly across space, despite the relatively small size of the market. Overall, there would appear little evidence related to the success of a particular type of firm (e.g. specialist or generalist); rather it would appear the location of firms has been an indicator of survival.

2.3.1 Pizza Hut’s altruistic behaviour

It would also seem that a form of (unintentional) altruistic behaviour by Pizza Hut has ultimately proved detrimental to their fitness. When Pizza Hut was the lone franchised firm in the market, their presence was seen by the independent firms as positive. Their marketing activities not only increased demand, they were also relatively easy for the more entrepreneurial independents to imitate. However, on face value, it would seem that Pizza Hut’s behaviour painted them into a corner where the organization was neither
sufficiently different nor similar to the independent firms. The arrival of Pizza Haven and then Dominos appears to have resulted in Pizza Hut having to defend a market position that it never really claimed as its own previously. As a consequence, they were neither able to be positioned at the quality end of the market or as the kings of cheap pizza. Several of the Pizza Hut restaurant style stores and take away sites were closed. The presence of Pizza Hut in the Hobart market now is distinctly focused on the take away segment, complete with a new corporate market image. It would seem that despite the dominance of Pizza Hut prior to Pizza Haven’s entrance, the organization had failed to own any specific market segment through its (most likely unintentional) willingness to share the Hobart market with the independents.

2.3.2 Firm behaviour changing the nature of environmental selection

Another very interesting observation has emerged thus far. As would be expected there is evidence of the process of selection and adaptation related to market change. But, perhaps the most interesting feature of the Hobart pizza industry would appear to be the influence upon selective pressure across time and space by individual firms. In the first instance, it would appear that Pizza Hut’s marketing activities have proved beneficial to essentially all incumbent and future entrants. Selection pressures related to increased competition, rapid market change, technological change and economic downturn appear to have been overturned by the ability of Pizza Hut to increase the primary demand for pizza. In the second instance, the arrival of Pizza Haven appears to be associated with an end to Transferred Demand (and therefore reduced selection pressure) for those specialist (price focused) firms operating in the metropolitan niche. In strongly positioning themselves as
the dominant take away pizza player, it would seem that Pizza Haven sharpened consumer perception related to the now apparent quality-price dichotomy.

In doing so, Pizza Haven appears to have partially reversed Pizza Hut’s positive influence within the overall market. After their arrival, the occurrence of Transferred Demand now appears to have been a temporary phenomenon for those specialist (price focussed) metropolitan firms. A weakened or quality dependent benefit for some suburban firms, but still a permanent blanket benefit for all regional operators. Interestingly, for those metropolitan and suburban independents positioned as generalist (quality focussed) providers, the arrival of Pizza Haven and Dominos appears typically not to be associated with any negative outcomes. These operators appear to be favoured by consumer appreciation of quality food, service and ambience.

2.3.3 Searching for the presence of transferred demand

The possible presence of a process of Transfer Demand appears to be the most noticeable issue influencing firm survival of independent firms in the Hobart Pizza industry. Next, the extent of the investigation was widened to determine the degree to which the above noted observations relate specifically to the Hobart area, or in fact relate to pizza as an industry in general. Three additional areas have been examined, they being the North East (Launceston) and North West (Devonport, Burnie, Ulverstone, etc) of Tasmania and the Geelong region in Victoria. All three additional areas share some fundamental similarities with the Hobart area (see Appendix 2).
The plot size of all four areas is approximately 100km by 100km. All four areas experienced the introduction of pizza in the early 1970s, and they are all serviced by regional television networks. However, as illustrated in Appendix 2, all four areas have major differences in topography, and in the size and distribution of their populations. Whereas the Hobart area has three cities around which a population in excess of 200,000 is distributed, each of these areas can be observed to be quite different. In the North East of Tasmania (i.e. Launceston) the population is centred around a much smaller single city. The major population areas are essentially landlocked. In the North West of Tasmania (i.e. Devonport, Burnie, Ulverstone, etc) the landscape is even more fragmented, with the population spread across many very small towns, with the cities typically a third of the size of the Hobart and Launceston cities. The major population areas are all coastal. In comparison, the Geelong area has a larger population with one major city around three times larger than the Hobart and Launceston cities. The Geelong area is also dominated by coastal towns that experience seasonal population variations during the summer months.
As illustrated in Figure 2.4 above, there is a common pattern across all four pizza markets. The advent of the first franchised firm into the market has been followed by an increase in population size until the entry of the second franchised operator. The two larger markets (i.e. Hobart and Geelong) clearly demonstrate a consistent rise in population size post entry of the first franchise entrant. Both the North-East and North-West markets were initially developed as a result of the Hobart market creating awareness and to a lesser degree, a need for pizza in those areas. Across all four markets, independent operators consistently claim that the dynamics of the Hobart market are central to their market’s development. Early Italian pioneers aided by the entry of Pizza Hut’s powerful advertising. A dividing of the marketplace into quality producers and lower cost producers. A shake-out immediately following the entry of the second
franchise entrant as local delivery areas were encroached upon by a significantly more aggressive second franchisor. Independent operators in all four markets acknowledge a regular increase in the demand for their pizza immediately following the airing of the franchise operator’s television commercials. Those positioned at the quality end of the product spectrum have typically reduced the nature of their Yellow Pages advertising as they allow others to create daily demand for the pizza, relying instead on preserving and reinforcing their reputation for quality. Alternatively, those independent operators that choose to be positioned as low margin/high turnover operators, have increased their Yellow Pages advertising in an attempt to compete for market share against the franchised operators.

There would seem no doubt that franchised entrants have increased the legitimacy of the pizza in general. However, it would seem that across all four markets the survival of independent operators is only adversely impacted by the presence of a second franchised entrant when they compete for the same customer type in the same niche. All four markets are observed to be a myriad of fragmented niches that eventually, depending upon the local topography, provide both a safe haven and a highly contested resource space. In Launceston, the city’s size is so small that many of the franchised operators are located in suburban areas as well as metropolitan areas. As a consequence, there is less non-contested space for the independents to occupy. The primary means of avoiding direct competition is to occupy a different resource niche. It is observed that independent restaurant style operators and/or those with a reputation for quality survive regardless of a suburban or metropolitan location due to their indirect competition with the franchised
players. In fact, it was claimed that competition between such operators and other types of restaurants/take away food providers (e.g. Chinese) represents a more serious threat than that provided by the franchise operators; such is the difference in customer type pursued.

In contrast, the topography of the North West Coast ensures a highly fragmented environment in which the pizza population is spread across many smaller unconnected locations. The same co-existence between quality producer and franchised firm is observed, but there is less opportunity for multiple independents in these smaller locations. For example, in Ulverstone, a small town with a stable population of 9,600, the local pizza operator happily co-exists with the Dominos outlet. Initially, for two weeks after Dominos commenced operations, turnover at the Red Grasshopper Pizzeria fell dramatically before returning to previous levels and subsequently increasing from previous normal levels due to an overall increased demand for pizza in the town. It would seem that other food producers (e.g. general takeaway food providers) lost out to Dominos, whereas the Red Grasshopper actually benefited without having to use additional resources to counter advertise.

Other independent pizza operators on the North West Coast in smaller towns appear to have benefited from being located in isolated towns that maintain a population lower than the minimum threshold required by the franchised operators. Under such conditions, it does not appear to matter greatly how the independent firm is positioned. It would seem that once local demand is created for pizza by television advertising it produces
consistent benefits for any type of pizza producer not in the same physical/resource space. A possible exception to this proposition may occur in towns experiencing seasonal population expansion and contraction due to tourist activities. Under these circumstances the survival of independent pizza operations appear to caught up the local dynamics of economies that struggle for a resource that is scarcer for up to half of the year.

There would appear to be evidence that the coastal towns in Geelong may represent locations that despite their isolation, experience a different economy. It is possible that the degree to which the population fluctuates determines the potential likelihood that 1) extreme competition may occur between independent firms who struggle survive in the winter months, and 2) pizza looses its attraction as the dynamics of the population change when the underlying preferences of the local community surface as the transient population shrinks. The degree to which other preferences may be important is difficult to ascertain given that this preliminary investigation has not considered the survival prospects of other food sub-populations (e.g. Chinese or Indian).

2.4 Emergent themes

Across four autonomous markets, an observed process of apparent Demand Transfer beneficial to the survival of independent pizza firms has been observed to occur. The presence of this phenomenon has been proposed to relate to independent pizza operations in 1) a positive way during the early to mid part of the markets’ development, and 2) in a positive/negative way during the latter part of the markets’ development dependent upon the form of resource and/or space usage. The degree of landscape fragmentation that
produces smaller and/or larger populated areas that may remain stable or experience seasonal fluctuations is also suggested to impact on the presence and influence of the proposed process of Transferred Demand. The role of strategic adaptation to environmental change does not appear to be as strong a factor in firm survival as does the propensity towards quality and/or occupation of relatively uncontested market space. That said, it would seem that during the mid period of the industry many pioneers developed a presence in regional locations that have remained viable to this day. However, there has not been evidence found as yet that suggests any specific strategic foresight accompanied such action.

What is of interest is the apparent influence the franchise operators have had on their local environments, both stimulating demand and restricting the availability of resources through direct competition. Across all four markets, the franchised operators have through their day-to-day activities dramatically changed the environment experienced by both themselves and the independent operators. They have also altered their surrounding environment and that of independent operators located beyond their concern. The consequences of such change appear not to be connected to any specific strategic outcome in mind, with the franchise operators seemingly unaware of the largely positive impact they appear to having on independent firms. It would seem that certain types of normal behaviour related to the development of 1) the individual franchiser’s presence and 2) the market, produce different (unintended) survival outcomes for the independent pizza operators. It would seem that an inherent disposition towards quality provides one type of survival buffer as does operating in an isolated landscape within which a
relatively stable population’s consumer preferences are influenced by television advertising.

To summarize, the preliminary process of investigating the development of the Tasmanian and Geelong pizza industries has revealed the presence of significant environmental heterogeneity. Heterogeneity, which is determined (and therefore experienced) by the pizza firms themselves across both time and space. Also, the nature of competition in the industries was as varied as the heterogeneity associated with the operating environments. It would seem that competition within each regional industry ranged from extreme, to weak, to non-existent. In addition to the context of time and space, other factors such as customer type and opening hours have contributed to the nature of competition and overall survival in the industries.

It was consistently observed that the nature of environmental selection has been increasingly influenced, both positively and negatively, by the seemingly normal operating practices of the franchised firms. Practices, that regardless of their intentionality appear to have resulted in the demand for pizza being indiscriminately transferred to independent pizza firms that neither compete directly or within the zone of delivery of the franchised firms. As such, the relationship between firm survival and other obvious factors (e.g. advertising, exposure to competition, and localised economic challenges) appear to be mediated by the presence of an invisible force.
2.5 Conceiving components and boundaries

At this point in time, it would seem perfectly reasonable to suggest that a model of (independent) firm survival in the Tasmanian pizza market must incorporate an invisible force, or generative mechanism, that has the capacity to act in such a way as to alter the normal impact of economic challenges and localised competition. The model’s operation would also need to relate to different environmental conditions that vary considerably within small geographic distances. The capacity of any specific firm/s to alter the environment so as to increase or decrease the magnitude of the invisible force must be accounted for to ensure the model can adequately explain differential survival outcomes.

Let us consider what has emerged from the forgoing discussion.

Firstly, it would seem that a critical factor to emerge from the above discussion is the frequency of non-harmful relations occurring alongside apparent increased independent firm survival. Despite the obvious market power of the franchised operators, under a range of different conditions independent and franchised firms co-exist in a manner that is seemingly benign to the franchised firms, yet beneficial to the many independent firms.

Secondly, despite the relatively small size of the separate markets investigated, a patchwork of different environmental factors was clearly observed. Firms within just a few kilometers of each other experienced very different operating conditions. Clearly, the flow of resources and exposure to competitive forces was not equally distributed across the plots investigated. The consequence of this observation not surprisingly would appear to be related to the differential survival outcomes noted above.
Thirdly, there is little doubt that the franchised firms have changed the environment experienced by independent firms in a variety of positive and negative ways. Put simply, the flow of vital resources (i.e. consumer spending) has been increased by the ongoing development of the various franchised operators. However, in addition, a consequence of this increase in demand has been the increased presence of both competitive and non-competitive relations determined by marketplace positioning and/or location.

Lastly, it would seem obvious that of critical importance to this discussion is the presence of an invisible force. The advertising of the franchised firms was attributed by multiple persons as positively influencing localised demand for pizza. In summary, this chapter has identified several factors believed to comprise the foundational elements of a model of Transferred Demand, defined (in the context of a ‘preliminary’ research proposition) at this point in time as: Transferred demand is a force capable of altering the local environment of independent pizza firms, potentially enhancing survival, and its influence is determined by the interaction between franchised and local independent firms and elements of the environment they share across time and space.

2.6 Researcher reflection – returning memories...

Whilst talking to the early pioneers and past and current operators in the Hobart Pizza Industry, many memories came flooding back, memories that provided a direct appreciation of the events under investigation. Prior to entering academia and eventually commencing this specific research, the
author’s recent past history included significant levels of success and failure starting up and running various service related businesses. Of particular note was the development of a large home-services franchise network throughout Tasmania, Australia. From the author’s experiences with this endeavor much intellectual stimulus was gained.

The home-services franchise network consisted of six different home services (e.g. lawn mowing, carpet cleaning, car detailing etc) and operated across many large and small regional locations in Tasmania. In developing this franchise network, it was not competition between the author’s network and other firms contesting the various markets that determined progress and longevity, it was mutual cooperation and the presence of a strong advertising signal that could cut through the clutter of competing messages for all forms of business operating in any given location. The author’s network along with other high profile businesses that engaged in highly visible advertising grew the primary demand for the respective services. As they did so, the vast majority of service providers across the different markets and locations benefited, put simply, the rising tide lifted all vessels.

The second observation was that the franchisees all interacted with different environments dependent upon a range of factors in their direct area of operation. It was not possible to assume that in managing this network of franchisees that what worked for one would work for another. It was as if the
franchise network was a plain single colour blanket thrown across a landscape that transformed it into a patchwork quilt. To summarise, the author’s past and most recent experience in business provided the means for not assuming competition is necessarily a dominant organising process within our societies and that the space within which business is conducted varies quite considerably. Rather, the author mused that cooperation (be it intentional or unintentional) is an important element of firm survival, as is the presence of a strong advertising signal that emerges from the clutter of multiple signals to positively influence consumer behaviour.

Reconnecting to these memories provided a way of understanding the development of the Hobart Pizza industry, the importance of the franchise operators and the discreet nature of the environment experienced across an essentially fragmented landscape.
CHAPTER 3
Component Identification & Theoretical Synthesis

3.1 Introduction and overview

The initial aims of this chapter are two-fold. Firstly, to identify, interpret and redescribe the components (of the model) identified in chapter 2. Secondly, various theoretical frameworks and/or interpretations will be used provide new insights into the proposed notion of Transferred Demand. Following on from chapter 2, the initial starting point will center on the following (previously discussed) themes, or components; 1) the presence of harmful (i.e. competitive) and non-harmful relations; 2) environmental heterogeneity as it relates to differential resource availability and/or selective pressures; 3) the capacity of firms to alter the environment in both negative and positive ways; 4), the presence of an invisible force from which energy transfer is possible; and 5) consideration of past studies of firm survival in the restaurant and fast food industries. Along the way, several postulates will be developed for the purpose of identifying specific areas of empirical investigation that are aligned to the proposed presence of Transferred Demand.

The chapter concludes with an explanatory note regarding the nature of evolutionary and ecological theories drawn upon throughout this chapter. This section seeks to reconnect the development of the postulates to the ongoing invitation of Aldrich (1999) to add to our understanding an eclectic and inter-disciplinary use of evolutionary theories in the field of organizational studies.
3.1.1 Postulate development

Following the process of theoretical redescription (Danermark et al., 2002), this chapter briefly considers the nature of past work focused upon survival in the restaurants and fast food industry. The chapter concludes with an evaluation and synthesis of the literature reviewed and the presentation of the research proposition to be investigated via the related postulates developed throughout the chapter. This chapter aims to allow the reader to contemplate the nature of the transfactual conditions that could relate to the proposed process of Transferred Demand. In doing so, the proposed limitations of the extant organizational studies literature will be revealed and new theoretical perspectives from other ecological based disciplines will be introduced. The first major limitation within the domain of the organizational studies literature relates to Aldrich’s (1999) framework of relations between organizational populations. It will be argued that this framework does not allow adequate evaluation of harmful and non-harmful relations between firms and/or their representative populations.

3.2 Harmful and non-harmful relations

Chapter two suggests that pizza shops in Tasmania and Geelong experienced an apparent lack of competition throughout much of their industry’s history. Competition was observed as it related to the proximity of similar types of firms attempting to acquire similar resources. Overall, it appeared that few firms throughout the industry’s history

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**Transfactual Conditions**

“Scientifically significant generality does not lie on the face of the world, but in the hidden essence of things” (Bhaskar, 1978, p. 227)

Transfactual conditions refer “to the more or less universal preconditions for an object to be what it is” (Danermark et al., 2002, p. 77)
shared both location and the simultaneous pursuit of similar resources. Thus, it appeared that non-competitive forms in interaction between the firms were common place. This section proceeds with an examination of how the notion of competition and other related concepts is presented in the extant organizational studies literature along with their development elsewhere. Let us first consider the commonly used term *competition*.

Hunt (2000, p. 135) argues that “competition is the struggle among firms for comparative advantage in resources that will yield marketplace positions of competitive advantage for some market segment(s) and, thereby, superior performance”. Like many organisational theorists, his notion of competition is viewed as a selection process. For Metcalf (1998), the issue relates to process or product based competition, and to a lesser degree pricing competition. Frequently in the organisational literature, an ecological perspective is evoked when defining competition. Barnett and Amburgey (1990, p. 80) associate competition with attempts by any entity to survive. They argue that despite larger organisations having potential scale advantages, ultimately, it is a process that occurs when “two parties vie for the sanction of a third”. However, they note the potential disconnect between large organisations and other firms due to environmental heterogeneity. Along these lines, Hannan and Freeman’s (1986) note five factors (i.e. technology, the nature of transaction costs, fixed social networks, association memberships, and institutional constraints) that isolate the availability of vital resources to all firms, thereby providing the means to account for the boundaries that separate organizational forms. For whatever reason, the issue of competing for the same end user
i.e. the customer) is not considered a factor that would differentiate firm environments (vis-à-vis small or large firms).

For McKelvey (1982) competition is a form of stimuli directly connected to the environment that shape voluntary (and non-voluntary) business decisions that impact future survival. Alternatively, it is also suggested that in times of resource abundance little competition (or selection) may occur (Perrow, 1986). This latter view is more inline with the influential work of Hawley’s (1950). Perrow (citing Hawley’s work) notes the importance of social and political forces (rather than economic) that account for functional interdependencies through which symbiotic relationships between community members buffer firms from environmental competition.

However, Hawley was clear in his concern that “the significance of competition is often emphasized to the exclusion of the mutual support like organisms [i.e. firms] render one another” (Hawley, 1950, p. 40). Despite his even handling of competitive and mutualistic relations, it would seem that the original contribution of Hawley (that included specific reference to Kropkin’s (1902) theory of mutual aid) has not been consistently applied in shaping the role and importance of competition the organisational studies literature. It would seem that confusion over the meaning of the term commensalism is at the heart of this problem. To explore this important issue, there is a need to reconnect current important works (e.g. Aldrich, 1999) to Hawley and Hawley to the antecedents of his musings.
3.2.1 Commensalism as a descriptor of competitive relations

At present within the organizational studies literature, commensalism is a descriptor for a range of competitive relations (see Aldrich, 1999). Alternatively, in every other domain of the broader ecological literature (since its original conception) it is clear that the term commensalism has been used to account for one discrete type of relation in which one entity benefits and the other remains unharmed (see Van Beneden, 1869). To understand how such a difference of meaning has occurred and remained in the organizational literature we need to consider the significance of Hawley’s (1950) work on today theorists. There can be no doubt that Hawley’s classic work (i.e. Human Ecology) has been incredibly influential in shaping the development of contemporary evolutionary approaches used in organizational studies research (e.g. Hannan and Freeman, 1977; Pfeffer and Salancik, 1978; Astley, 1985; Carroll, 1985; Barnett and Carroll, 1987; Barnett and Amburgey, 1990; Barnett, 1994; Baum and Singh, 1994; Baum and Mezias, 1992; Aldrich, 1999; Greeve, 2002; Rao, 2002).

However, a legacy carried forward by many researchers influenced by Hawley would seem an inability to account for the actual nature of harmful and non-harmful relations occurring between entities due to Hawley’s particular usage of the term commensalism. For Hawley, “the most elementary and yet salient expression of commensalism in nature is competition” (1950, p. 39). Within the domain of organizational studies the assumption that commensalism is a form of competitive relation continues unchallenged. Despite claims that such usage is appropriate from a sociological perspective (Aldrich, 2007)\(^9\); the

domain of organizational studies was not born from or solely dependent upon sociological perspectives.

Since the term commensalism was first coined by Van Beneden (1869), its use has never been challenged across time and/or domains of enquiry as meaning anything other than an interaction between two entities in which one benefits from the other, but the other is unaffected (e.g. Dana, 1872; Clements, 1907; Alcock, 1911; Thomson, 1917; Borradaile, 1918; Flattely & Walton, 1922; Hegner, 1924; Pearson, 1926; Kudo, 1931; Allee, 1951; Odum, 1959; Reid, 1962; Pennak, 1964; Clarke, 1967; Rees, 1967; Martin, 1983; Blood, 1988; Morris, 1992; Allaby, 2003; Rittner & McCabe, 2004) except briefly by Warming (1909), Braun-Blanquet (1928) and then Fuller and Conrad (1932). Despite the continuous meaning attributed to the term, the field of human ecology was founded upon the opposite and unexplained assumption that commensalism relates to a type of competition. This apparent mistake first occurred when Warming (1909), disagreeing with Van Beneden, but without reason given, determined commensalism to be a type of competitive relation. This interpretation was carried forward by Park and Burges (1921), the pioneers of human ecology in their most seminal work within which they reproduced Warming’s (1909) entire chapter on plant communities containing the reference to commensalism. Warming’s work also appears to have influenced Braun-Blanquet (1928) who also disregarded the established acceptance in the literature of Van Beneden’s definition by also associating commensalism with competition. In relying upon Fuller and Conrad’s (1932) English translation of Braun-Blanquet’s work and the influence of Park

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10 Other (organizational studies) uses of the term (see McKelvey, 1988) also confuse its original usage with other more main stream mutualistic coactions.
and Burgees, Hawley (1950) aligned commensalistic relations with competitive relations. An inconsistency unchallenged (it would seem) until now that denies organizational studies researchers the opportunity to accurately examine (from an ecological perspective) the nature of relations between entities in a manner consistent with mainstream ecological thought.

Given that ecology (and indeed Hawley) places equal importance upon non-harmful relations and harmful relations, it is important that the role of competition is not overstated so as to ensure that the nature of interplay between functionally related populations are not subject to misappropriated assumption (Tokeshi, 1999). Why does this matter? Put simply, the organizational studies literature does not contain a satisfactory framework from which to classify the various non-harmful (positive), harmful (negative) or neutral relationships that may occur between firms. The solution to this problem would seem to be a return to the original formulation of coaction theory proposed by Haskell (1949), which after slight modification by Burkholder (1952) has been used in standard ecological textbooks ever since (e.g. Odum, 1959). From Haskell’s original theory of coaction we can reconnect to the organizational studies literature the original meaning of commensalism and all other forms of coaction. The value of the Haskell’s coaction theory is that we can now account for all forms of coaction in a manner consistent with all forms of ecological theory, which ultimately relate to ‘the study of the interrelationships among organisms [i.e. firms] and between organisms [i.e. firms], and between them and all aspects … of their environment’ (Attiwill and Wilson, 2003, p. 570). This is critical given Haskell’s assertion that the major properties of any
society vary with coaction. Despite clearly acknowledging a difference between Hawley’s definition of commensalism and that of other mainstream ecologists (i.e. Roughgarden, 1983), Aldrich’s (1999) position is problematic given it denies the researcher the means to adopt a true ecological approach to understanding the nature and occurrence of harmful and non-harmful relations. This assertion can be further explained by considering the coaction theory of Haskell.

3.2.2 Revisiting Haskell

In 1949 Edward Haskell published his landmark *A Clarification of Social Science* in which he further developed his theory of coaction. Developed over the previous seven years, his coaction theory sought to separate diversely powerful individuals into the *weak* and the *strong*. It is interesting to note that whilst the term ‘coaction’ features in both Hawley (1950) and Aldrich’s (1999) discussion of commensalism, neither make reference to his work, or that of Burkholder’s (1952) adaptation of Haskell’s classification scheme. Essentially, Haskell observed that weak and strong “classes can only have nine, and only nine, qualitatively different [coaction] relations toward each other” (1949, p. 46). In Figure 3.1 (see over page), the initial classification scheme of Haskell and its adaptation by Burkholder are presented alongside each other.
**Figure 3.1 – Haskell and Burkholder’s Two-Species Population Interactions**

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Species</th>
<th>General Nature of Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2</td>
<td></td>
</tr>
<tr>
<td>1. Neutrality</td>
<td>0 0</td>
<td>Neither population affects the other</td>
</tr>
<tr>
<td>2. Synnecrosis</td>
<td>– –</td>
<td>Direct inhibition of each species by the other</td>
</tr>
<tr>
<td>3. Allotrophy</td>
<td>0 +</td>
<td>Indirect inhibition when common resource is in short supply</td>
</tr>
<tr>
<td>4. Amensalism</td>
<td>– 0</td>
<td>Feeding the other</td>
</tr>
<tr>
<td>5. Parasitism</td>
<td>+ –</td>
<td>Population 1, the parasite, generally smaller than 2, the host</td>
</tr>
<tr>
<td>6. Predation*</td>
<td>– +</td>
<td>Population 1, the predator, generally larger than 2, the prey</td>
</tr>
<tr>
<td>7. Commensalism</td>
<td>+ 0</td>
<td>Population 1 benefits while 2, the host, is not affected</td>
</tr>
<tr>
<td>8. Symbiosis</td>
<td>+ +</td>
<td>Interaction favorable to both (but not obligatory)</td>
</tr>
<tr>
<td>9. Allolimy</td>
<td>0 –</td>
<td>Starving the other</td>
</tr>
</tbody>
</table>

* Haskell's Predation is the same, he is just attributing the role of predator to species 1, not species 2 as Burkholder does

Adapted from: Odom (1971)

Burkholder (1952) expands upon Haskell’s (1949, p. 46) notion of synnecrosis to differentiate between direct interference and when populations encounter a common resource shortage. He also excludes Haskell’s *allotrophy* and *allolimy* whilst drawing a difference between interactions that favor both populations that are *obligatory* or *not obligatory*. However, Burkholder abides by Haskell’s usage and meaning of the term, commensalism, that being “coactions in which the weak benefit and the strong are unaffected”. Haskell notes “the term commensalism, as used in the ecological literature, denotes several coactions. In fact, most of the conventional coaction terms are unrigorously defined, and therefore used more or less ambiguously. This is one of the chief reasons for the long arrest in the development of systematic social and ecological theory”. In the natural sciences, Haskell’s classification scheme and its adaptation by
Burkholder have stood the test of time as the accepted way of accounting for population coactions (e.g. Odum, 1971).

Therefore, interpreting commensalism as related to competitive coactions would clearly seem to distort it usage. For example, Aldrich (1999, p. 302) adopts Hawley’s symbiotic and commensalistic axes to frame his eight possible relations between organizational populations as follows; Commensalism equates to; 1) \([-,-]\) full competition, whereby growth in each population detracts from growth in the other; 2) \([-, 0]\) partial competition, whereby relations are asymmetric, with only one having a negative effect on the other; 3) \([+,-]\) predatory competition, whereby one population expands at the expense of the other; 4) \([0, 0]\) neutrality, whereby the populations have no effect on each other; 5) \([+, 0]\) partial mutualism, whereby relations are asymmetric, with only one population benefiting from the presence of the other; and 6) \([+, +]\) full mutualism, whereby populations in overlapping niches benefit from the presence of the other. In contrast, Symbiosis equates to \([+, +]\) two populations in different niches that benefit from the presence of the other. The eighth population relation Aldrich notes is Dominance, which in the context of Aldrich’s *commensalism*, is somewhat confusingly as an outcome of the interplay between all six of his commensalistic relations and the process of symbiosis as noted above.

Clearly this is not at all similar to how coaction relationships are viewed in the ecological literature. “Whilst some species certainly compete, most species, most of the time, do not” Lawton (2000, p. 45). When commensalism is taken to account for all other coactions other than those that are symbiotic (e.g. Rao, 2002), then the opportunity to
understand and investigate how organizational populations originate and grow is decreased due to an inability to correctly account for relations that are predatorial, parasitic, mutualistic, or based on commensalism. Given that the “elucidation of patterns and processes lies at the heart of community ecology” (Tokeshi, 1999, p. 5), it is important that the role of competition is not overstated so as to ensure that the nature of interplay between functionally related populations are not subject to misappropriated assumption.

Alternatively, the nature of interaction should not be assumed collapsible to observable pairs of species (or entity types) (Tilman, 1987). Bender et al., (1984, p. 11) argues strongly that “in practice, no community ecologist can measure the density of every potentially interacting species in a community, yet once some species are neglected and others are lumped in composite categories, there is a real danger that indirect effects can confuse and confound the interpretation of the results”. This reasoning perhaps explains the difficulty of other researchers to reproduce the finding of past works (e.g. Freeman and Hannan, 1983) where diverse organisational forms have been reduced to two types (i.e. specialists and generalists). This issue of premature aggregation leads to consideration of another concept directly related to the issue of competition, that of resource partitioning. Again issues of consistency of usage vis-à-vis organizational studies and the broader ecological literature emerge.
3.2.2 Resource partitioning – a new or old term?

In developing his resource partitioning theory, Carroll (1984, p. 71) acknowledges organizational ecology as an intellectual descendant of Hawley’s (1950, 1968) human ecology. Not surprisingly, Carroll (1985, p. 1278) relates his notion of resource portioning to Hawley’s description of competitive social process claiming they both “predict a shift from competitive to symbiotic relations between organizational forms”. Carroll’s model is widely interpreted (e.g. Baum and Amburgey, 2002, p. 312) as predicting “that increasing market concentration increases the failure rate of generalists and lowers the failure rate of specialists”. Evidence arising from chapter 2 suggests a process similar to Carroll’s resource portioning but with generalists favored as market concentration occurs. A review of all literature related to the term resource partitioning again reveals an apparent disconnect between its usage in the natural and social sciences.

The term resource partitioning was originally coined by Schoener (1968) and further articulated in his later works, most notably in his 1974 classic paper titled Resource Partitioning in Ecological Communities. Whilst the idea of resource partitioning “is intuitively understood, it is not necessarily straightforward to decide what does and does not qualify as a case of resource partitioning … at one extreme, [resource] partitioning may be defined as any difference in the resource utilization among species” (Tokeshi, 1999, p. 162). It is commonly defined as “the differential use by organisms [i.e. firms] of resources” (Begon, Harper and Townsend, 1996, p. 967). Pianka (1969) produced a major work that identified three specific areas of resource partitioning; habitat, food and time.
Clearly food (i.e. dollars, is the primary resource firms require) and time feature in the observations discussed in chapter 2, as does habitat.

Despite prior reference to specific ecological literature\(^{11}\) (i.e. Hutchinson, 1957) that is heralded as providing “a precise language for the description of resource partitioning” (Schoener, 1974, p. 27), Carroll appears to claim resource partitioning as his concept\(^{12}\). This despite that fact that the concept of resource partitioning (e.g. Schoener, 1968, 1974; Pianka, 1969) had substantially been developed, and at least 58 papers directly related to the coexistence of specialists and generalists (see Wilson and Yoshimura, 1994) already published prior to 1985. The extent to which this existing literature influenced Carroll’s (1985) notion of resource partitioning is difficult to ascertain\(^{13}\).

However, the assumption that competition must drive the process is inconsistent with the development of resource partitioning in the natural sciences where other forms of coaction are taken into account. The above discussion suggests a different trajectory of thinking that has accompanied the development of the concept in the organizational studies literature and the broader ecological literature. Evidence of such potential trajectories is suggested by the observation that many of the most seminal (and therefore influential) papers in the broader ecological literature have seemingly not been cited in

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\(^{11}\) Carroll’s reference to Hutchinson’s (1957) landmark work appears restricted to discussion of the fundamental and realized niche.

\(^{12}\) The concept of resource partitioning in the population/community ecology literature is seemingly always referenced to Carroll’s (1985) paper.

\(^{13}\) Earlier works of Carroll (e.g. 1981) provide reference to works such as Pianka (1978) demonstrating Carroll’s consultation with that particular authors work.
relevant organizational studies journals\textsuperscript{14} (e.g. Watt, 1947; Schoener, 1974; Connell, 1980; Wiens, 1989; Levin, 1992).

It would seem that works that have shaped the interpretation of what is competition and how can it can be measured in the natural sciences have been apparently ignored. As a result, many sub-standard assumptions have been drafted into and retained within the social science’s literature. For example, Hannan and Carroll (1994, p. 30) in acknowledging the difficulty of observing competition within populations, argue that increasing a focus on intra-specific competition simplifies the problem “because one can safely assume that members of the same population have very nearly the same fundamental niche”\textsuperscript{15}. Similar approaches that focus upon vital rates, influenced it would seem by past works (e.g. Clements & Shelford, 1939; Park, 1954; Odum, 1959); reconcile the determination of competition with the outcome of interactions. This contrasts with Milne’s (1961, p. 60) definition that “competition is the endeavour of two (or more) … [entities] … to gain the same particular thing, or to gain the measure each wants from the supply of a thing when that supply is not sufficient for both (or all)”. A complete focus on the type of coaction, on the type of resource usage, time of consumption, specific location, and mechanism of interaction is missing from current notions of competition within the organizational studies literature. The discussion in chapter 2 hints at many types of interaction between pizza firms that require such a focus

\textsuperscript{14} See Appendix 3. The abovementioned articles have not been referenced in any Economics, Organizational Studies or Sociology journals contained within the Web of Science Citation indexes as of the 12/6/2007.

\textsuperscript{15} Whilst they note that this depends of accurate determination of population boundaries, they are vague as to how this should be determined.
to shape a sound explanation. Carroll’s (1985) strict notion of resource partitioning does not lend itself to explaining the preliminary outcomes reported in chapter 2. Further, there are relationships observed that fall neatly under the natural science notion of commensalism, but are difficult to relate to the social science interpretation. Interestingly, Brown and Wilson’s (1956) theory of character displacement has yet to be used to explain how firms adopt or reject particular forms of organization to avoid competition, despite the fact that their pioneering work is used in the field of ecology to further develop the idea of resource partitioning. Alternatively, another concept common within the broader ecological literature, but rarely considered in the organizational studies literature is facilitation. This concept however would seem to offer significant explanatory power to the events discussed in chapter 2.

### 3.2.3 Facilitation – a previously unused term?

Building on from the previous consideration of non-harmful (or positive) relations, the concept of facilitation has the potential to explain the events discussed in chapter two. Only in recent times has serious consideration (e.g. Schoener, 1982) been given to the role of positive coactions in shaping community outcomes. Such interest in the broader ecological literature seems not to have spilled over into the organizational studies literature. However, this is not surprising, given only recently Bruno, Stachowicz and Bertness (2003, p. 119) commented that “it is time to bring ecological theory up to date by including facilitation. This process will not be painless because it will fundamentally change many basic predictions and will

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**Guild**

"a group of species that exploit the same class of environmental resources in a similar way." (Root, 1967, p. 335)
challenge some of our most cherished paradigms. But, ultimately, revising ecological theory will lead to a more accurate and inclusive understanding of natural communities”. Rathcke (1983, p. 306) uses the term “facilitation to connote positive interactions due to resource sharing within a guild”. Rathcke, an ecologist studying plant-pollinator systems, notes that “both plants and pollinators act as resource users as well as resources”, as do restaurants/fast food outlets and consumers. Consistent with Rathcke, within this chapter, pizza shops will be considered to be users. The critical issue would be that overt competitive behaviours associated with attempting to achieve resource ownership do not occur between and within pizza shops located together. Given the discreet nature of environments that the individual firms discussed in chapter 2 experience, the notion that survival outcomes may be explained on the basis of assistance provided to one another may have merit.

Further, such consideration does not ignore the possibility of simultaneously occurring harmful relations. That is, the net effect (i.e. positive coactions > negative coactions) of all coactions can result in facilitation (Holzapfel and Mahall, 1999). Grime (1979) also notes that in ecosystems with low productivity, competition may be less intense, giving rise to the opportunity for facilitative relations to occur. Given the discreet nature of the towns noted in chapter two, such an idea may have merit. Figure 3.2 (below) illustrates an adaptation of Rathcke’s (1983) model to suit the events discussed in chapter 2. The density-visitation curve illustrates visitation by customers as guild density increase. Interactions are proposed to be facilitative to the left of the maximum point on the visitation axis and competitive to the right as guild density increases. Given the lack of
observed competitive relations in the pizza industry, this model of facilitation potentially offers a new means of considering how non-harmful (facilitative) relations may be vital to ensuring the ongoing survival of independent pizza firms. The adaptation of Rathcke’s (1983) model still accommodates a focus on a guild, rather than a single population. This is seen as important given the need to examine the assumed survival advantage of independent pizza firms empirically against other food providers in the broader Takeaway/Restaurant industry. Thus far, this review of the literature suggests the need to adopt the broader conception of non-harmful relations and several postulates emerge from this discussion of harmful and non-harmful relations.

**Figure 3.2 – A Model of Facilitation**

![Figure 3.2 – A Model of Facilitation](image)

### 3.2.4 Summary and postulate development

Whilst successful theories have been developed – for example Porter’s Five Forces, (Porter, 1980; 1985; 1990) – without accurately defining in any detail what is competition
or the environment, the challenge nevertheless remains here to clearly and succinctly describe the nature of harmful and non-harmful relations occurring between firms (and/or their respective populations/guilds). This section has highlighted the lack of adequate frameworks within the organizational studies literature to account for both harmful and non-harmful relations. Alternatively, the broader ecological literature does contain developed theories that might assist our potential understanding of such issues. The following postulates aim to enable a more precise determination of nature of the harmful and non-harmful relations vis-à-vis independent firms operating in the pizza industry.

The use of Haskell’s coaction theory enables us to move beyond assumptions of competition as the predominant organizing process related to firm survival. Coaction theory allows us to consider a range of positive, negative and neutral relations that may occur due to resource partitioning determined by accounting for the type of resources pursued (i.e. customer type), time of consumption (i.e. firm opening hours) and the specific location of each firm. To the extent that non-harmful relations are assumed to occur we may also use the concept of facilitation to explain how non-harmful may best contribute an explanation of firm survival, therefore;

**Postulate 1:** The degree of competition experienced by independent firms in the pizza industry will be explainable by accounting for the type of resource, time of consumption, and specific location vis-à-vis each firm.

A key issue that most determines the presence of facilitation is the willingness of guild members to share the specific resource most required to determine survival. From the
perspective of this study, the pollinator would be the customer. Therefore, identifying differences in the willingness to share customers, rather than own customers should help to determine variances in competitive relations.

Postulate 2: The degree of competition experienced by independent firms in the pizza industry can be inferred by the demonstrated endeavour of individual firms to acquire customers.

Therefore, and following on from the logic of postulate 2;

Postulate 3: A lack of competitive behaviours associated with attempting to achieve resource ownership may indicate the presence of facilitative interactions.

Having accounted for harmful and non-harmful relations as a component within the proposed model of Transferred Demand, the next section is focused on what constitutes environmental heterogeneity vis-à-vis differential resource availability and/or selective pressures. Again, a difficulty in applying current organizational theory leads to the necessity to again explore other domains for theory that can help to shine light on the transfactual conditions that may be associated with the proposed mechanism, Transferred Demand.

3.3 Defining the organizational environment

“Environment is a generic concept under which are subsumed all external forces and factors to which an organism or aggregate of organisms is actually or potentially responsive. The very breadth of the concept restricts its use for the purposes of precise description. In general however, environment refers to the medium in which an organism exists. Environment comprises the raw materials of life and
the conditions, both favorable and unfavorable, that affect the use of those materials” Hawley (1950, pp. 12-13).

Hawley’s (1950) seminal work articulated that the environment is comprised of the ‘raw materials of life’, the conditions that affect the use of such materials, and is directly related to an entity’s location. Given Hawley’s belief that human ecology is the study of the relationships between an organism¹⁶ (and/or a group of organisms) and their environment, his broad definition of what is an environment, is problematic. How can we study such relationships if we operate with such vague definitions? Assumptions that the environment cannot be independent of our own activities because it is but merely an image in the entrepreneur’s mind (Penrose, 1959) also make analysis at the firm/population/community level very difficult. We will begin this section with an overview of how environments have been considered in organizational studies, before considering a conception of environment that is used widely in the broader ecological literature.

3.2.1 Descriptive accounts of everything that effects use

Past and current literature continues to provide credence to environments as being enacted (Weick, 1979), a dispenser of blind selection and/or a source of new variation (Hannan and Freeman, 1977), that may either be related to organizations strongly or weakly (McKelvey, 1982). Given the centrality of the concept of environment (as a form of indiscriminant selection or as a habitat of various benign shades), it is important that its composition and influence is clearly understood by the researcher. The often cited

¹⁶ The word ‘organism’ is used throughout this chapter to refer to any social entity (i.e. a firm) as consistent with Hawley’s (1950) context of human ecology.
paper by Emery and Trist (1965, p. 21) notes that the constant dilemma of organizational researchers is “that the environmental contexts in which organizations exist are themselves changing, at an increasing rate, and towards increasing complexity”. Perhaps this explains the dominance of descriptive accounts of the types of environments firms might intuitively expect to encounter are more common than succinct and workable definitions of what the environment is comprised of. Further complicating the challenge of identifying what organizational environments are has been the ‘scholarly turf fighting’ (Baum and Rowley, 2002) between organisational researchers seeking to determine the hierarchical relationships between task, institutional, technical and general environments.

For example, Meyer and Scott (1983) proposed a typology to distinguish between the environments technical and institutional aspects. Their typology aims to highlight certain production (i.e. technical) and regulatory (i.e. institutional) pressures that the respective firms will encounter. This form of typology provides guidance to managers as to specific prerequisite behaviours required to increase fitness, however for the purposes of this study, we require a more precise explanation in ecological terms what constitutes an environment.

It would appear that the advent of the open systems model of organizational form brought forward a greater need to understand the nature of the environment (Scott, 1987). Viewing firm survival as a function of successfully acquiring resources from beyond organizational boundaries (i.e. the general environment) required a greater appreciation of and maintenance of organizational boundaries. For example, recognizing that no steady state of conditions surround this processes, Emery and Trist (1965) drew on the
past works of Simon (1957), Ashby (1960), Schutzenberger (1954), Selznick (1957), Heyworth (1955) and Chein (1943) to devise a typology of causal textures. Step one was placid and randomized (i.e. mostly bare, but small unchanging resources for consumption in isolated and scattered locations). Step two was placid and clustered (i.e. unchanging resources clustered so that location becomes a survival factor). Step three was disturbed and reactive (i.e. the effectiveness and efficiency of firm strategies vis-à-vis competitors will be of great importance). Step four is turbulent (i.e. survival determined by the ability to manage interconnectedness in the relevant organizational field). Scott notes that other alternative typologies (e.g. Warren, 1967; Aldrich and Whetten, 1981) have been developed that are similar or address other organizational issues (e.g. Longevity).

However, at present the literature still appears no closer to a concrete definition of what is an environment. First year business school students are typically taught about relatively plastic task (or internal) environments (i.e. suppliers, distributors, customers and competitors) and essentially fixed general environments (i.e. political, economic, social/cultural, technological and international factors). Definitions of what is the environment remain basically broken into multiple components, components that may remain within organizational boundaries or be located outside. Many of Hawley’s (1950, p. 17) ideas remain influential, perhaps even his assessment that “any attempt to enumerate the components of the environment involves one in any endless task; for each species [i.e. firm] and type of life responds to a variety of stimuli in a way more or less peculiar to itself”. Despite the ongoing acknowledgement (e.g. Baum and Rowley, 2002, pp. 9-10) that the task environment is a source of various inputs, current attempts to
define the environment appear far from certain on how firms relate to the environment given that the literature accepts that “environments may not only be observed and (mis)interpreted” they may also be enacted by individual firms. This state of affairs within the literature is concerning given the explicit acknowledgement in the natural sciences that it is only those specific factors in the external environment that affect an entity that matter, and therefore are of importance (Brandon, 1996). It would also seem that current notions of what the environment is have placed less focus on the role of the environment as a source of explicit energy (i.e. Transferred Demand?), preferring rather to consider it as a predominately constraining force.

3.2.1.1 The forgotten element: Despite Emery and Trist’s (1965, p. 21) explicate acknowledgement that “any living entity survives by importing into itself certain types of material from its environment”, the issue of environmental energy seems to have lost currency. As one of the most fundamental factors in ecology (Odum, 1971), energy flow is seemingly missing from our current conceptions of environment. The more dominant issue would seem to be environmental constraint, perhaps an indication of the strength of the selection based theories that have developed during the past 30 years (e.g. Hannan and Freeman, 1977; Aldrich, 1979). The recent work of Biologist Brandon (1990) offers a succinct and seemingly obvious way to account for defining what the environment is. With reference to the theory of natural selection, Brandon suggests three specific environmental dimensions through which the process of evolution occurs. First, the external environment typically refers to the sum total of all factors external to the firm that influence its survival. However, this overarching view of the environment does little
to highlight which factors are of most importance to one firm or another. It essentially relates to the factors that all firms in all industries are exposed to (e.g. high interest rates).

Then, Brandon (1990) identifies the second dimension as the *ecological* environment, which refers to a narrowing down of focus. Now we are only concerned with those factors that specifically affect a firm’s ability to contribute to the growth of its industry (e.g. the increasing availability of specific vital resources). The third and last form of environment is the *selective* environment. The selective environment refers to those factors of the external environment that specifically determine the differential fitness of the firm’s interacting elements (i.e. consumer taste). Under such a proposal, the *general* environment can exist independently of a firm, and aspects of it can be altered by a firm, without any positively or negatively impact on the nature of selection. What matters it would seem, is the relationship between the firm and its *selective* environment.

The *selective* environment has no existence independent of the firm/population; it represents the actual *niche* of the firm/population. Therefore, selective environmental heterogeneity is an issue that must be accounted for. Brandon notes that sometimes this heterogeneity can be accounted for due the discrete nature of the environment (i.e. town boundaries) or through the development of selective environmental neighbourhoods around arbitrarily chosen entities. Accepting the presence of environmental heterogeneity (as indicated in chapter 2) requires a consideration of why regional landscapes vary across time and space.
In ecology, one of the most fundamental tenets is an acceptance of ecological succession. Originally championed by Warming (1909) and subsequently developed by Connell and Slatyer (1977), ecological succession relates to the modification of the environment across time and space in ways that influence the survival prospects of new species on a patch by patch basis. The concept has been applied to urban space (see Decker et al., 2000) demonstrating how an underlying ecological process could be at the heart of much environmental heterogeneity. That is, in accepting the presence of selective neighborhoods, we can explain heterogeneity with reference to the process of succession whereby the direction and speed of development from one urban centre to the next could naturally be expected to be out of sync.

To recap, the environment can be broken into different forms, the external, ecological and selective. The ecological environment contains those factors that influence potential growth and the selective environment relates to those factors specifically associated with differential selection. There are likely to be unequal degrees of selection pressure spread across time and space that may relate specifically to discrete spaces or arbitrarily determined selective neighbourhoods within which similar types of firms will not be selected for or against equally.

3.2.2 Summary and postulate development

Brandon’s (1990) conception of the environment as three interrelated dimensions provides a means to account for the sources of energy available to firms (i.e. the ecological environment), the constraints encountered (i.e. the selective environment) and
all manner of other factors external to the firm that may influence its survival (i.e. the external environment). Building upon the previously presented postulates, several more can now be conceived.

Discerning the composition of the environment/s would enable a greater understanding of the guild structure within which pizza firms operate (vis-à-vis sources of available energy and/or threats), therefore allowing the factors that drive survival to be better understood. Indeed, environmental heterogeneity is a central assumption of the proposed model of Transferred Demand, therefore;

**Postulate 4:** Identification of the external, ecological and selective environments relating to specific firms will inform the degree of harmful or non-harmful relations between independent firms in the pizza industry.

An important consequence arising from the above discussion is that it may not be possible to compare survival outcomes meaningfully across the entire extent of the study. This is simply because assumptions of differential survival must relate to firms pertaining to 1) the same population and 2) experiencing the same selective environment. If, as is indicated in chapter 2, firms are apparently experiencing different environs, it is a requirement of the researcher to determine how and to what extent they operate in individuated environments (Brandon, 1990), therefore;

**Postulate 5:** The external environment experienced by one or more independent firms in the pizza industry is an identifiable feature that can be reconciled to their existence.
Likewise, the nature of available growth related inputs is expected to vary from one town/area to another. Clearly, within the proposed model of *Transferred Demand* it is important to know to what extent the local environment has properties that offer growth/survival assistance (i.e. oligotrophic) or tends to be malignant (i.e. eutrophic) (Kangas and Risser, 1979), therefore;

**Postulate 6:** *The ecological environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.*

Following immediately on from the above logic, it should also be possible to identify different forms of firm level behaviour that indicate the presence competitive relations. From chapter 2, it could be also expected that spatial and temporal factors will help to identify the presence of any such factors, therefore;

**Postulate 7:** *The selective environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.*

The proposed model of *Transferred Demand* assumes the presence of complex and changing (harmful and non-harmful) relations between local firms. Where firms are located within proximity to a common general environment, it is still quite likely that the process of resource partitioning and/or facilitation could prevent competitive relations, therefore;
Postulate 8: Whilst a group of independent firms in the pizza industry may share a general environment, each individual firm may experience different ecological and/or selective environments.

Having accounted for harmful and non-harmful relations and environmental heterogeneity as components within the proposed model of Transferred Demand, the next task is to address the issue of how franchised firms might alter the environment in both negative and positive ways. Again, the extant organizational studies literature offers little to inform our understanding of this issue. However, two ecological theories provide much food for thought, providing a new and novel way of contemplating how firms may influence the environment in both positive and negative ways.

3.4 How and when firms might alter their environments

“The key to the mechanism of evolution is the necessity for the evolution of a favourable environment, conjointly with the evolution of any specific type of enduring organisms of great permanence. Any physical object which by its influence deteriorates its environment, commits suicide” (Whitehead, 1926, p. 139).

In chapter 2 it was noted that it appeared that the franchised pizza firms had a significant capacity to alter not just their general environment, but (what we have now described) as their ecological and selective environments (in the spirit of Brandon) of other independent firms in the study area. The extant literature in the domains of sociology, economics and organizational studies appears to offer little empirical evidence on how firms might be able to alter their environments. Rather, it is essentially divided between opinions as to if such a process is possible. A point of difference would appear to relate to the strength apportioned to the environment. The prominent heterodox economist
Hodgson (1993) provides an argument in favor of cooperative firm behaviours altering the environment positively, revisiting the classic works of Whitehead (1926), Lewontin (1978) and Sober (1984). Alternatively, those that hold the view that the environment-firm interaction is mostly based on competitive forces (Hannan and Carroll, 1992) give little hope of individual firms altering their environment significantly.

3.4.1 Lots of opinions, but much less evidence

It would seem that while there are theorists who doubt firms can significantly alter the nature of their environments, others express optimism that firms actually can alter the composition of their environment. However the vagueness and brevity of their opinions provides little insight into how, or under what conditions such processes may proceed. March (1994, p. 43) suggests that an over emphasis on environmental selection (within evolutionary theorizing) ignores “the fact that the environment is not only changing but changing partly as a part of a process of coevolution”. In the same vein, Popper (1972, p. 149) noted that “it is not only the environment that selects and changes us–it is also we who select and change the environment”. A consistent view to Winter (1990, p. 293) who argues that “evolutionary economics emphasizes that organizations do not just adapt to change, they cause it – rapidly through innovation”. Earlier, Winter (1964, p. 240) in the context of discussing firm expansion vis-à-vis other firms, noted that “the environment is changed by the dynamic process itself”. Scott (1987, p. 118) also comments that “environments shape organizations, but organizations also shape environment”. Aldrich

While it is acknowledged that Starbuck (1976), Weick (1979) and others viewed the environment as a creation of the firm’s activities, such (constructivist) explanations are not consistent with the ontological approach used within this study.
(1979) argued that larger firms have the capacity to alter their environments, whereas McKelvey (1982) suggests otherwise.

In an interesting debate regarding the capacity of firms to influence their environment, Rumelt (1979, p. 3) in addressing Aldrich’s (1979) view that only larger firms held such a capacity, contributes a challenging viewpoint. He argues “that an organization’s environment can be altered without altering the environment itself. To change environments one only has to do different things. The change is not simply cognitive, or perceptual, but quite physical”. He goes on to argue that perhaps small firms (due to greater flexibility) have even greater opportunity to do so than larger, less flexible firms. The issue here now seems to be the dividing of the environment into what is within the firm’s boundaries and what is not changeable beyond such boundaries. Whilst not directly said, Rumelt appears to be recognizing that some aspects of the firm’s environment is possible to change, and it is possible that while such aspects may seem minor, to the extent that they influence survival, they may matter most. Such notions would seem reconcilable to Brandon’s (1990) notion of what constitutes the environment.

3.4.2 Niche construction

The recent work of Luksha (2005) and Jones (2006b; 2007a; 2008a) both discuss the process of niche construction (Odling-Smee, Laland and Feldman, 2003) as an evolutionary process through which organisational environments may be altered. The work of Odling-Smee, Laland and Feldman brings to life the previous work of renowned evolutionary biologist Richard Lewontin. Lewontin (1983) sought to refute the assertion
that an organism proposes (a set of predefined) solutions to the problems it encounters in its environment, and that the environment then efficiently rewards or punishes those solutions that prove beneficial or injurious to the organism. For Lewontin, any explanation of the process of adaptive change must cater for the ongoing reciprocal interaction between the organism, its generative mechanism and the environment. He asserted that organisms determine relevance, alter their external world, and transduce physical signals from their external environment\(^{18}\). Essentially, rather than merely being on the receiving end of natural selection, organisms both make and are made as a consequence of interaction with their environment. Importantly Lewontin’s ideas provide the means to apply Brandon’s (1990) concepts of environment to organisational research whilst also accommodating the critical ecological issue of energy flow.

Developing this line of thinking, Odling-Smee, Laland and Feldman (2003, p. 41) again cast doubt on the conventional view that organisms adapt to their environment, but environments do not adapt to their organisms. Their arguments originate from Darwin’s (1881) observations that worms not only not only change the soil they inhabit, but also ensure a process of ecological (as well as genetic) inheritance that consequently benefits the future survival of the niche constructing worms as well as their eventual off-spring. It would appear that this obvious (and ubiquitous) process has not been a feature of empirical organizational studies. Importantly, niche construction theory highlights a generative mechanism through which empirical explanations of how firms might alter their environments may be crafted. Odling-Smee, Laland and Feldman define niche

\(^{18}\) Lewontin (1983) uses the term ‘general environment’ in a holistic way that would also incorporate Brandon’s (1990) notions of general, ecological, and selective environments.
construction as “when an organism modifies the feature-factor relationship between itself and its environment by actively changing one or more of the factors of its environment, either by physically perturbing factors at its current location in time and space, or by relocating to a different space-time address, thereby exposing itself to different factors”. Figure 3.3 (below) illustrates the difference between the standard evolutionary theory models and that of the extended theory of evolution.

**Figure 3.3 – The Process of Niche Construction**

![Figure 3.3](http://www.st-andrews.ac.uk/~seal/niche/nicheconstruction3.html)

Importation of such ideas in the social domain could reasonably be explained as follows. From the standard evolutionary perspective (a), populations of firms transmit information (routines, cultures and organizational structures) from one generation to the next, under the direction of natural selection. However, from the niche-construction perspective (b), the firms modify their local environments (i.e. E) through niche construction. Each generation inherits both information and a legacy of modified selection pressures (i.e. ecological inheritance) from incumbent firms.
3.4.3 Ecosystem engineering

This line of thought is similar in many respects to the ecosystem engineering concept of Jones, Lawton and Shachak (1994) who define their concept as “organisms that directly or indirectly control the availability of resources to other organisms by causing physical state changes in biotic or abiotic materials”. They differentiate between allogenic ecosystem engineers and autogenic ecosystem engineers, the same key terminology used by McKelvey (1982) within his evolutionary approach. “Autogenic physical engineers directly transform the environment via endogenous processes (e.g. tree growth, development) that alter the structure of the engineer, and the engineer remains as part of the engineered environment…in contrast, allogenic engineers change the environment by transforming living or nonliving materials from one physical state to another (e.g. a beaver’s dam), and the engineer is not necessarily part of the permanent physical ecosystem structure”. They also note that it is possible for an organism to simultaneously be both an autogenic and allogenic engineer.

It would seem a main difference in the focus of the two works is the formers explicit focus on ecological inheritance and the latter’s categorization of different types of engineers. From the perspective of the social sciences, it would appear that the two approaches are compatible, and have much to offer with regards developing and explanation of how firms may alter their environments. It would also appear that the activities of Pizza Hut might be associated with the proposed process of Transferred Demand, and could be potentially considered allogenic/niche construction. The fact that
the preliminary case outcomes (presented in chapter 2) relate to a single sub-population (i.e. pizza) prevent comment as to how the behaviours of Pizza Hut may have benefited (or harmed\textsuperscript{19}) other restaurant/fast food providers. Alternatively, Dominos increased local presence in major cities would seem to represent a case of autogenic engineering with their increased physical presence casting a large selection shadow upon those competing directly with the Dominos style of operation (e.g. low cost producer). Niche construction theory would seem to hold much potential to assist explanation of the coaction occurring between franchised and independent pizza firms given that the theory holds that “an organism [i.e. firm] may act in ways that benefit another organism, if the second organism’s niche-constructs in ways that increment the first organism’s relative fitness” Odling-Smee, Laland and Feldman (2003, p. 298).

Incorporating such new ‘old’ ideas within organisational research presents a serious challenge. Geoffrey Hodgson (2001, p. 90) argues “explanations in one domain have to be consistent with explanations in another, despite examination of different properties and deployment of different concepts”. Hodgson’s argues that attention must be paid to the ‘principle of consistency’. Interestingly (and perhaps ironically), that the evolutionary concepts noted thus far have not previously been applied where potentially useful suggests a potential inconsistency that may impact upon the development of sound (and useful) evolutionary theories in the organizational studies literature. To recap, there are differing views within the current literature as to whether or not firms are capable of altering their environments. Such difference in opinion is not assisted by the paucity of

\textsuperscript{19} Jones, Lawton and Shachak (1997) also outline the potential negative implications of ecosystem engineering.
empirical studies addressing this fundamental issue. The recent development of niche construction and ecosystem engineering theories offer a new window through which to consider how and under what conditions firms may alter their environments, and those of other firms. Several postulates emerge from this section of the literature review.

3.4.4 Summary and postulate development

Drafting in the niche construction and ecosystem engineering theories from biology and ecology provide the means to address the possible causal mechanism that alter the transfactual conditions associated with the proposed model of Transferred Demand. Importantly, we can consider the specific impact of an entity upon the environment (i.e. niche construction) and also how such influence is related to allogenic and autogenic forms of engineering (i.e. ecosystem engineering), therefore;

**Postulate 9:** The natural development of franchised pizza firms in the pizza industry will significantly alter the nature of the ecological and selective environments experienced by other associated firms.

Evidence of niche construction and/or ecosystem engineering should be reconcilable to the differential survival outcomes experienced by local independent pizza firms (relative to all other similar types of firms), therefore;

**Postulate 10:** Evidence of niche construction and/or ecosystem engineering in the pizza industry should highlight which specific firms have (and have not) benefited due to change in their respective ecological and selective environments.
A basic premise of niche construction and/or ecosystem engineering is that of ecological inheritance. Evidence of either process should highlight the presence of a favourable environment within which certain firms can commence operations favourable vis-à-vis other similar firms, therefore;

**Postulate 11:** Evidence of niche construction and/or ecosystem engineering in the pizza industry may indicate the possibility that certain populations and/or firms should inherit a survival advantage relative to other populations and/or firms.

Having accounted for harmful and non-harmful relations, environmental heterogeneity and specific mechanism of environmental influence as components within the proposed model of *Transferred Demand*, the next section considers the presence of an invisible force from which energy transfer is possible.

### 3.5 Generative Mechanisms

“Generative mechanisms are (usually) unobservable processes, that realists believe are nevertheless real, at higher or lower levels of analysis that cause behavior at a given level of analysis and, thus, are the bases of scientific explanation” (McKelvey, 2002, p. 891).

McKelvey’s definition highlights the nature of the ontological shadow cast over the concept of a *generative mechanism*. The inference drawn from chapter 2 is that a force, independent of the actions of most independent pizza firms observed was acting to favor certain pizza firms under particular conditions. Such inference is consistent with the nature of the research method to be explained in chapter 4. Bennett and George (2003) argue that generative mechanisms are ultimately unobservable social, physical,
psychological processes that under specific conditions have the potential to transfer energy, information, or matter to other entities. A major challenge in accepting the idea of what are generative mechanisms is accepting that while they may shape certain outcomes, they may also be shaped by other outcomes. Either way, the “exact course of events will depend on the relative strength of the different mechanisms at work” (Elster, 1998, pp. 60-61). Therefore, it is considered paramount that specific research methods are employed to gain a careful appreciation of temporal and contextual factors that together form contingent (or transfactual) conditions under which generative mechanisms activate their tendencies to influence contingently related objects (Tsoukas, 1989).

Connecting the notion of Transferred Demand to the concept of a generative mechanism requires “the construction of an explanation for . . . some identified phenomenon [and] will involve the building of a model, utilizing such cognitive materials and operating under the control of something like a logic of analogy and metaphor, of a mechanism, which if it were to exist and act in the postulated way would account for the phenomenon in question” (Bhaskar, 1979, p. 15). Bhaskar (1975, p. 56) also argues that such proposed mechanisms may indeed become established as real in the ongoing activity of science. Importantly, from the perspective of critical realism, “generative mechanisms of nature must exist and act independently of the conditions that allow men access to them”. Several postulates emerge from this section of the literature review.
3.5.1 Summary and postulate development

The literature supports the notion that a mechanism can be assumed to exist through which energy transfer is plausible. The challenge for the researcher is to identify the specific conditions that relate to the presence (or operation) of the assumed mechanism. In the case of this study, it is assumed that the advertising of the franchised firms is directly related to the presence of any such energy transfer, therefore;

**Postulate 12:** *In pizza markets featuring both franchised and independent firms, an invisible force capable of altering both selective and ecological environments is plausible and its presence would be determined by the interaction of franchised and independent pizza firms occurring across time and space.*

Further, there should be no such evidence of an invisible force prior to the entry of franchised pizza into the markets under investigation, therefore;

**Postulate 13:** *The presence of an invisible force will have identifiable transfactual conditions that relate to its tendencies to positively influence independent pizza firm survival.*

However, the assumed presence of environmental heterogeneity would be expected to interfere with (or suppress) the operation of any such invisible force across time and space, therefore;

**Postulate 14:** *The contingent conditions related to the tendencies of any such invisible force are related to and explainable by an understanding the variance occurring in the selective and ecological environments experienced by individual pizza firms.*
Having accounted for harmful and non-harmful relations, environmental heterogeneity, specific mechanism of environmental influence, and the possibility of a generative mechanism as components of the proposed model of *Transferred Demand*, the next and final section of this literature review considers the nature of past works focused upon firm survival in the restaurant and fast food industry.

### 3.6 Restaurant and Fast Food Firm Survival

Over the last 25 years there have been many studies examining firm survival within the restaurant and fast food industries. One of the first was Freeman and Hannan’s (1983) investigation of specialist/generalist restaurant survival across 18 California cities. Their study challenged the previously held assumption that generalist firms would be favored during times of environmental instability. However, the population ecology approach employed by Freeman and Hannan has been the subject of much academic debate (see Young, 1988; Zucker, 1989) as to the validity of the approach developed and employed. A specific limitation of the study was the assumption that environmental variation could be related solely to seasonality.

An investigation by O’Neil and Duker (1986) failed to find a positive relationship between marketing expenditure and firm survival. Instead, they found that the efficient use of marketing expenditure was more important than the total amount spent vis-à-vis survival. Inspired in part by Freeman and Hannan’s population ecology approach, Muller and Inman (1994) devised a new approach to restaurant management that incorporated spatial analysis. Differentiating between restaurants located in hamlets, villages, towns,
cities and a metropolis they argued that distance and transportation are key factors related to restaurant survival. A related study by Shriber, Muller and Inman (1995) confirmed the importance of accounting for spatial variation when predicting restaurant performance outcomes. Indeed, rather than advocating the collapsing of various restaurant forms into two types (i.e. specialists and generalists), Muller and Woods (1994) propose a typology of restaurant forms (i.e. quick service, moderate upscale, upscale, and business dining), each with a distinctive set of related competencies required to achieve optimal performance.

The growing impact of franchised entrants in the restaurant and fast food industry was examined by Bates (1995). Across a relatively short time span (1984 to 1987), Bates found that despite higher levels of turnover, franchised firms during the study period were less profitable than independent firms due to higher upfront establishment costs and the increased likelihood of competing in overcrowded niches. English, Josiam, Upchurch and Willems (1996) drawing inspiration from Michael Porter’s strategic planning model also found an inverse relationship between the initial start-up investment and eventual success. However, they found that franchised restaurants held a survival advantage over independent restaurants. During this period, Muller (1997) noted the (somewhat obvious) food-service price distributions between the various types of firms operating in the restaurant and fast food industry, highlighting the lack of direct competition between many marketplace offerings.

The survival of Danish restaurants was also explored by Hjalager (1999) employing theoretical perspectives from organizational ecology (see Baum, 1996). Like Muller and
Inman (1994) before her, she placed specific emphasis upon spatial variation, accounting for metropolitan areas, large cities, towns, villages and rural areas. Her findings suggested lower levels of rural survival related to increased levels of rapid change in a relatively homogenous regional business environment. Recently, Kalnins and Mayer (2004) investigated the survival of pizza restaurants in Texas. They found that local knowledge (gained from congenital experience) was more related to firm survival than was distantly gained experience. Their findings argue for the increased consideration of the importance of local knowledge at lower levels of analysis (i.e. towns and villages). Finally, Parsa, Self, Njite and King (2005) used a mixed-method approach developed a model of restaurant viability from their study’s findings. The model is derived from their identification of 12 elements of success and 21 elements of failure. Importantly, they could not pin point restaurant success or failure to any specific factor/s.

3.6.1 Summary and postulate development

Overall, this review of the literature related to firm survival in the restaurant and fast food industry has revealed some emerging underlying trends (e.g. the incorporation of spatial analysis, different theoretical perspectives and the use of various research method), but has failed to identify any common specific (or dominant) factors related to firm survival. Much of the past findings reported in the studies noted above are drawn from the identification of correlations of various independent variables and survival outcome as a dependent variable. This study differs in that the focus is not upon the relationship between any predetermined number of independent variables and firm survival as a dependent variable. The focus is upon a generative mechanism (i.e. the invisible force)
that alters the probability of independent firm survival accounting for spatial and temporal heterogeneity, therefore;

**Postulate 15:** *The degree to which an invisible force capable of influencing independent firm survival the pizza industry will be directly related to (or explainable by an understanding of) the selective and ecological environments experienced by individual firms.*

Accordingly, evidence of resource partitioning and/or facilitation as a response by independent firms should form a central element of any explanation of *Transferred Demand*, therefore;

**Postulate 16:** *Differential independent firm survival in the pizza industry will therefore be related to differences observed in firm type and location.*

Any alternative explanation should be comparable to existing explanations for comparison. The relationship between specialists and generalists is well accepted within the literature (vis-à-vis survival outcomes) and therefore serves as an appropriate accepted explanation against which to compare the findings of this study, therefore;

**Postulate 17:** *Collapsing firms into specialists and generalists will not give rise to as satisfactory explanation of the differential survival outcomes of similar types of firms operating in the restaurant and fast food guild in the North Yorkshire / East Riding region as compared to that developed to explain the assumed presence of Transferred Demand.*
3.8 Summary

Throughout this chapter the components of the proposed model of *Transferred Demand* have been discussed vis-à-vis the organizational studies literature and the broader ecological literature. This chapter started with a focus upon the nature and type of harmful and non-harmful relations experienced by firms. This review has highlighted the inconsistencies between the organizational studies literature and the broader ecological literature in relation to what are regarded as competitive interaction, the extent to which resources may be shared, and proposed the likely existence of the facilitative processes. Three specific areas of focus have been suggested through which all forms of coactions may be considered. Those being, the type of resource pursued, the time of consumption, and the location of consumption.

Then, the need to accurately define the specific environment of individual firms and/or groups of firms experience was considered. To this end, Brandon’s (1996) conception of the environment as three interrelated dimensions has been suggested as a workable scheme. Next, an attempt was made to move beyond mere assumptions that firms could (or couldn’t) directly alter the environment they (or others) experience. Next was the contentious issue of *if* and *how* firms might be able to significantly influence their environment.

Moving beyond theoretical speculation, the concepts of niche construction and ecosystem engineering were offered as plausible processes through which explanation of how firms might alter their environment was possible. Two specific forms of engineering (i.e.
autogenic and allogenic) were discussed along with the intuitive notion that different cohorts may inherit a better ecological environment from previous cohorts, as a direct result of the past behaviours of earlier cohorts. Importantly, focusing upon the possibility of niche construction and ecosystem engineering provides the means to observe different environmental conditions, some of which may align to the speculated process of *Transferred Demand*.

The issue of generative mechanisms was briefly discussed to highlight the possible place of *Transferred Demand* within the study. The inference made was that *Transferred Demand* would be neither a dependent nor independent variable, but rather a force acting to alter the relationship between any such variables. Lastly, the literature related to restaurant and fast food firm survival across the past 25 years was reviewed. The increasing importance of accommodating spatial heterogeneity was identified as was the importance of employing research methods capable of discovering and analyzing any such spatial heterogeneity.

### 3.8.1 Research proposition

Throughout the review, 17 postulates emerged. As will be explained in chapter four, the proposed generative mechanism (i.e. *Transferred Demand*) is argued to be an unobservable entity, hence the need to search for empirical support (or otherwise) for the related postulates. The degree to which the postulates are supported will provide confidence (or otherwise) for the following research proposition: *Transferred Demand is a force capable of altering both selective and ecological environments, thereby*
enhancing survival, and its influence is determined by the interaction between franchised and independent pizza firms and elements of the general environment they share across time and space.

3.7.1 An explanatory note

Throughout this chapter, a range of essentially evolutionary and ecological theories have been used to consider the events discussed in chapter 2 vis-à-vis the presence of a generative mechanism called *Transferred Demand*. This comment serves as a note to the reader to demonstrate the researcher’s overall understanding of such specific (and broad) literature; that is, the nature and scope of evolutionary theories in organizational studies; their genesis, development, and contemporary application. Aldrich (1999, p. 1) notes both the eclectic and inter-disciplinary nature of evolutionary theories in the field of organizational studies, observing that “evolutionary models encompass many levels and units of analysis”. From the researcher’s perspective, my engagement with this literature is demonstrated in Figure 3.4 (see over page). An unavoidable challenge of engaging with this specific literature, is acknowledging that the contemporary works so thoroughly reviewed by Aldrich (1999) and Baum (1996) and Baum and Shipilov (2006), are the direct artifacts of a long running ‘evolutionary play’ being played out on the stage of a scholarly ‘ecological theatre’.
The above selected genealogy represents the researcher’s understanding and appreciation of this evolutionary play. The founding works of Lamarck (1809), Darwin (1859) and Kropotkin (1902) are cast as the inspiration to many an actor. The left hand column reveals the many new story lines introduced into plays that have gained irrefutable status in the broader ecological literature. In the main body of Figure 3.4 are listed many of the
most recognised organizational studies ‘performers’, along with an indication of their reliance upon the works of the suggested founders of this play. Of the modern day performers, only the various works of Hodgson (e.g. 1999) reflect an appreciation and command of all three founders. Most other contemporary performers lean heavily towards a Darwinian view, ascribing the environment more power than individual firms. Interestingly, despite the antecedents of human ecology (e.g. Durkheim, 1938 and Park, 1936) demonstrating an intimate appreciation and use of all three founders works; it is an appreciation that has seemingly disappeared over recent years (e.g. Aldrich, 1979; 1999, Hannan and Freeman, 1983 and Carroll, 1985).

From this perspective, Aldrich’s (1999) recent invitation to scholars is merely a call for more scenes to be added, scenes that may; 1) celebrate past performances; 2) add new interpretations to past performances; or 3), provide new energy to current and future performances. In the true spirit of Veblen (1925); a play that has neither a beginning nor an end. Therefore, the postulates related to the proposed model of Transferred Demand that have been developed throughout this chapter merely seek to audition in this long running and never-ending play. It is however understood that the researcher enters onto the stage mid-performance to neither contribute a final scene or to repeat past scenes faithfully.

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20 That is, they assume (to varying degrees that) firms are sorted by the environment on the basis of some degree of fit by the process of natural selection. However, typically, it is more likely that the properties of the environment (i.e. the nature of consumer taste and availability of resources, etc) rather than the properties of the firms (i.e. their strategies and capabilities etc) that would most likely explain their differential success (see Brandon, 1990).

21 Aldrich (1999, p. 346) notes that “these are exciting times for people interested in applying evolutionary theory, rather than becoming caught up in paradigm wars …. evolutionary thinking represents an ecumenical approach that holds great promise for scientific progress in organizational studies”.

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3.8 Researcher reflection – wondering free…

Throughout my engagement with the various literatures I have sought to understand, I have not assumed that anyone discipline has ownership of knowledge. I feel that I have taken on the role of ‘matchmaker’, actively seeking to inform one contributor of the qualities and opportunities associated with another (seemingly) unknown contributor. I have enjoyed this role as it has introduced me to inconsistencies (between the contributors) that have made me sit back and wonder more thoroughly than if I was to simply take one of the contributors on face value.

I have become genuinely excited about the prospect of developing new combinations of knowledge through which I might gain access to a more complete explanation of firm survival. Perhaps the greatest challenge of my journey thus far is the need to reconcile the various ontological perspectives I have encountered engaging with such diverse literature. This engagement I believe has helped me to clarify my understanding of my own personal methodological beliefs and preferences. Let me now share with you how these methodological beliefs and preferences have been incorporated into this study.
4.1 Introduction and overview

This chapter addresses the methodology used within this study and the research method used to facilitate it. As discussed previously, the main purpose of the study is to confirm or disconfirm the presence of an invisible force assumed to provide a survival advantage to independent local pizza firms. Importantly, this study does not aim to test theory or directly extend past theory. Given the lack of fit between the researcher’s observations (i.e. chapter 2) and the theoretical solutions (i.e. chapter 3) available to explain these observations (from within the organizational studies literature), this study seeks to propose a new model of firm survival for confirmation or disconfirmation. Therefore, a specific epistemology is required through which the researcher’s observations and knowledge of the world can be used to develop a new explanation of firm survival while at the same time ensuring such cognitive contribution can be empirically confirmed or disconfirmed.

At present, few studies of firm survival attempt to account for generative mechanisms that might be responsible for firm survival outcomes, let alone account for the contingent conditions (Tsoukas, 1989) under which such mechanisms might operate and/or be suppressed. Given the explicit aims of this study an epistemology that emphasises theory development is required (Bhaskar, 1978; Wollin, 1995). This chapter will proceed with a
brief overview of the main scientific research paradigms and justification as to the choice of paradigm chosen for this study.

**Figure 4.1 Four Categories of Scientific Paradigms and their Elements**

<table>
<thead>
<tr>
<th>Element</th>
<th>Positivism</th>
<th>Critical Theory</th>
<th>Constructivism</th>
<th>Realism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td>Reality is real and apprehensible</td>
<td>&quot;Virtual&quot; reality shaped by social, economic, ethnic, political, cultural, and gender values, crystallised over time</td>
<td>Multiple local and specific &quot;constructed&quot; realities</td>
<td>Reality is &quot;real&quot; but only imperfectly and probabilistically apprehensible</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td><strong>Objectivist:</strong> findings true</td>
<td><strong>Subjectivist:</strong> value mediated findings</td>
<td><strong>Subjectivist:</strong> created findings</td>
<td><strong>Modified Objectivist:</strong> findings probably true</td>
</tr>
<tr>
<td><strong>Common Methodologies</strong></td>
<td>Experiments and Surveys: Verification of hypotheses, chiefly quantitative methods</td>
<td>Dialogic / Dialectical: Researcher is &quot;transformative intellectual&quot; who changes the social world within which participants live</td>
<td>Hermeneutical and Dialectical: Researcher is a &quot;passionate participant&quot; within the world being investigated</td>
<td>Case Studies and Convergent Interviewing: Triangulation, interpretation of research issues by qualitative and by some quantitative methods such as structural equation</td>
</tr>
</tbody>
</table>


With reference to Guba and Lincoln’s (1994) synthesis of the major scientific paradigms (see Figure 4.1 above), Healy and Perry (2000, p. 119) note the relationship that exists between the elements of each paradigm. “Briefly, ontology is the “reality” that researchers investigate, epistemology is the relationship between that reality and the researcher, and methodology is the technique used by the researcher to investigate that reality”. So while the ontological issues relate to the researcher’s position of what reality exists, the epistemological issue relates to “how we know what we know?” (Desphande,
and the methodology provides a description of what process the research will follow.

The nature of the research task (i.e. investigating the possible presence of a generative mechanism that is presumed to have directly influenced firm survival) is challenging. In essence, this study attempts to develop a plausible and valid explanation of past events that relate to the operation (and/or suppression) of a generative mechanism that is not directly observable by the researcher but assumed to positively influence firm survival. Mahoney (2003) argues that given that the explanation to be developed relates to an outcome that has already occurred (and therefore cannot be tested); the challenge is to develop a set of testable postulates to tease out the presence of an (unobservable) generative mechanism.

In accordance with the nature of the research task, an epistemology drawn from the realist paradigm (Bhaskar, 1975) has been used. This is inline with my ontological position that the world “consists of abstract things that are born of people's minds but exist independently of any one person” (Healy and Perry, 2000, p. 120). Therefore, it is not my perceptions that are the explicit focus of the research, but rather the need to access a reality that lay beyond my perceptions (Stake, 1995). This is important given the primary research objective of furthering an account of generative mechanisms that allows for the ascribing of (causal) power or potentiality under a given set of contingent conditions. Especially when it is accepted that generative mechanisms “may either be dormant for a
while or they may be counteracted by opposing mechanisms and lead to no events” (Tsoukas, 1989, p. 553).

Therefore, attention must be given to Bhaskar’s (1975) three domains of enquiry (see Figure 4.2 below). First there is the real domain where generative mechanisms exist independently with a potential to cause events under contingent conditions. Secondly, there is the actual domain where observed events or patterns occur. Lastly, there is the empirical domain where the observer experiences the events. So it is the aim of the researcher is “to develop real knowledge of the world by naming and describing the generative mechanisms that result in the events that may be observed” Wollin (1995, p. 80).

**Figure 4.2 – Bhaskar’s Three Overlapping Domains of Reality**

<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Domain of Real</th>
<th>Domain of Actual</th>
<th>Domain of Empirical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Experiences</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Importantly, the knowledge while considered real is still held to be fallible. Realism holds that it may not be possible to observe every permutation relating to the generative mechanism. Therefore, the developed theory must account for the generative mechanism, the events caused under which contingent conditions and other mechanisms or conditions that may counteract or decrease the expected (or potential) influence of the focal mechanism under investigation.
The research design is modeled on Bhaskar’s (1975) transcendental realism and utilizes the process of retroduction\(^{22}\). First, the nature of transcendental realism will be discussed (as it relates to this study) and then the process of retroduction will be explained. Transcendental realism (Bhaskar, 1975) extends the past notion of Kant’s transcendental idealism from what is imagined to empirical confirmation of what is real (Danermark et al., 2002). The focus is not upon the confirmation of empirical regularities that strengthen our confidence in the observed relationship between a particular dependent variable and associated independent variable/s. Alternatively, as noted previously (see Figure 4.2), transcendental realism holds that what we observe empirically (within the domain of the empirical) is produced by events (in the domain of the actual) that are in turn generated by mechanisms (in the domain of the real). Thus, Bhaskar proposes a stratified reality in which knowledge of the empirical world is possible, but only imperfectly due to our limited access to such reality. “Whether a particular causal power is exercised, and whether it manifests itself in the actual and/or empirical domain depends on the ambient contingent conditions” (Tsoukas, 1989, p. 553).

Therefore (once more), it is the aim of the researcher “to develop real knowledge of the world by naming and describing the generative mechanisms that result in the events that may be observed” Wollin (1995, p. 80). Again however, realism holds that it may not be possible to observe every permutation relating to the generative mechanism. Therefore, from the perspective of transcendental realism it is important to account for any such ambient conditions and/or other related mechanisms that may counteract (or suppress) the

\(^{22}\) Not to be confused with the process of *reduction* as described by Van De Ven and Poole (2002).
mechanisms under investigation. Bhaskar’s (1975) process of transcendental realism is illustrated below in Figure 4.3. In the pursuit of knowledge of underlying casual mechanisms that give rise to events, we wish to understand them through experiencing them as researchers. Transcendental realism allows the researcher to imagine (at stage 1) the presence of a generative mechanism, a generative mechanism “which if it were to exist and act in the postulated way would account for the phenomenon in question” (Bhaskar, 1979, p. 15). Between stage 1 and 2, a knowledge building exercise related to the postulated mechanism is commenced, building a model using the cognitive capabilities of the researcher and through living temporarily in the world of analogy and metaphor.

Figure 4.3 – Bhaskar’s Transcendental Realism

To facilitate this endeavor, the process of retroduction is employed. Danermark et al., (2002, p. 96) notes that “retroduction is about advancing from one thing (empirical observations or events) and arriving at something different (a conceptualization of
transfactual conditions)”. The process of retroduction typically proceeds through six stages as illustrated in Figure 4.4 below.

**Figure 4.4 – The Process of Retroduction**

1. **Description**: Prepare a description of the phenomenon making use of the actors’ accounts and a variety of sources
2. **Analytical Resolution**: Distinguish various components, aspects or dimensions of the phenomenon and establish (tentative) boundaries to the components studies
3. **Theoretical Redescription**: Interpret and redescribe the different components applying contrasting theoretical frameworks and interpretations in order to provide new insights (note: this activity sometimes referred to as ‘abduction’)
4. **Retroduction**: For each component, seek to identify basic, or ‘transfactual’ conditions, including structures, causal powers and mechanisms, that make the phenomenon possible
5. **Abstract Comparison**: Elaborate and estimate the explanatory power or the structures, causal powers and mechanisms that have been identified during activities 3 and 4
6. **Concretization and Contextualization**: Examine how different structures, causal powers and mechanisms manifest themselves in concrete situations

Also indicated in Figure 4.4 (above) is the relationship between the chapters of this study and the process of retroduction. Let us briefly consider this relationship starting with the first two stages of the process. In chapter 2 a description of the events surrounding the emergence and subsequent development of the Hobart pizza industry was presented. Based upon the accounts of various founding participants and those who have remained within the industry till present day, a story of firm survival based upon the presence of an ‘invisible force’ emerged. Using archival data, the industry’s composition was reconstructed to identify patterns of survival based on firm strategy and location. By comparing the industry’s development against those occurring in three separate locations
(i.e. Tasmania’s North-East and North-West and Victoria’s Geelong areas) specific aspects (or dimensions) emerged as the prime areas of study vis-à-vis the emerging model of Transferred Demand. As a result, five specific dimensions emerged as components of the proposed model; non-harmful relations, environmental heterogeneity, the ability of firms to alter their environment, the presence of an invisible energy, and lastly, firm survival.

There is an alignment of stage three to chapter 3. The relationship between the identified dimensions and the organizational studies literature was considered and contrasted to the degree in which the dimensions were discussed in the broader ecological literature. Next (i.e. stage four), a process of imaginative musing (using the researcher’s cognitive abilities, past experience and appreciation of the literature) led to the development of 17 postulates. Postulates that emerged from a process of considering how each of the five dimensions fit within the proposed model of Transferred Demand, and importantly, the transfactual conditions that would relate to any such fit.

After presenting the findings in chapter 5, the explanatory power of the model (i.e. stages five and six) is explained (in chapter 6) with reference to the transfactual conditions related to each dimension, as observed, vis-à-vis its operation and/or suppression in the UK context. Importantly, the nature of intentional and unintentional behaviours associated with these transfactual conditions are discussed so that that true nature of the concrete reality that accompanies the workings of Transferred Demand are revealed.
The process of retroduction is used to allow the researcher to access a reality that is likely to not be directly obvious in the domain of the empirical reality. As will be discussed in greater detail, the process of transcendental realism naturally lends itself to a mixed-methods approach (see Creswell, 2003) that enables the events under investigation to be described and viewed from multiple perspectives. Unlike transcendental idealism where (conceptual) knowledge development is possible, Bhaskar’s transcendental realism requires of the researcher to confirm (or disconfirm) the existence of the proposed mechanism in reality as well (i.e. stage 3, see Figure 4.3). That is we must empirically confirm the postulated mechanism, not merely explain its possible existence. In summary, transcendental realism requires the researcher to understand and account for the different levels of reality that exist in society and therefore confirm their presence using suitable research methods. It represents an approach that is in accord with the fundamental requirements of ecology given its capacity to enable the researcher to access the “real life” (Clarke, 1967, p. 21) of the entities under investigation.

4.1.1 Justification of transcendental realism

Having developed the presumption of an invisible force, assumed to positively influence firm survival, the research challenge is to investigate what must exist for such a process to occur. As noted by Danermark et al., (2002, p. 81), when a study seeks to know “what qualities must exist for something to be possible?” and it is expected/known that the required answer/s cannot be directly observed in the domain of the empirical, the process of retroduction is appropriate. When seeking to generate theory about an as yet undiscovered social process (i.e. the invisible force), it is important to avoid inductive
and/or deductive reasoning due to the expectation that they will not provide access to theoretical novelty (Bhaskar and Lawson, 1998). It is preferred that the logic of reasoning be based on analogy and metaphor. Blundell (2007) concurs, arguing that when logically deducing particular historical outcomes or events – rather than testing hypotheses – from a set of assumptions, we can better find evidence about fundamental structures whose powers act transfactually (i.e. in the domain of the real). Blundell also notes that the process seeks neither to use deductive or inductive logic, but rather seeks (via empirical scrutiny) to move from initial description and abstract analysis to the reconstruction of the basic conditions that make possible the mechanism (i.e. Transferred Demand).

From a broader perspective, critical realism is claimed (see Wollin, 1995, p. 85) as valid for the postulation of theory, “in terms of describing generative mechanisms, for which empirical observations of every possible permutation” are not possible. Further, critical realism makes use of the case study method to overcome any such knowledge limitations by its inherent concern for the “clarification of structures and their associated generative mechanisms, which are contingently capable of producing the observed phenomena” (Tsoukas, 1989, p. 556). This is because case studies employing a critical realism perspective focus upon the “workings of real social structures and their causal capabilities, irrespective of their individual manifestations in the domain of experience” (Tsoukas, 1989, p. 559). As a consequence, when working with stratified realities it is important to rely upon the triangulation (Jick, 1979) of multiple perspectives to discover the real world. In summary, critical realism was considered the most appropriate paradigm to use in this study due to the need to discover, identify, describe and then
analyse the structures and generative mechanisms related to the proposed phenomena of 

Transferred Demand.

4.1.2 Justification of mixed-method approach

Given the preference for employing both qualitative and quantitative methods in stage one of the retroduction process (and given the complex and seemingly elusive nature of the generative mechanisms under investigation and the fact they defy explanation be any individual actor), the use of a mixed-method approach is justified. Danermark et al., (2002, p. 153) argue that achieving critical methodological pluralism through mixing methods is desirable, “but this mix must be governed not only by the research question but, and more fundamentally, also by the ontological perspective from which you proceed”23. Strong support exists for the use of a mixed-methods approach in conjunction with critical realism and retroduction (see Baert, 1996; Lawson, 1997; Downward and Mearman, 2007; Lipscomb, 2008). A key to understanding the process of combining methods within this study is ensuring that the focus remains upon generative mechanisms that exist in opens systems and therefore cannot be ‘experienced’ in the domain of the empirical (Danermark et al., 2002). Indeed, it is claimed that mixed-methods triangulation “is an operational statement of retroduction” (Downward and Mearman, 2007, p. 80). The key is to allow each method to complement the other to ensure the limitations and potentialities of each are lessened and enhanced respectively. The actual way in which the process of mixed-methods was employed will be discussed in detail in the next section.

23 See Danermark et al., (2002, p. 150-176) for a full discussion as to the challenges of achieving ‘critical methodological pluralism’.
4.2 Research method

Having considered the underlying ontological and epistemological issues related to the overall research design used within this study, each step of the research method will now be explained. The research method (illustrated below in Figure 4.5) does not mean to convey a sense of strict linear direction. Importantly, though the study did proceed through the six ‘retroduction’ stages, it did so whilst continually returning iteratively to aspects of each step. Therefore, while each step of the process will be explained in a linear sense, it can be assumed that the process (with regards data collection and analysis) in reality was more complicated. Where necessary, justification for the approach undertaken (within each step) will also be discussed.

4.2.1 Getting started

The first step of the method was to develop a research focus regarding an issue I felt passionate about. Prior engagement with the literature led me naturally to various theories of the firm, and in particular, work canvassed from an evolutionary perspective. The paradox that some firms (exposed to apparent increasing competition) survive where other similar firms do not interested me (perhaps due to my own past experiences in business). The notion that survival could be assumed to be largely based on strategy selection (e.g. Stearns et al., 1995) and/or environmental selection (e.g. Hannan and Freeman, 1977) somehow seemed incomplete. The literature seemed to be saying it was either through adaptation or by environmental selection without explaining what was happening in between. Even when the interrelationship between these extreme positions was considered (see Levinthal, 1991), it did little to explain the nature of such
interrelationships. An immediate challenge was to explain what was happening in between these extreme positions vis-à-vis the relationship of any such events/processes to firm survival.

Figure 4.5 – The Retroduction-Based Research Method

Getting started: selection of an industry, selection of the cases, and the nature of the study

Data Collection

1. Description

Hobart: Yellow Pages (Q) / Interviews (q) and Researcher Observations (q)
NE Tas.: Yellow Pages (Q) / Interviews (q) and Researcher Observations (q)
NW Tas.: Yellow Pages (Q) / Interviews (q) and Researcher Observations (q)
Geelong: Yellow Pages (Q) / Interviews (q) and Researcher Observations (q)

Data Analysis

Survival Analysis / Analytical Resolution
Survival Analysis / Analytical Resolution
Survival Analysis / Analytical Resolution
Survival Analysis / Analytical Resolution

Cross Case Analysis (of Hobart, NE Tas., NW Tas., and Geelong cases) to further refine the identification of components for the model of Transferred Demand

2. Analytical Resolution

3. Theoretical Redescription

North Yorkshire: Yellow Pages (Q), Regional Statistics (Q) / Interviews (q), Researcher Observations (q),

Survival Analysis, Community Similarity Index, Canonical Discriminant Analysis, Diversity Indexes, Advertising Efficiency Index, Correlations Theoretical Redescription (noticing-collecting-thinking)

4. Retroduction

5. Abstraction Comparison

6. Concretization and Contextualization

Q = Quantitative Data, q = Qualitative Data
4.2.1.1 Industry selection: Selection of an appropriate industry within which various types of firms have demonstrated survival and/or an inability to survive was the first challenge. The basic (or initial) requirements were to identify an industry that could be studied from inception to present, an industry that could be reconstructed from archival records, an industry within which there has been significant firm transformation, and an industry within which the many current and past participants are accessible to speak to. The pizza industry was chosen due to the fact that the industry had undergone several major transformational events and it satisfied all the basic requirements as stated above.

4.2.1.2 Case selection: The Hobart pizza industry was chosen as the first case purely on the basis that 1) it satisfied the above requirements, 2) I had established social capital within Hobart to gain access to members of the industry, 3) it did not require me to undertake any arduous travel to gain such access, and 4) I was able to immediately collect sufficient quantitative and qualitative data quickly to get the study underway.

4.2.1.3 Nature of the study: The intention of the study was understand what was happening in between vis-à-vis the standard ways of accounting for firm survival. The aim being to not assume a dichotomous relationship between adaptation and external selection, but rather to view the firm / environment relationship as an interrelated process (Levinthal, 1991) from which aspects of either survival explanation was probable once what was happening in between was understood. Therefore, the aim of the study was to investigate the presence of a mechanism’s that under certain conditions may influence the

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24 Aldrich (1999) defines the nature of firm transformation by the extent to which the goals, boundaries and activities of the firm have been fundamentally altered.
probability of survival in one-way or another. The immediate challenge was to attempt to
explain survival and non-survival outcomes. Outcomes that may be based on
unobservable entities and which are also likely to be related to past events, that having
already occurred cannot be directly observed by the researcher. Mahoney (2003) argues
for the use of a particular case study method to develop an outcomes-based explanation
(see Figure 4.6 below). Rather than the traditional testing of a research proposition, we
are required to investigate a series of postulates empirically. Postulates that have been
developed in order to capture the various dimensions of the hypothesized explanation of
the outcome. Where empirical support is gained for the postulates, confidence in the logic
of the research proposition is increased. The primary reason Mahoney argues for this type
of outcomes-based approach is that the events under investigation have already occurred
and therefore cannot be tested (i.e. they do not exist in the domain of the empirical).

Figure 4.6 – The Outcomes-Based Explanation

```
Assumptions to tested

Specific event or outcome

\{ Postulate 1 (Causal Mechanism) \\
\{ Postulate 2 \\
\{ Postulate n \\
\}

\{ Proposition 1 (Firm Survival) \}
```

Source: Mahoney (2003)

4.2.2 Description and analytical resolution – stage 1 & 2 of the retroduction process

The first step of the study was to collect data from which the actual participants of the
Hobart pizza industry could be identified. This was achieved through accessing the
Yellow Pages directories from 1970 to 2005. Previous studies (see Freeman and Hannan,
1983; Usher and Evans, 1996; Staber, 2001) have used the Yellow Pages as a source of data for survival studies. Within this study, the aim was not to sample the industry\textsuperscript{25}, but rather to conduct a census of the entire industry. Unlike those past studies that have investigated short periods of time (e.g. Freeman and Hannan, 1983) or longer periods using data from wide intervals (e.g. Usher and Evans, 1996), this study sought to access the data for every firm and every year to reconstruct the entire industry. Therefore, the study began with the development of a record of which firms participated in the Hobart pizza industry, when they entered, exited, and/or the length of time they survived in the industry. A total of 115 firms were identified for the 36 year period of the study.

Having determined who participated in the industry, the next step was to gain an idiographic understanding of the participants experiences (see Babbie, 2005) via a series of semi-structured interviews to access the reality of the participants. Semi-structured interviews were held with 16 past and current industry participants. The participant interviews generally lasted between 1 to 2 hours. The participants were asked to provide an account of their experiences in the industry, and to comment on the factors that in their opinion determined success and/or failure (as experienced or observed). Therefore, the focus was upon asking ‘how’ and ‘why’ questions (Yin, 2003) to tease out from each participant any underlying causal structures responsible for survival/non-survival vis-à-vis their interpretation of the industries history. This process provided valuable access to the views of those persons who pioneered the industry, who were employed in the industry before spinning-out their own operations, and those persons who entered the

\textsuperscript{25} The term ‘industry’ is used in preference to the term ‘population’ to avoid confusion that is likely to occur with the ecological usage of the term ‘population’ within this study.
industry without prior ‘industry’ knowledge. Also, a search of local newspapers for the period investigated returned several articles related to the industry’s development.

4.2.2.1 Analysis of the data: The Yellow Pages data was used to construct graphs that illustrated the overall number of firms in the industry (in any given year) from 1970 to 2005, and the founding and exit events for each year. Using SPSS Survival Analysis, life tables were constructed with the ‘event’ (i.e. survival or non-survival at the end of the study period) as the dependent binary variable coded ‘1’ for survival and ‘0’ for non-survival. The date of non-survival being determined as the first year that the firm no longer appeared in the Yellow Pages. Informed by the emerging sense of reality from the preliminary participant interviews, several independent variables where incorporated to enable the process of stratification (Norušis, 2008) to account for the influence (or otherwise) of potential confounders. The independent variables were; ‘Location’ (i.e. metropolitan, suburban, or regional), ‘Type’ (i.e. franchised or independent), ‘Specialist / Generalist’ (i.e. the extent to which they advertised as take-away, restaurant, or combination of both), and ‘Year of entry’ (i.e. prior to franchised firms participating, after the first franchised entrant, or after the second franchised entrant).

During the participant interviews, notes were taken and a transcript of the interview was written up and given to each participant for verification that the transcript was an accurate version of their thoughts (see Appendix 4). To avoid the potential for any form of researcher bias (Babbie, 2005) or any accidental weighting being given to one participants’ views over another’s views, a short history of the Hobart pizza industry (see
Appendix 5) was also written and disseminated to all participants for comment. Feedback for the participants confirmed the validity and reliability of the data gathered with no participants noting that the additional elements (to their contribution) in anyway distracted from their account, but in fact created an account that was more complete. The data analysis process used is most accurately described by referring to Seidel’s (1998) Noticing, Collecting and Thinking model. Seidel advocates acknowledgement of the non-linear process of analysing qualitative data. Using an iterative and progressive approach, many of the forms of data were collected, sorted and time was given to thinking about how the various parts of the ‘jigsaw’ might fit together. Thus, comments from participants were compared and contrasted with Yellow Pages advertisements, to newspaper articles, to feedback from consumers, to the survival analysis and so on until patterns among the patterns emerged.

4.2.2.2 Replicating the emergent findings: Having unearthed the first notion of the process of Transferred Demand and a suspicion as to the contingent conditions that might accompany its operation, further cases were sought to determine the validity of continuing the studies current focus. Yin (2003, p. 47) argues that “only with such replications would the original finding[s] be considered robust and worthy of continued investigation or interpretation”. Therefore, data was collected from three regions that are independent economically and socially from the Hobart area. Using the Yellow Pages directories for the North-West and North-East regions of Tasmania and for Geelong in Victoria, data of survival and non-survivors across the period 1970 to 2005 was collected for each year. The three additional cases were selected by the researcher’s need for
analytical (rather than empirical) generalization (Blundel, 2007). Danermark et al., (2002, p.105) argues that when using the process of retroduction, it is logical to rely upon a form of comparative study. That in order to understand the fundamental conditions that inform us as to “what qualities must exist for X to be what it is?”, we must choose “a number of cases which are all assumed to manifest the structure … [we wish] …to describe, but which are different in other aspects”. In addition, this approach also is consistent with Yin’s (2003) multiple case studies logic in that we aim to investigate assumed similarities or expected dissimilarities.

The cases differed in their topography and urban parameters, providing a nice contrast to Hobart. Fewer interviews were conducted in the additional cases as it readily became apparent that each region had developed in a similar manner (vis-à-vis the assumed influence of franchised firm) to Hobart. Glaser and Strauss (1967) uses the term theoretical saturation to describe such a process where the actual number of required participants (to develop reliable data) cannot be known in advance. Whilst it is accurate to conclude that theoretical saturation was reached within these extra cases, the availability of more resources (e.g. time and money) may have enabled access to a greater understanding of differences related to the contingent conditions across and within the additional cases. Patton (1990) acknowledges that this is a limitation inherent to case study research using multiple cases. In total, 4 participants were interviewed in the North-East case, 3 in the North-West case, and 3 (via phone) in the Geelong case. In all, data for 322 firms (Hobart 115, North-East 54, North-West 39, and Geelong 114) was collected and 26 formal interviews were conducted (see Appendix 18).
In addition, numerous ‘informal’ conversations were conducted with persons from all walks of life. These included colleagues, family, friends, and other persons through which normal social interaction occurred. Notes in the form of researcher observations (see Appendix 9) were compiled and used regularly as the research process moved forward. Agar (1996), with reference to forms of ethnographic research uses the term *participant observations* to refer to all observations (both formal and informal) in which the researcher participates. The aim was to follow the lead of the informant and ask questions to clarify points (DeWalt and DeWalt, 2001). It was not the aim to survey a sample of consumers, but rather to allow the researcher to be exposed to empirical support for the notion of *Transferred Demand* via casual informal conversations. DeWalt and DeWalt argue that the fact that the researcher holds interest for a particular topic (i.e. *Transferred Demand*) in the back of their mind means that some form of direction is likely when such conversations unfold around topics related to the study. In essence, people from all walks of life constitute an important element of the proposed process of *Transferred Demand*. Understanding the degree to which they are influenced by advertising and/or understand how people might be is important to establishing support for the *Transferred Demand* concept.

**4.2.2.3 Analysis of the new data:** The same underlying process (noted in 4.2.2.1 above) was used to construct life tables for each region. Transcripts were compiled and checked for verification with those participants interviewed. Once comparisons of comparative survival across the four regions were made, consideration was given to the geographic,
social and economic differences across the four regions. Field notes were compiled for the researcher’s observations of informal conversations that occurred with consumers from all walks of life. The specific dimensions (or components) ‘that must have to exist for Transferred Demand to operate’ were teased out, resulting in the identification of five dimensions thought to comprise any logical explanation of the events thus far investigated (see chapter 2). Thus, the basic conditions under which the proposed mechanism under investigation might be found operating and/or not operating were proposed via a theoretical framework that satisfies both Yin’s (2003) replicating logic and the retroduction process espoused by Danermark et al., (2002).

4.2.3 Theoretical redescription – stage 3 of the retroduction process

The aim of the next stage was to examine the relationship between the proposed dimensions of Transferred Demand with the organizational studies literature vis-à-vis confirming theoretical support for emerging model. The aim of this step of the process is to determine to what extent the dimensions and their possible causal role in the model might also be better explained using alternative theoretical interpretations.

4.2.3.1 Analysis of the literature: Of primary concern was adherence to Hodgson’s (2001, p. 90) Principle of Consistency. This principle states that “explanations in one domain have to be consistent with explanations in another, despite examination of different properties and deployment of different concepts”. Therefore, the first task was to test the support for each dimension within the organizational studies literature vis-à-vis its assumed role within the proposed model of Transferred Demand. Second, alternative
sources of explanation from the broader ecological literatures were consulted for the purpose of achieving a more consistent understanding of each dimension vis-à-vis the underlying ecological approach. Danermark et al., (2002, p. 110) argues that through such a process, “the original ideas of the objects [i.e. dimensions] of the study are developed when we place them in new contexts of ideas”.

A natural consequence of this stage\(^{26}\) is the development of a research proposition and several postulates from which to confirm (or disconfirm) the veracity of the research proposition. In total, 17 postulates were developed. The first three related to the issue of non-harmful relations, and were as follows:

**Postulate 1:** The degree of competition experienced by independent firms in the pizza industry will be explainable by accounting for the type of resource, time of consumption, and specific location vis-à-vis each firm.

**Postulate 2:** The degree of competition experienced by independent firms in the pizza industry can be inferred by the demonstrated endeavor of individual firms to acquire customers.

**Postulate 3:** A lack of competitive behaviours associated with attempting to achieve resource ownership may indicate the presence of facilitative interactions.

The next five related to the issue of the organizational environment, and were as follows:

**Postulate 4:** Identification of the external, ecological and selective environments relating to specific firms will inform the researcher of factors expected to influence the degree of harmful or non-harmful relations between independent firms in the pizza industry.

\(^{26}\) Note however, Danermark et al., (2002, p. 109) state that the sequence of the six stages of the retroduction process “can also be intertwined and not need to follow each other in a strictly chronological order”.

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Postulate 5: The external environment experienced by one or more independent firms in the pizza industry is an identifiable feature that can be reconciled to their existence.

Postulate 6: The ecological environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.

Postulate 7: The selective environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.

Postulate 8: Whilst a group of independent firms in the pizza industry may share a general environment, each individual firm may experience different ecological and/or selective environments.

The next three related to the issue of how firms might alter their environment/s, and were as follows:

Postulate 9: The natural development of franchised pizza firms in the pizza industry will significantly alter the nature of the ecological and selective environments experienced by other associated firms.

Postulate 10: Evidence of niche construction and/or ecosystem engineering in the pizza industry should highlight which specific firms have (and have not) benefited due to change in their respective ecological and selective environments.

Postulate 11: Evidence of niche construction and/or ecosystem engineering in the pizza industry may indicate the possibility that certain populations and/or firms should inherit a survival advantage relative to other populations and/or firms.

The next three related to the issue of generative mechanisms, and were as follows:
Postulate 12: In pizza markets featuring both franchised and independent firms, an invisible force capable of altering both selective and ecological environments is plausible and its presence would be determined by the interaction of franchised and independent pizza firms occurring across time and space.

Postulate 13: The presence of an invisible force will have identifiable transfactual conditions that relate to its tendencies to positively influence independent pizza firm survival.

Postulate 14: The contingent conditions related to the tendencies of any such invisible force are related to and explainable by an understanding the variance occurring in the selective and ecological environments experienced by individual pizza firms.

The last three related to the issue of firm survival, and were as follows:

Postulate 15: The degree to which an invisible force capable of influencing independent firm survival the pizza industry will be directly related to (or explainable by an understanding of) the selective and ecological environments experienced by individual firms.

Postulate 16: Differential independent firm survival in the pizza industry will therefore be related to differences observed in firm type and location.

Postulate 17: Collapsing firms into specialists and generalists will not give rise to as satisfactory explanation of the differential survival outcomes of similar types of firms operating in the restaurant and fast food guild in the North Yorkshire / East Riding region as compared to that developed to explain the assumed presence of Transferred Demand.

4.2.4.1 Analysis of the postulates: The extent to which support was found (or otherwise) for each of the 17 postulates is discussed in chapter five. As illustrated in Figure 4.7 (see page 143), a variety of processes were used to confirm (or disconfirm) the postulates. The overall reliability and validity of the approaches employed is discussed in the final section of this chapter.
4.2.4 Retroduction – stage 4 of the retroduction process

In reality, this step and the previous one are very closely related. Nevertheless, the aim of this step of the process is to produce knowledge of the mechanisms assumed to produce the events related to the phenomena under investigation. Bhaskar (1979, p. 15) states that “the construction of an explanation for … [i.e. the construction of knowledge] … some identified phenomenon will involve the building of a model, utilizing such cognitive materials and operating under the control of something like a logic of analogy … of a mechanism, which if it were to exist and act in the postulated way would account for the phenomenon in question”. Therefore, throughout this stage (and the one prior) the focus was upon asking questions like: What is fundamentally constitutive for the operation of Transferred Demand? How is Transferred Demand possible? Under what conditions does Transferred Demand exist? Under what conditions does Transferred Demand not exist? The answers that emerge through this process relate directly to the next stage of the process. However, within this study, the process of finding support for the postulates entailed the collection of data from the North Yorkshire / East Riding region.

4.2.4.2 – North Yorkshire data collection: The North Yorkshire / East Riding case was chosen using the same logic as used for the three additional cases in the Australian context. That is, a preliminary inspection of the Yellow Pages directories revealed that food industry had undergone a similar transformation from no pizza operators in the late 1960s to a boom throughout the 1980s and 1990s; that the first franchised operator arrived in the mid 1980s and the second in the early to mid 1990s; that the Yellow Pages data was available for a comparative length of time; and that the geographical features of
the landscape included all the various features of the four Australian cases (i.e. large and small towns and seaside towns) and the region was serviced by a local TV network. A key challenge in the second phase of the study was to also collect sufficient data to also compare pizza firm survival to all other sub-populations (see Appendix 6 for a full listing). In this way, any observed survival ‘advantage’ for pizza could be compared to all other sub-populations.

Consistent with the methods used in Australia, the Yellow Pages data was collected and coded with the ‘event’ of survival or non-survival as the dependent variable. A large number of independent variables (see Appendix 7) were developed to account for the diversity of sub-populations investigated and the nature of spatial heterogeneity contained within the study region. In addition, regional statistics were obtained from the National Statistics (http://www.statistics.gov.uk) that enabled detailed demographic, social and economic statistics relating to the entire region and each individual town to be included in the study. Between 2006 and 2008, seven visits (lasting approximately one week) were made to the study region. During these visits, interviews with 9 pizzeria owners (or staff) were conducted (see Appendix 18). An extensive catalogue of photographic evidence of the location of each pizzeria was collected. Also, the operating hours and marketplace positioning of most existing firms was determined. In excess of 35 informal interviews with local residents (e.g. taxi drivers, students, hospitality workers, and other known and unknown persons) were conducted with notes taken of key points (see Appendix 9).
4.2.4.3 – North Yorkshire data analysis: In contrast to the Australian context, most pizzeria owners in the study region were not of Italian origin. This presented some issues in understanding the ‘heritage’ and ‘passion’ of the participants. Many of the pizzerias positioned as restaurants were comparable to those encountered in Australia. However, the take-away/delivery mode of operation differed considerably with less ‘tell-tale’ indicators of quality or authentic disposition. Nevertheless, it was possible to access the opinions of the owners and/or the employees of such operations.

In total, 2440 firms were identified for the period 1975 to 2004 across a total of 24 sub-populations (see Appendix 6). Further stratification of the data to 23 meaningful towns reduced the dataset size (See Appendix 8 for a summary of the characteristics of the data analyzed at the different stages of this study). A common problem for researchers using Survival Analysis is to account for left and right-censoring (i.e. the presence of missing data, see Jones and Rocke, 2002). Within the data collected it is not possible to know from the data when firms commenced prior to 1975. To overcome this issue (i.e. left-censoring), the dataset was reduced to only those ‘new entrants’ that commenced in 1976 or latter (a reduction of 412 firms). Given that the study period ends in 2004, we also have the problem (i.e. of right-censoring). That is, not knowing if the survivors in 2004 continued to be survivors in 2005 and onwards. It was decided to check the status of the 2004 survivors in the 2005 and 2006 Yellow Pages directories to reduce the possibility of overstating the degree of survivorship within the dataset. Of the 119 surviving pizza firms in 2004 only three firms did not survive until 2006. These firms were recoded as non-
survivors in 2004. Thus, in this study a concerted effort has been made to account for both left and right-censoring.

Despite the fact that logistical regression is a commonly used statistical tool in many firm survival studies, the required stratification of the dataset prevented the use of such regression processes. The stratification process created many small sub-sets with insufficient cases to work with the large number of variables used within this study (see Leech, Barrett and Morgan, 2004). However, other statistical approaches were appropriate to use. For example, Canonical Discriminant Analysis was used to build a ‘quantitative’ model of town similarity based upon observable characteristics.

Two process new to firm survival studies (in the organizational studies literature) were developed in this study. The first was the adaptation of Pianka’s (1973) Community Similarity Index to determine the ‘qualitative’ similarity of the towns within this study. This index was created by using the same logic and calculation method used by Pianka; simply X/N, where X is the number of sub-populations common to two towns and N is the total number of sub-populations occurring in either; thus community similarity equals 1 when two towns are identical, and 0 when they share no sub-populations. The second new process was the development of an Advertising Efficiency Index to create adjusted ‘net’ survival outcomes. That is, rather than only working with the ‘gross’ survival outcomes produced by the life tables, a means of adjusting survival outcomes to account for differential advertising inputs was developed. Expressed as \( S \times (1-DF^a) \), where S is the rate of survival generated from SPSS Survival Analysis, and DF\(^a\) is the degree and
frequency of advertising observed (see chapter 5, page 170 for a full explanation of the method of calculating the degree and frequency of firm advertising). Also, simple correlations were used to gauge the nature of coactions occurring between sub-populations within and across towns and paired sample t-tests were used to compare resource availability between towns.

4.2.5 Abstract comparison – stage 5 of the retroduction process

The aim of this stage is to discuss the explanatory power of the model under development vis-à-vis its mechanism and structures. The aim is to unite (in a consistent manner) the theoretical underpinnings of the explanation developed. The key is to determine the priority of explanatory factors through which the transfactual conditions related to the model can be reconciled to its operation (and/or non-operation).

4.2.6 Concretization and contextualization – stage 6 of the retroduction process

Throughout this stage of the process an interpretation of the meaning for any particular mechanism (that is identified) is offered, as is a deeper explanation of the events (i.e. firm survival) under investigation. Importantly, whether or not the contingent conditions occur by accident or are structurally reliable should be determined during this stage. Therefore, this stage of the process seeks to understand under what conditions the events relate to concrete situations. The penultimate section of this chapter discusses the justification for using the process of retroduction, before the final issue of methodological soundness is discussed.
4.2.7 Justification for using the retroduction process

A natural consequence of the ontological approach embodied in this study is several issues that lead naturally towards an inter-disciplinary approach. This study has not sought to reduce the focus of enquiry to a specific level, because it is acknowledged that from a critical realist perspective, reality, being hierarchically ordered, is not reducible (or expandable) in terms of causes and/or organization (Danermark, 2002). Retroduction provides a means of investigating social phenomena from an inter-disciplinary approach.

The purpose of using the process of retroduction is five–fold. First to ensure the various combination of mixed-method tools can be utilized in such a way that the (expected) complexity associated with the assumed process of Transferred Demand can be identified. Second, to avoid falling into the trap of ‘misplaced concreteness’ (see Collier, 1994) whereby assumptions upon how the assumed mechanism should operate are informed from only one body of specialised knowledge at the expense of other domains of inquiry. Third, to facilitate the inclusion of other theoretical ideas through which a more complete understanding of the assumed mechanism may be achieved. Fourth, despite the commonly assumed need for degrees of statistical rigor (in a study of firm survival), the research method must allow the researcher to connect to the world of the practitioner in such a manner that the real life aspects of the assumed mechanism can be determined via reciprocal communications. Lastly, it is important that the process used allows for the use of different methods across different ecological levels due to the fact that the reality examined at each level is expected to differ in important ways.

27 Danermark (2002) argues that an over reliance upon specialised knowledge may distance the researchers from the reality of the mechanism under investigation. That is, in an attempt to abide by the prevailing logic the complexity of the gap between the empirical and real domains may be simplified.
In summary, the chosen method provides the researcher with access to various levels of ontological and ecological reality through which *new knowledge* about the assumed mechanism’s tendencies are possible. Such new knowledge is possible through the combining of other discrete bodies of knowledge (e.g. ecology, zoology and sociology etc) in ways that introduce and/or generate *new approaches* and *methods*. Importantly, the process of retroduction provides the means for the researcher’s observations (chapter 2) to be creatively combined in a model building process (chapter 3) from which to 1) postulate a plausible generative mechanism, and then 2) determine if this mechanism is real (or imaginary) via empirical scrutiny (chapters 5 and 6). Thus, in comparison to other scientific paradigms (e.g. positivism and constructivism), the researcher’s ontological preferences and the demands of investigating an assumed mechanism that may not exist in the domain of the empirical can all be accommodated. Therefore, the incorporation of ecological scale (Wiens, 1989) into this investigation during the processes of *analytical resolution* and *theoretical redescription* has supported the researcher’s capacity to understand *what’s happening in between* the events investigated. Thus, the process of retroduction has facilitated the *epistemological relationship* between the researcher and the reality investigated vis-à-vis the researcher’s ontological preferences (as stated previously).

### 4.3 Methodological soundness

To judge validity and reliability of qualitative research within the realism paradigm, Healy and Perry (2000) draw on the ontological, epistemological and methodological
elements of the paradigm to propose six criteria. Those being; ontological appropriateness, contingent validity, triangulation, methodological trustworthiness, analytic generalisation, and construct validity. The criteria have been strongly supported in the literature as appropriate for the realism paradigm (see Golafshani, 2003; Alam, 2005). This chapter now proceeds with a defence of the realist paradigm used within this study.

4.3.1 Ontological appropriateness

Given the primary objective of the study to investigate the presence of a proposed generative mechanism and to account for the contingent conditions associated with its operation and/or suppression, the world being investigated can be categorized as being Popper’s world 3\(^{28}\) (Magee, 1975) in which the world “consists of abstract things that are born of people’s minds but exist independently of any one person” (Healy and Perry, 2000, p. 120). Therefore, it is not the researcher’s perceptions that are the explicit focus of the research, but rather their ability to access a reality that lies beyond the researcher’s perceptions (Stake, 1995). As such, the ontological position (or realism) adopted in this study is preferred to positivism (that operates in Popper’s world 1 and requires a more objective approach) and/or constructivism (that operates in Popper’s world 2 using more subjective analysis). Transcendental realism is used to ensure that the potential operation (and/or suppression) of the generative mechanism is not only born from the researcher’s

\(^{28}\) Magee (1975) describes Popper’s three worlds in the following manner; World 1 is objective and contains material things (therefore it is positivist), World 2 is born from the subjective mind (therefore it is based on constructivism), and World 3 is related to abstract things born from people’s minds, but which exist independent of anyone person (and is related to realism).
mind (e.g. transcendental idealism), but is also empirically confirmed or disconfirmed. The ontological position adopted is therefore appropriate.

4.3.2 Contingent validity

Pawson and Tilley (1997, p. 150) argue that “unlike the laboratory where the conditions for effective triggering can be created, no such opportunity exists in the social world”. This being especially true when the events under investigation have already occurred, and therefore subject to an outcomes-based explanation (see Mahoney, 2003). Therefore the challenge is to identify the contingent conditions that relate causally to the mechanism under investigation. Through the identification of different types of towns (or environs) and time periods within which the process of Transferred Demand may be activated and/or suppressed, this research has achieved contingent validity.

4.3.3 Triangulation

Healy and Perry (2000, p. 123) argue that “realism relies upon multiple perceptions about a single reality” to access a window of reality that is triangulated. Figure 4.7 illustrates the integration of forms of data (i.e. qualitative and quantitative) and methods of analysis (see page 141). Denzin (1970) identifies four types of triangulation; those being data triangulation, investigator triangulation, theoretical triangulation, and methodological triangulation. Across both phases of this study, data has been gathered in five independent pizza marketplaces across a period of time spanning the early 1970s to 2004. No significant dissimilarities have been observed across the data collected vis-à-vis the process of industry development and the processes of firm survival. The variety of data
gathering strategies employed (see Figure 4.7, over page) provide evidence of data triangulation. Next, whilst the nature of this study precludes the use of more than one researcher to gather and interpret data, care has been taken to consult with colleagues from the broader ecological community to ensure consistent application of ecology theory, and to gain access to the process of ecological thinking as it is germane to the nature of this study. Thus, a degree of investigator triangulation has been achieved.

The process of retroduction requires the researcher to engage in the process of theoretical redescription. Within this study, aspects of the process of firm survival have been viewed from both an organizational studies perspective and also contrasted against multiple ecological perspectives, and therefore, it is claimed that solid theoretical triangulation has been achieved. Lastly, a variety of data collection methods have been employed to advance the researcher’s capacity to understand what’s happening in between the evolutionary processes of selection and adaptation. Thus, it is also claimed that strong methodological triangulation has been achieved within this study.
| Postulate 1 | Yellow Pages data | Data from semi-structured and informal interviews and from researcher observations | Noticing-Collecting-Thinking (NCT) and Correlations |
| Postulate 2 | Yellow Pages data | Data from semi-structured and informal interviews and from researcher observations | NCT |
| Postulate 3 | Yellow Pages data | Data from semi-structured and informal interviews and from researcher observations | NCT and Canonical Discriminant Analysis (CDA) |
| Postulate 4 | Yellow Pages data and Regional statistics | | NCT, Diversity Indices and (CDA) |
| Postulate 5 | Yellow Pages data and Regional statistics | | NCT, CDA, Community Similarity Index (CSI) and Survival Analysis |
| Postulate 6 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | NCT, Paired Samples T-Test |
| Postulate 7 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | Advertising Analysis and Advertising Efficiency Index (AEI) |
| Postulate 8 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | Abundance Ranking, NCT, Diversity Indices, and CDA |
| Postulate 9 | Data from semi-structured and informal interviews and from researcher observations | | NCT |
| Postulate 10 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | NCT, Survival Analysis and AEI |
| Postulate 11 | Yellow Pages data | | NCT, Survival Analysis |
| Postulate 12 | Data from semi-structured and informal interviews and from researcher observations | | NCT |
| Postulate 13 | Data from semi-structured and informal interviews and from researcher observations | | NCT |
| Postulate 14 | Data from semi-structured and informal interviews and from researcher observations | | NCT |
| Postulate 15 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | NCT, Survival Analysis, CDA and Correlations |
| Postulate 16 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | NCT, Survival Analysis and Diversity Indices |
| Postulate 17 | Yellow Pages data and Regional statistics | Data from semi-structured and informal interviews and from researcher observations | NCT and Survival Analysis |
4.3.4 Methodological trustworthiness

Throughout the data collection process in both phases of the study, interviews have been transcribed and notes have been written up from informal conversations (see Appendix 9 for examples). In the first phase of the study, an account of the Hobart pizza industry’s growth and related firm survival was developed (see Appendix 5) and made available to those interviewed. This account has also been published within a journal article related to the first phase of the study (see Jones, 2007). In the second phase this level of feedback was not necessary as the aim was to confirm the similarity of the industry’s development and identify the contingent conditions under which the proposed process of Transferred Demand might (or might not) exist, rather than collect an in-depth account of the industry’s history. Nevertheless, throughout the study, the same methods of data collection and analysis have been used to ensure consistency (Lincoln and Guba, 1985).

4.3.5 Analytic generalization

Given the underlying logic of realism as theory-building rather than theory testing (Healy and Perry, 2000), the emphasis is on analytical generalization, rather than on empirical generalization. The process of case selection is driven by the need to “clarify the necessary and contingent relationships between structures” (Danermark et al., 2002, p. 105). Further, it is not the aim of the study to understand the nature of a specific reality, one that may not allow for prediction (see Danermark, 2002, p. 63). Hence, the particular attention paid to spatial and temporal boundaries to ensure access to the same embryonic processes unfolding at the beginning of the pizza industries in Hobart, North-West and North-East Tasmania, Geelong and within Yorkshire. So the focus within this study has
been upon theory building across several interrelated cases, rather than engaged in any form of activity from which statistical generalization is required. Thus the processes outline above demonstrates analytical generalization.

4.3.6 Construct validity

Within the context of case study research, construct validity is a contentious issue (see Yin, 2003). Yin claims that the use of subjective judgements and weak operational measures are frequently used as reasons to lessen claims of construct validity in case study research. Within this study, the fear of subjective judgements have been nullified by the used of a mix-method approach that has allowed multiple forms of data to wash over the proposed concept of Transferred Demand. Further, a very high degree of field utility, resonance and parsimony (see Gerring, 2001) have been demonstrated for the concept of Transferred Demand throughout this study. That is, with regards to field utility, the only concept that is similar in operation is an economic spillover, but this relates to an externality to which the beneficiaries are difficult to isolate. Whereas, the beneficiaries of Transferred Demand are definable, as are the conditions that relate to its operation.

As the study progressed, formal interviews and informal conversations continually demonstrated resonance for the concept of Transferred Demand. It is intuitively clear how local independent pizza firms benefit from increased consumer demand being transferred to their operations via the behaviour of other (franchised) firms. As such, the term itself achieves a high degree of parsimony in that it clearly describes a specific
process (i.e. the transfer of consumer demand). Lastly, it is worth noting that while this study has made significant progress towards developing construct validity around the concept of Transferred Demand, at this stage, the outcome of the study is the development of a model that requires more empirical testing. Therefore, at this point in time, the model of Transferred Demand is potentially an emergent theory that will develop greater construct validity in its immediate future development.

4.3.7 Summary

The methodology used in this study uses a realist epistemology (i.e. transcendental realism) which emphasises the philosophical importance of theory development. The specific research method used is Bhaskar’s (1979) process or retroduction which was used to allow the researcher to access a reality that is likely to be not directly obvious in the domain of the empirical reality. Cases were selected on the basis of their potential for analytical generalization. A mixed-method approach was used to gain access to more forms of data from which to describe the events under investigation. A combination of quantitative (i.e. Yellow Pages directory data and Regional statistics) and qualitative (i.e. semi-structured interviews, informal conversations and research observations) provided the impetus towards understanding the complexity of events investigated across five different, yet similar landscapes. The data was also analysed using several ecology-based methods. The method is defended on the basis of Healy and Perry (2000) criteria for assessing the validity and reliability of research undertaken within the realism paradigm.
4.4 Researcher reflection – all is data...

During the very early stages of this research I had the good fortune to meet with and discuss this study with Dr. Barney Glaser. During the course of our various conversations over a three day period I became very aware of his mantra that ‘all is data’. When writing this chapter, I initially felt my best efforts to describe my method was failing. The iterative pathways I have travelled across the world and in my mind to complete this study have been chaotic and full of never-ending data. During one particular conversation about the complexity of my study with Barney, he smiled and said, “Keep trying ... it will emerge”.

This left me feeling somewhat comforted, but nonetheless confused as to what ‘it’ was. My desire to conduct this study from an ecological perspective enabled ‘it’ to emerge. Once I discovered the logic of Bhaskar’s stratified reality my world opened up, and data appeared everywhere in my world, arranged in space and time. It seems that rather than trying to fit the data into a methodological process, I was using a methodological process that helped me to fit into the data. Every question in my mind could be answered through my continuing conversations with the world around me. The logic that begins to emerge in the next chapter has emerged through my capacity to notice all things, to collect all things, and finally, to think about all things.
CHAPTER 5
Findings of the Yorkshire Case Study

5.1 Introduction and overview

The purpose of this chapter is to present the case study findings for the North Yorkshire and East Riding meta-guild of restaurant and food providers. The chapter is structured in the following manner. First, a brief overview of the study area is provided along with a general comparison of the pizza sub-population (vis-à-vis the Australian contexts). Then a description of the nature and abundance of all other sub-populations operating in the guild is provided. Second, the extent to which support was found (or not found) for each of the 17 postulates will be presented. The chapter will conclude with a discussion of the overall support found for the research proposition presented in chapter 3.

5.2 Overview of the North Yorkshire and East Riding Context

As noted in chapter 4, the North Yorkshire / East Riding region was chosen for several reasons (as discussed in chapter 4), none the least because of the nature of economic transition that has occurred across similar spatial and temporal boundaries. Since 1974, North Yorkshire has been a shire county located in the Yorkshire and Humber region of the England. Covering 8,654km2, it is the largest county in the England, incorporating the local government districts of Selby, Harrogate, Caven, Scarborough, Hambleton, Ryedale, and Richmondshire. Several towns (i.e. Pocklington, Mkt Weighton, Goole, Howden, Bridlington, Hornsea, Withernsea, and Driffield) from neighboring East Riding also form a significant part of the study area. The boundary of the study area has been
determined by the ‘York’ Yellow Pages coverage 1975 to 2004 (see Appendix 1). The extent of the area is illustrated in Figure 5.1 below.

**Figure 5.1 – The North Yorkshire / East Riding Area**

The combined population of the two areas was 883,773 (Census, 2001), with 569,660 in North Yorkshire and 314,113 in East Riding. Set in the greater Yorkshire and Humber region, both areas contribute to a regional economy with a GDP in excess of 75.2 Billion (Yorkshire Forward, 2007). During the period under investigation, 2,440 firms across 24 sub-populations comprised the North Yorkshire / East Riding guild. Whilst the primary focus is on the survival of firms within the pizza sub-population, particular interest is also given to the survival of five other predominant sub-populations (e.g. Fish & Chips, English, General, Indian, and Chinese sub-populations) through which different forms of inter-specific competition/facilitation was observed.

The study area is of similar size to the four plots examined in Australia, and contains all of the specific features unique to each plot (e.g. coastal towns with seasonal populations, isolated towns, fringe towns, and large cities). The timing of key events is very similar
across the Australian and North Yorkshire / East Riding contexts. As illustrated in Figure 5.2 below, the development of the pizza industry across the contexts outlined above has been remarkably similar. All four industries commenced in the early to mid 1970s. With the exception of Geelong, all experienced the entry of the Pizza Hut franchise in the early to mid 1980s. All experienced the advent of home delivery in the mid to late 1980s, and all subsequently experienced the arrival of a second franchise organization in the early to mid 1990s.

**Figure 5.2 – Comparison of Key Events**

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<tr>
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<th>70 to 74</th>
<th>75 to 77</th>
<th>78 to 80</th>
<th>81 to 83</th>
<th>84 to 86</th>
<th>87 to 89</th>
<th>90 to 92</th>
<th>93 to 95</th>
<th>96 to 98</th>
<th>99 to 01</th>
<th>02 to 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hobart</td>
<td>#</td>
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<td>Ω</td>
<td>*</td>
<td></td>
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<tr>
<td>NE Tas.</td>
<td>#</td>
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<td>Ω</td>
<td>*</td>
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<td>NW Tas.</td>
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<tr>
<td>Geelong</td>
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<tr>
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<td>Ω</td>
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</tbody>
</table>

Legend: # = Industry commencement, * = 1st Franchise enters, Ω = Commencement of delivery, and * = 2nd Franchise enters

When the rate of survival for the 507 independent pizza firms (116 Hobart, 39 NW Tas., 54 NE Tas., 113 Geelong, and 185 Yorkshire) across all five plots is examined, a similar pattern of survival emerges both overall, and across geographic space. Figure 5.3 below also highlights the rate of cumulative survival across metropolitan (215 firms), Suburban (127 firms), and regional (165 firms) areas; (a) whilst the Yorkshire region demonstrates higher survival for independent pizza firms, the patterns of survival are relatively consistent. Once compared across geographic location (i.e. b, c, and d), survival relationships for the plots become both more fragmented over time, and location; (b) long-term survival in Yorkshire region, Geelong, NE Tas., and Hobart in metropolitan...
areas tend to converge over time; (c) in suburban areas, there is significant differences of around 20% regarding survival across the plots; (d) with the exception of NE Tas., there are both strong similarities in regional areas and also evidence of overall higher survival patterns across the plots.

Figure 5.3 – Comparison of Independent Pizza Firm Survival

As illustrated in Figure 5.4 below, there is a particular difference between the nature of pizza franchise operations in the North Yorkshire / East Riding guild. Whereas in
Australia, the franchised pizza firms largely positioned their operations towards the takeaway / delivery market segment, this has not been the case in the UK context: (a) the operations of Pizza Hut tend to be both company owned, and predominantly focused on servicing the metropolitan dine-in segment; (b) alternatively, the operations of Domino’s are tightly focused on the take away / delivery segment; (c & d) consistent with the Australian context previously discussed, independents compete for both dine-in and take away / delivery segments. The primary difference being that service and ambience factors related to the franchise operations are communicated differently, providing less uncontested space for independent firms.

Figure 5.4 – Examples of Competing Organizational Forms

(a) Franchised Restaurant Format          (b) Franchised Pickup / Delivery Format

(c) Independent Restaurant Format          (d) Independent Pickup / Delivery Format
Of critical importance, interviews with both main franchise organizations (i.e. Pizza Hut and Domino’s) revealed that they do not consider the other to be their primary competitor, they are targeting separate types of consumers. As will shortly be discussed, this suggests that independent pizza firms in the North Yorkshire / East Riding guild (i.e. a group of similar sub-populations exploiting a common resource in a similar way) will operate under a different context from those in Australia.

5.2.1 The North Yorkshire and East Riding Guild Composition

As previously noted, during the period under investigation, 2,440 firms across 24 sub-populations of food providers comprised the North Yorkshire / East Riding guild. At the start of the study period, there where no pizza operators in the guild. Figure 5.5 (over page) provides an account of the relative abundance of the 24 sub-populations across the guild over the time period of the investigation. Pizza, Indian, and Asian (or Chinese) sub-populations have experienced the most growth across the time period illustrated.

29 Although, it is noted that two incumbent restaurants latter repositioned their operations within the sub-population shortly after the entry of the first franchise operator.
Figure 5.5 – Sub-Population Composition 1975 – 1990 - 2004

(a) Northern / East Yorkshire 1975 - Abundance Ranking

(b) Northern / East Yorkshire 1990 - Abundance Ranking

(c) Northern / East Yorkshire 2004 - Abundance Ranking
Changes in the nature and composition of the (aggregated) guilds can be explained by the following rationale and observations. Across the time period, there was a major shift in household expenditure on restaurant and takeaway food. As illustrated in Figure 5.6 below, the amount of (unadjusted) expenditure on take away and restaurant food has increased dramatically. In line with global consumer trends ‘fast food’ sub-populations have been quite noticeable favored throughout the period.

![Figure 5.6 – Increasing UK Expenditure on Restaurant and Take Away Food](image)

Figure 5.7 below illustrates the increasing prominence of the Asian, Pizza, and Indian sub-populations throughout the North Yorkshire / East Riding Guild. Whilst Chinese outlets (as restaurants) were evenly distributed across the landscape from as early as 1975, the other two major take away sub-populations had yet to establish a strong presence.

30 Figure 5.6 is based on data from the National Statistics ‘Family Food in 2004-05’ publication, and the National Statistics ‘UK household and eating out expenditure of food and drink’ for the period 1974 to 2005.
What is also noteworthy is the increasing dominance of pizza over the other two main take away sub-populations. By 2004, pizza is the most dominant take away sub-population in 10 of 23 towns, a rise from dominating 2 in 1985 and the 7 in 1995. Figure 5.8 (over page) graphs the comparative rates of population size across the six major sub-populations.
The trend to takeaway and delivered food whilst benefiting Chinese, Pizza, and Indian, has not benefited the Fish & Chips, General (i.e. those that are positioned without any specific specialization) or the traditional English sub-populations. These six main sub-populations have represented the vast majority of firms in the guild during the course of the past 30 years (1975 = 90.2%; 1990 = 89.6%; 2004 = 83.3%). Along with a specific focus on the survival of pizza outlets, consideration of these other dominant sub-populations will allow for a clearer picture of the issues pertinent to overall survival in the guild. The latter two sub-populations (General and English) will be combined with the remaining 17 sub-populations to form the category ‘all other food’.

5.2.2 Survival Patterns – Aggregated Level

Overall, the number of firms represented in the Yellow Pages directory (in the classifications; Fish & Chip Shops; Take Away Food; Pizza Delivery & Takeaway; Restaurants; Food & Drink Delivered) for the period 1975 to 2004 rose from 412 to 899.
Whilst Figure 5.8 (above) reveals the extent of growth variation across the 6 primary sub-populations, Figure 5.9 (below) highlights strong and steady aggregate growth across the time period.

**Figure 5.9 – North Yorkshire / East Riding Population Growth**

The rate of growth with the guild has remained positive with the exception of 3 years (1993, 2003 and 2004). Given the global recession in the early 1990s and the decline of the more traditional sub-populations, this suggests the guild has yet to experience a severe shake-out. Figure 5.10 below illustrates the cumulative survival rate for the main sub-population groups across the time period studied. Consideration has been given to the possible impact of ‘left censoring’ (Norušis, 2008) of the data. However, as is shown below, there is little noticeable difference between (a) the overall patterns of survival when the 412 incumbent firms are removed and only new entrants (b) occurring in and beyond 1976 onwards are considered\(^{31}\).

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\(^{31}\) Unless otherwise stated, the findings reported will relate to the ‘overall’ population. Additionally, unless otherwise stated, all franchised pizza outlets have not been included to ensure reported independent pizza firm survival is not biased by their market strength. Franchised firms in all other sub-populations remain.
When temporal variance (see Figure 5.11, below) is accounted for, pizza survival remains relatively superior to all other sub-populations with the exception of Asian and Fish & Chips. It would seem that whilst the data is aggregated, even attempting to account for temporal variation is insufficient to reveal discernable or important survival trends. Given that the assumed superior survival in Tasmania and Geelong (see Appendix 10) was related directly to both time and space, another level of analysis is required.
5.2.3 Survival Patterns – Disaggregated Level

There are 85 towns identified in the North Yorkshire and East Riding guild of restaurant and food providers. The majority of towns that are very small (less than 1000 residents) have been discarded from the analysis as a result of 1) having no Pizza/Asian/Fish & Chip outlets, and/or 2) not having sufficient data to provide meaningful survival analysis. A full list of the towns is provided in Appendix 11. The 23 towns highlighted in Figure 5.12 accounts for in excess of 93% of the total aggregated population (i.e. 2272 firms of a possible 2440 firms). These remaining 23 (primary) towns are differentiated by geographic location, growth occurring across the study period time, size by residents, proximity to other towns, and the composition of the guild vis-à-vis the various sub-populations. Essentially, the 23 towns are not synchronized in any observable economic way vis-à-vis the development of the guild in each town. As evidenced by the (arbitrary) comparison of 1st, 2nd, and 3rd generation firms in Appendix 12, there is no consistent pattern of guild development/composition across the 23 towns. Thus, the process of succession across the 23 towns contributes much heterogeneity across the towns.
Many underlying similarities are present across this group of towns. Across 17 towns for which comparable data is available (NSO, 2001), there are very little observable differences in ethnic composition. 99.3% of residents belong to a white ethnic group ($\bar{X} = 99.3$, $S.E. = .077$, range = $\geq 98.40$ to $\leq 99.70$, $N = 17$), with 97.6% born in the UK ($\bar{X} = 97.6$, $S.E. = .272$, range = $\geq 95.00$ to $\leq 98.90$, $N = 17$). On average, 18.5% are aged under 15 ($\bar{X} = 18.5$, $S.E. = .431$, range = $\geq 14.30$ to $\leq 22.00$, $N = 17$) and 10.5% ($\bar{X} = 11.48$, $S.E. = .542$, range = $\geq 7.50$ to $\leq 15.80$, $N = 17$) over 75. There is little difference between the size of households ($\bar{X} = 2.25$, $S.E. = .022$, range = $\geq 2.03$ to $\leq 2.25$, $N = 17$), however, there are noticeable differences regarding the attainment of education qualifications throughout the towns. While a similar degree of residents have attained a level 2 qualification ($\bar{X} = 20.00$, $S.E. = .370$, range = $\geq 17.20$ to $\leq 22.30$, $N = 17$), there much difference between the towns vis-à-vis those that have acquired no qualifications, or only level 1 ($\bar{X} = 50.86$, $S.E. = .1.933$, range = $\geq 39.30$ to $\leq 69.00$, $N = 17$), and those that have attained levels 3, 4, and/or 5 ($\bar{X} = 22.61$, $S.E. = 1.323$, range = $\geq 13.20$ to $\leq 31.20$, $N = 17$).

Not surprisingly, given the spatial distribution of the towns, there are also noticeable differences between the distances traveled to work by residents of the towns. Across the towns, 59.5% of residents travel less than 5km to work ($\bar{X} = 59.47$, $S.E. = 2.033$, range = $\geq 44.70$ to $\leq 78.00$, $N = 17$) and 11.4% travel between 20km and 40km ($\bar{X} = 11.37$, $S.E. = .657$, range = $\geq 6.10$ to $\leq 17.30$, $N = 17$). Finally, the spatial proximity of the towns to other large towns (i.e. York, Harrogate, Scarborough or Bridlington) differs quite noticeably ($\bar{X} = 12.29$, $S.E. = 1.218$, range = $\geq 3.00$ to $\leq 20.00$, $N = 17$).
Figure 5.12 below illustrates the critical relationship between guild growth and potential resource availability. Towns that experienced the most significant guild expansion (e.g. Pocklington) experienced the greatest decline in potential resource availability\(^{32}\). Alternatively, towns with the least guild expansion (e.g. Malton) experienced the least decline in potential resource availability. The blue (poly) trend line also illustrates the apparent relationship between new entrant survival and guild growth and declining resource availability. Examination of inter-guild variance reveals further significant heterogeneity, highlighted in the survival plots for all 23 primary towns presented in Appendix 13. Figure 5.13 (over page) reveals the level of (a) overall survival variance (i.e. all sub-populations combined) across all 23 primary towns and (b) the even greater survivorship for pizza firms across the primary towns\(^{33}\).

Figure 5.12 – Guild Growth versus Potential Resource Availability

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\(^{32}\) See Appendix 15 for a complete list of the potential resource availability in each town across the study period. Calculated as the total potential average consumer spend / the total number of firms in each town.

\(^{33}\) Three towns (i.e. Easingwold, Mkt Weighton, & Pocklington) are not listed in the side legend, but are calculated in the plots.
Figure 5.13 – Overall Survival across 23 Primary Towns

Overall Survival across 23 Primary Towns

Overall Pizza Survival across 23 Primary Towns
Many factors, typically left unexplained as ‘unobserved heterogeneity’ have emerged through which the nature of the variance observed can be examined. As illustrated in Figure 5.14, there is no obvious direct relationship between overall firm survivorship and pizza firm survivorship. This tends to suggest that localized processes, specific to each town and their location may have a greater bearing on pizza firm survivorship than any particular region-wide factor.

**Figure 5.14 – Within Town Median Survival**

It would seem that town size is not a specific factor related to pizza firm survival. The rate of survival across the main sub-population groups differs regardless of individual town residential population. As illustrated in Figure 5.15 (over page), there is little
obvious pattern to the survival of the main sub-populations across large towns (a) and (b) or in medium sized towns, (c) or (d). Whilst pizza survival dominates both Scarborough and Malton, its comparative survival in Harrogate and Ripon is noticeably less. There would appear to be many specific factors that assist explanation of the Harrogate / Scarborough comparison. In Harrogate, Pizza Hut has always provided both a restaurant format and delivery service. The arrival in the early 1990s of Domino’s has reinforced the positioning of Pizza Hut as a restaurant style operation that also catered to delivery, and of recent times, just solely a restaurant. As a result, independent pizza outlets must contend with a franchised operator positioned as a restaurant (i.e. Pizza Hut) and another (i.e. Domino’s) positioned solely towards the delivery / takeaway niche. Alternatively, not only have Domino’s not commenced operations in Scarborough, Pizza Hut has not provided a delivery service in Scarborough, preferring to remain a within city restaurant. As a result, independent pizza outlets have not contested the Scarborough market against franchised operators in any significant way.

Figure 5.15 – Town Size and Survival Variance
In contrast, the most obvious difference between Ripon and Malton is the geographic location. Ripon, on the outskirts of Harrogate and Malton isolated between York and Scarborough. Whilst neither town has hosted franchised operators, Ripon it would seem potentially loses local residential expenditure to Harrogate due to the increased mobility of its residents. Many work in and commute frequently to Harrogate and York. Alternatively, the local residential population of Malton is less likely (NSO, 2001) to travel beyond five kilometers to travel to work. Such qualitative differences highlight the degree of heterogeneity within the North Yorkshire / East Riding guild.

In summary, one specific difference between the Australian and UK contexts was the lack of Italian pizzerias. Whilst Italian restaurants were essentially operated by persons of Italian decent, the pizzerias where mostly not. As a result, pizzerias tended to operate more in a generalist mode (i.e. selling chicken, kebabs and hamburgers etc). Nevertheless, many pizzeria operators also felt the idea of *Transferred Demand* described the reality they frequently experienced. Overall, the nature of independent pizza firms’ survival would seem remarkably similar to that observed in Australia. Informal
conversations with local residents in the region confirmed the basic underlying behaviour previously observed in Australia that gave rise to speculation about the process of *Transferred Demand*.

**5.3 Postulate Support**

This section will present specific evidence that provides varying degrees of support for each of the 17 postulates developed in chapter 3. The first set of postulates (i.e. 1, 2 and 3) relate to the presence of harmful and non-harmful relations between guild members.

**5.3.1 Postulate 1**

*The degree of competition experienced by independent firms in the pizza industry will be explainable by accounting for the type of resource, time of consumption, and specific location vis-à-vis each firm.*

Observational data (presented in Figure 5.16 over the page) reveals the extent to which pizza shops avoid direct competition. In Ripon, (a) Valentinos operates as a pizza restaurant (positioned to couples) not delivering to homes, (c) not open for lunches. Alternatively, (b) Prima which is situated close by and also a pizza restaurant (positioned to families), (d) opens for lunches latter in the week, and delivers to home.
Despite their close proximity, Valentinos and Prima seek a different resource (i.e. customer) type, at different times and at different locations (due to the provision of home delivery). Another simple example is the relationship between Pizza Hut and Dominos. (e) Pizza Hut is located downtown, (g) serving lunch and early dinners in an affordable restaurant setting, but not providing home delivery. Alternatively, (f) Dominos is located in the suburbs, (h) not offering lunchtime service (except weekends) or restaurant service, only delivering or accommodating pick-up. Clearly they do not compete head to head.
The above examples are very typical of the way in which pizzerias organize their operations. They cater to different types of customers (price conscious, family oriented, business oriented, delivery oriented etc), in different locations and at different times. Informal interviews with various operators confirmed a lack of competitor focus regarding the operations of other local pizzerias. Importantly, the pizzerias did not market their operations to any of the other 22 towns investigated. Therefore, across the total number of pizzerias investigated, the actual possibility of interaction between shops was very low, and mainly restricted to the largest towns. In summary, there was sufficient evidence obtained from observation data and interviews to determine that local
independent pizzerias operating in the North Yorkshire / East Riding region experience very low levels of direct inter-firm competition from other pizzerias.

5.3.2 Postulate 2

The degree of competition experienced by independent firms in the pizza industry can be inferred by the demonstrated endeavour of individual firms to acquire customers.

Informal interviews and examination of past and current archival records suggest that a key difference between towns is the degree of competitive behaviors between Pizza firms used to attract and retain customers. Towns located closer (i.e. Ripon, Stamford Bridge, Filey, Selby, Knaresborough, Withernsea and Easingwold) to the previously identified larger towns (i.e. York, Harrogate, Scarborough and Bridlington) were observed to be more inclined to advertise\textsuperscript{34} in order to maintain their individual presence. Whereas towns located further away from larger towns (i.e. Goole, Thorne, Howden, Malton, Hornsea, Pickering, Market Weighton, Pickering, Pocklington, Helmsley, and Kirkbymoorside) appeared less inclined to advertise. Indeed, as illustrated in Figure 5.17 over the page, there is an obvious difference between those pizza firms located in ‘connected’ towns nearer to the large towns and those more ‘isolated’ towns located further away from the larger towns.

\textsuperscript{34} The Yellow Pages directory was used as a data source to determine the degree and frequency of advertising. The raw number of advertisements observed has been converted into a percentage figure using the following formula. First, three sizes of paid advertisements were observed; small, medium and large. Each small advertisement was allocated a weighting of ‘2’, each medium advertisement a weighting of ‘4’, and each large advertisement a weighting of ‘6’. Small advertisements were more frequent than medium advertisements, and both small and medium advertisements were very much more frequently observed than large advertisements. Second, a multiple of ‘3’ was used to represent the highest normal level of advertising typically observed. Third, the total weighted advertisements were divided by the total firms (multiplied by ‘3’) in any given year/town/sub-population.
Prior to the entry of Pizza Hut in the mid 1980s, pizza was mainly found in large towns, and clearly as a new food type required sufficient advertising to gain market awareness and acceptance. After Pizza Hut entered, less advertising occurred in the large towns, whilst it began to increase in the connected towns and continued to do so after the arrival of Domino’s in 1992. Conversely, the level of advertising in isolated towns remained comparatively low throughout the same period. The actual significance of such apparent low advertising is highlighted in Figure 5.18 over the page. With the exception of Fish & Chips (which is the lowest advertiser in all conditions), pizza advertising is significantly different (t-test, .001) in (b) isolated towns than in (a) connected towns and (c) large towns.
The above illustrations demonstrate a clear difference in the advertising practices of pizza shop owners in the region. For example, pizza shop owners in connected towns (i.e. Ripon and Knaresborough) report having to advertise to keep local business in their
towns rather than allowing locals to dine out elsewhere in a nearby larger town. Respondents noted a perceived need to attract and retain local patronage was ultimately seen as also contributing to localized advertising wars with an ‘every man for himself’ attitude surrounding such behaviours. Alternatively, in the isolated towns, it was difficult to find such sentiment. The spatial proximity to larger towns reduced the attractiveness of locals traveling to larger towns to dine out. Essentially the pizza firms had captive audiences who were regularly exposed to the televised advertising of both Pizza Hut and Dominos. Figure 5.19 below illustrates the stark (and significant) difference (t-test, .001) between the rate of survival for pizza shops in connected and isolated towns and the respective levels of advertising that relate to firm survival for the period 1983 to 2004. Clearly, at this intermediate level of analysis (i.e. neither at the regional level nor individual town level) a difference between the nature of competitive interactions between local pizza shops operating in connected and isolated towns is observable.

Figure 5.19 – Survival and Advertising in Connected and Isolated Towns
In summary, the evidence presented above supports the notion that the competitive position of local pizza firms, vis-à-vis their local market place, can be inferred by accounting for the nature of their advertising expenditure.

5.3.3 Postulate 3

A lack of competitive behaviours associated with attempting to achieve resource ownership may indicate the presence of facilitative interactions.

With regard the possibility that the nature of coaction between guild members may aid firm survival, the above reported findings (i.e. postulates 1 and 2) suggest a difference in coactions occurring between pizza firms located in connected and isolated towns. To determine if the presence of facilitative coactions are occurring we need to consider this issue at the level of the town, rather that at the level of the ‘type of town’ (i.e. connected or isolated). Four towns (Malton & Market Weighton and Ripon & Knaresborough) provided access to sufficient data from which to compare and contrast the nature of coactions vis-à-vis advertising and survival for all guild members. Figure 5.20 over the page illustrates the percentage of pizza, Indian and Chinese firms in each town advertising for the period up to 1999 (i.e. <2000) and after 1999 (i.e. >1999). The percentages reported relate to the degree of actual advertising divided by actual possible advertising (calculated as explained previously).
Leaving aside the Fish and Chip shops (who by and large simply don’t use paid advertisements), we observe a decrease in pizza advertising in Isolated towns (i.e. Malton & Market Weighton) after 1999. Alternatively, a substantial increase in advertising in the connected towns (i.e. Ripon & Knaresborough) is typically observed across all three sub-populations. Therefore, we would expect more competitive coactions between pizza, Indian and Chinese (i.e. Asian) firms in the connected towns and an increased possibility of positive (facilitative) coactions in the isolated towns. This expectation is largely confirmed in Figure 5.21 over the page. In (a) and (b), Ripon and Knaresborough respectively, the frequency of negative and/or positive population growth correlations is of equal proportions between pizza, Indian and Chinese firms. Alternatively, in (c) and (d), Malton and Market Weighton respectively, there are no negative positive population growth correlations; essentially there are only positive (and highly significant) correlations.
Figure 5.21 – Population Correlations in Connected and Isolated Towns

(a) Correlations

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(b) Correlations

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(c) Correlations

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(d) Correlations

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<td>.000</td>
<td>.161</td>
<td>.001</td>
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</tbody>
</table>

* Correlation is significant at the 0.01 level (2-tailed).

Whilst there are negative and positive population growth correlations between all ‘other’ traditional firms, this could simply represent the strength of facilitative relations between the pizza, Indian and Chinese firms. In summary, the degree (or patterns) of advertising by pizza, Indian and Chinese firms in individual isolated towns is consistent with the possible presence of facilitative coactions.

5.3.4 Postulate 4

Identification of the external, ecological and selective environments relating to specific firms will inform the researcher of factors expected to influence the degree of harmful or non-harmful relations between independent firms in the pizza industry.
The degree to which firms experience different external, ecological and selective environments should be evidenced by an identifiable variance across the 23 towns under investigation. Support for this postulate should involve the identification of specific factors that are reconcilable to the general conditions experienced (i.e. the external environment), factors of growth (i.e. the ecological environment), and factors that impinge directly on firm survival (i.e. the selective environment). The first task therefore is to determine what degree of variance\textsuperscript{35} exists across the 23 towns investigated.

Figure 5.22 below highlights the variance across the 23 identified towns with respect to differences in diversity, evenness, dominance, and richness indices.

\textbf{Figure 5.22 – Diversity, Evenness, Dominance, and Richness Indices}

\textsuperscript{35} All indices calculated using the PAST software program (http://folk.uio.no/ohammer/past/diversity.html). The Diversity Index (Shannon index) takes into account the number of firms as well as number of sub-populations. Varies from 0 for communities with only a single sub-population to high values for communities with many sub-populations, each with few firms. The Evenness Index (Shannon index divided by the logarithm of number of sub-populations) measures the evenness with which individuals are divided among the sub-populations present. The Dominance Index (Berger-Parker index) is simply the number of firms in the dominant sub-population relative to the overall number of firms in total. The Richness Index (Margalef's index) or, \((S-1)/\ln(n)\), where \(S\) is the number of sub-populations, and \(n\) is the number of firms.
The use of diversity indices (above) provides a means to observe a snapshot of the actual nature of ecological difference between the individual towns. Organized from most guild diversity (Harrogate) down to least guild diversity (Helmsley), there are noticeable differences between the towns vis-à-vis their composition and sub-population balance. It is revealed that the larger towns have higher levels of diversity and firm richness, whereas the smaller towns are more likely to have an even guild structure, that may nevertheless be dominated by one particular sub-population.

A clear challenge at this stage is to untangle the range of possible predictors of environmental heterogeneity. A useful method of analysis to tease out how the town environments might differ is Canonical Discriminant Analysis. Using the individual towns as a dependent categorical variable, we can test the relationship between each town and a diverse set of independent variables (e.g. the full range of diversity indices, the change in resources, the growth of the guild, and the relative abundance of resources). Figures 5.23, 5.24, and 5.25 (on the following pages) present the results of using discriminant analysis for the years 1975, 1990, and 2004.
Simply put, statistically, there is a highly significant difference between the examined towns across a combination (i.e. discriminant functions) of the following variables; Guild change, Resource abundance, Margalef index, FisherALPHA index, and Resource change. These variables (illustrated in the structure matrix) provide insights into the varied composition of the general, ecological, and selective environments across each town.
Whilst nearly all of the variance of the model is explained by the first two discriminant functions (i.e. 1 and 2), the Wilks’ Lambda values indicate that all five variables are useful within the model. The association between the discriminant scores and the towns is strongly correlated, as evidenced by the values all equaling 1.

The very low value of the Wilks’ Lambda indicates greater discriminatory ability of the function. The incorporated chi-square statistic tests the extent that the means of the
functions used are equal across the towns investigated. The small significance value indicates that the discriminant function does better than chance at separating the towns.

### Wilks' Lambda

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
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<tbody>
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<td>1 through 5</td>
<td>.000</td>
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<td>90</td>
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<td>2 through 5</td>
<td>.000</td>
<td>1008.584</td>
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<td>.000</td>
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<td>3 through 5</td>
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<td>700.161</td>
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<td>.000</td>
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<td>4 through 5</td>
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<td>14</td>
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**Figure 5.24 – Inter-Town Variance 1990**

**Canonical Discriminant Functions**

Again, in 1990, the half way mark of the study period, statistically, there is still a highly significant difference between the examined towns across a combination (i.e.
discriminant functions) of the following variables; Guild change, Resource abundance, Dominance index, FisherALPHA index, Resource change, and the Exit rate. These variables (illustrated in the structure matrix) provide insights into the varied composition of the general, ecological, and selective environments across each town.

### Structure Matrix

<table>
<thead>
<tr>
<th></th>
<th>Function</th>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
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<td>.285</td>
<td>.170</td>
<td>.060</td>
<td>-.200</td>
<td>.496</td>
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<td>Resource Abundance</td>
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<td>.697(*)</td>
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<td>Resource Change</td>
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<td>.009</td>
<td>.002</td>
<td>-.070</td>
<td>.997(*)</td>
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<td>.047</td>
<td>.004</td>
<td>-.082</td>
<td>.979(*)</td>
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<tr>
<td>Exit Rate</td>
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<td>.020</td>
<td>-.157</td>
<td>.123</td>
<td>-.051</td>
<td>.978(*)</td>
</tr>
</tbody>
</table>

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions

Variables ordered by absolute size of correlation within function.

* Largest absolute correlation between each variable and any discriminant function

Nearly all of the variance of the model is explained by the first three discriminant functions. However, the Wilks’ Lambda values indicate that all six variables are useful within the model. The association between the discriminant scores and the towns is strongly correlated, as evidenced by almost all of the values all equaling 1. As in 1990, the very low value of the Wilks’ Lambda indicates greater discriminatory ability of the function. The incorporated chi-square statistic tests the extent that the means of the functions used are equal across the towns investigated. The small significance value indicates that the discriminant function does better than chance at separating the towns.
### Eigenvalues

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<th>Function</th>
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<th>Cumulative %</th>
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<td>149.398</td>
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*a* First 6 canonical discriminant functions were used in the analysis.

### Wilks' Lambda

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
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<tr>
<td>1 through 6</td>
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<td>2214.172</td>
<td>132</td>
<td>.000</td>
</tr>
<tr>
<td>2 through 6</td>
<td>.000</td>
<td>1679.120</td>
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<td>.000</td>
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<td>3 through 6</td>
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<td>1225.328</td>
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<td>.000</td>
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<td>4 through 6</td>
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<td>5 through 6</td>
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<td>.007</td>
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Finally, in 2004, (see Figure 5.25 below) the last year of the study period, statistically, there is still a highly significant difference between the examined towns across a combination (i.e. discriminant functions) of the following variables; Guild change, Resource abundance, Dominance index, FisherALPHA index, and Resource change. These variables (illustrated in the structure matrix below) again provide insights into the varied composition of the general, ecological, and selective environments across each town. They demonstrate a set of variables rarely analysed vis-à-vis the determination of environmental heterogeneity. Across the life of this study, there can be no doubt that significant differences have existed between each town within this study.
Figure 5.25 – Inter-Town Variance 2004

Canonical Discriminant Functions

Structure Matrix

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<tr>
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<td>-.057</td>
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<tr>
<td>Dominance</td>
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<tr>
<td>FisherALPHA</td>
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<td>-.207</td>
<td>.505</td>
<td>.095</td>
<td>.832*</td>
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</table>

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions
Variables ordered by absolute size of correlation within function.

*: Largest absolute correlation between each variable and any discriminant function
From the findings presented above for the years 1975, 1990, and 2004, we are able to discern seven variables that collectively combined in various ways to explain the degree of environmental heterogeneity present in the North Yorkshire / East Riding region. As such, we have areas of focus that link directly to an understanding of the composition of the external, ecological, and selective environments.

The variable *Guild Change* is the increase or decrease in guild size across a three year average. It provides an indicator as to the relative capacity of a town to increase in size vis-à-vis the total number of sub-populations present. Therefore, it is an indicator of heterogeneity within the ecological environment. Also related to the ecological environment is the variable *resource abundance*. *Resource Abundance* is the average
amount consumers spend on take away and restaurant food divided by the number of firms across in each town over a three year average. Therefore, Resource Change is the percentage change in resource abundance across a three year period.

Alternatively, the diversity indices used (i.e. Dominance, Margalef, and FisherALPHA) provide insights into the degree of guild diversity in each town, therefore identifying how the external environment experienced by firms operating in each town is uniquely different. Lastly, Exit Rate connects us to the selective environment by revealing the average rate at which firms exit the guild in each town across a three year period. In summary, identifying specific variables that relate to sources of energy and constraint within each town provide us with the capacity to determine the basis upon which harmful and non-harmful relations may occur and persist (i.e. postulates 1, 2 and 3).

5.3.5 Postulate 5

The external environment experienced by one or more independent firms in the pizza industry is an identifiable feature that can be reconciled to their existence.

The findings arising from postulate 4 suggest that any attempt to aggregate the data to determine firm survival will mostly likely conflate possible results in a misleading way due to the lack of symmetry between the linear time of the study and the ecological time found within the study that varies from town to town. That is, aggregated analysis exposes the researcher to committing an ecological fallacy (Babbie, 2003) whereby inference about individual cases is drawn from a broader group to which they belong. As
such, it is important to test both the similarity of towns in an alternative (and accepted manner) and to determine the degree to which variance is averaged away through aggregation of the data.

The use of Canonical Discriminant Analysis has revealed significant inter-town differences related to spatial heterogeneity that has existed throughout the study period. To further explore (and confirm) the extent of such difference, Pianka’s (1973) Community Similarity Index\(^{36}\) was used to measure the extent to which the towns within the guild differ, and to also compare any such difference across time (see Appendix 14 for complete Community Structure Matrix’s). Consistent with the results of the Canonical Discriminant Regression, Community Similarity values for the North Yorkshire / East Riding guild are low and relatively consistent across time. At the beginning of the study time, the value is lowest \((X = .39, S.E. = .015, s = .248, N = 253)\), increasing by the studies mid point (i.e. 1990) \((X = .47, S.E. = .012, s = .187, N = 253)\) and essentially holding that degree of similarity at the end of the study period \((X = .48, S.E. = .012, s = .185, N = 253)\).

Given the (confirmed) degree of dissimilarity observed across towns through time, it perhaps would be expected that the nature of survival of firms on the North Yorkshire / East Riding Guild would vary significantly. However, Figure 5.26 over the page illustrates the range of survival outcomes across all 23 towns for 5yr, 10yr and 15yr time

---

\(^{36}\) Pianka’s (1973) Community Similarity Index is simply \(X/N\), where \(X\) is the number of sub-populations common to two towns and \(N\) is the total number of sub-populations occurring in either; thus community similarity equals 1 when two towns are identical, and 0 when they share no sub-populations.
periods, suggesting that the pizza sub-population appears *not* to hold any obvious survival advantage vis-à-vis the other main sub-populations.

**Figure 5.26 – Overall and Sub-Population Survival (a)**

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<th>10yrs</th>
<th>15yrs</th>
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<td><strong>All Firms</strong></td>
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<td>64%</td>
<td>51%</td>
</tr>
<tr>
<td><strong>All Pizza</strong></td>
<td>75%</td>
<td>64%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Chinese</strong></td>
<td>99%</td>
<td>68%</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Indian</strong></td>
<td>97%</td>
<td>57%</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Fish &amp; Chips</strong></td>
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<td>68%</td>
<td>54%</td>
</tr>
</tbody>
</table>

However, as illustrated in Figure 5.27 over the page, when the individual survival means for each of the 23 towns are compared for 10yr and 15yr time periods, a wide degree of variance between towns is demonstrated. Thus, it is confirmed that in addition to real and measurable differences between each town (and therefore differences in the local environments experienced), survival outcomes for all of the main sub-populations vary quite considerably across both time and space. As such, it can be concluded with a high degree of confidence that the external environment experienced by pizza firms in the North Yorkshire / East Riding region is unique and reconcilable to their operations.
5.3.6 Postulate 6

The ecological environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.

Clearly, as demonstrated in postulate 4 and 5, there are significant inter-town differences related to spatial heterogeneity. Therefore, it should be reasonable to discern identifiable elements of the ecological environment that reflect such variance also. The primary component of the ecological environment is the availability of resources through which consumer income is possible. By determining the potential level of resource availability within each town across the period of the study we can test this postulate. To do so, I have measured the total resource availability (i.e. average consumer spend per firm) for each year in each of the 23 towns over the period of study. Thus, as illustrated in Appendix 15 we can observe the difference in potential resource availability across both time and space. An accompanying assumption to this process being that the level of expenditure of take-away and restaurant food (as determined in Figure 5.6) is relatively similar in total, but most likely different in its distribution across the various sub-populations. Using a Paired Samples T-Test to compare the potential resource availability
across both time and space, the findings were very strongly in support of postulate 6. As illustrated in Figure 5.28, 75% of all comparisons were significantly different (at .05 or better). Those comparisons that were deemed not to be significantly different are highlighted in yellow. Thus it can be conclude with confidence that the primary component of the ecological environment does indeed vary in an identifiable and important way across both time and space.

Figure 5.28 – Comparison of Potential Resource Availability

A specific reason for such difference between the towns being the rate of growth occurring within each separate guild as previously demonstrated in Figure 5.12. In summary, the towns differ in a way that would logically be expected to impact their chances of survival.
5.3.7 Postulate 7

The selective environment experienced by one or more independent firms across time and space in the pizza industry is an identifiable feature that can be reconciled to their survival/demise.

At the aggregated level, it would seem that independent pizza firms held a survival advantage over all other firms for 5 and 10 year timeframes (i.e. 81% & 72% compared to 60% and 44% respectively). Putting aside the issue of temporal variations, the nature of survival outcomes for local pizza shops is illustrated below in Figure 5.29.

**Figure 5.29 – 5 and 10 Year Survival Comparisons**

<table>
<thead>
<tr>
<th>Town</th>
<th>5 Yr Survival</th>
<th>Town</th>
<th>10 Yr Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thorne i</td>
<td>100%</td>
<td>Helmsley i</td>
<td>n/a</td>
</tr>
<tr>
<td>Stamford Bridge c</td>
<td>100%</td>
<td>Mkt Weighton</td>
<td>n/a</td>
</tr>
<tr>
<td>Howden i</td>
<td>100%</td>
<td>Easingwold c</td>
<td>n/a</td>
</tr>
<tr>
<td>Filey c</td>
<td>100%</td>
<td>Thorne i</td>
<td>100%</td>
</tr>
<tr>
<td>Malton i</td>
<td>100%</td>
<td>Stamford Bridge c</td>
<td>100%</td>
</tr>
<tr>
<td>Boroughbridge i</td>
<td>100%</td>
<td>Howden i</td>
<td>100%</td>
</tr>
<tr>
<td>Driffield i</td>
<td>100%</td>
<td>Filey c</td>
<td>100%</td>
</tr>
<tr>
<td>Helmsley i</td>
<td>100%</td>
<td>Malton i</td>
<td>100%</td>
</tr>
<tr>
<td>Hornsea i</td>
<td>100%</td>
<td>Boroughbridge i</td>
<td>100%</td>
</tr>
<tr>
<td>Pickering i</td>
<td>100%</td>
<td>Driffield i</td>
<td>100%</td>
</tr>
<tr>
<td>Mkt Weighton i</td>
<td>100%</td>
<td>Hornsea i</td>
<td>100%</td>
</tr>
<tr>
<td>Scarborough</td>
<td>95%</td>
<td>Pickering i</td>
<td>100%</td>
</tr>
<tr>
<td>Selby c</td>
<td>86%</td>
<td>Scarborough</td>
<td>95%</td>
</tr>
<tr>
<td>Bridlington</td>
<td>82%</td>
<td>Knaresborough c</td>
<td>75%</td>
</tr>
<tr>
<td>York</td>
<td>82%</td>
<td>Harrogate</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td>81%</td>
<td><strong>Overall</strong></td>
<td>72%</td>
</tr>
<tr>
<td>Harrogate</td>
<td>79%</td>
<td>Selby c</td>
<td>69%</td>
</tr>
<tr>
<td>Knaresborough</td>
<td>75%</td>
<td>York</td>
<td>65%</td>
</tr>
<tr>
<td>Goole i</td>
<td>60%</td>
<td>Goole i</td>
<td>60%</td>
</tr>
<tr>
<td>Ripon c</td>
<td>50%</td>
<td>Bridlington</td>
<td>55%</td>
</tr>
<tr>
<td>Easingwold c</td>
<td>50%</td>
<td>Pocklington i</td>
<td>50%</td>
</tr>
<tr>
<td>Pocklington i</td>
<td>50%</td>
<td>Ripon c</td>
<td>33%</td>
</tr>
<tr>
<td>Withernsea c</td>
<td>0%</td>
<td>Withernsea c</td>
<td>0%</td>
</tr>
</tbody>
</table>
An interesting issue of note is the influence of the larger cities on the aggregated average survival. Both Harrogate and York potentially bias the sample due to their disproportionate size. The towns in blue all represent towns where pizza firms clearly exceed the regional average survival for pizza firms. Alternatively, the towns in red all represent towns where pizza firms achieve relatively poor survival outcomes vis-à-vis the regional average. What is clear is that firms scattered across the region experience a range of selective environments from benign to very difficult. However, again it is those pizza firms located in isolated towns (identified with an ‘i’ in Figure 5.29) that appear most likely to benefit from a benign environment whereas those located in connected towns (identified with an ‘c’) would appear to have a much more difficult challenge in surviving. To further highlight the survival outcomes associated across both isolated and connected towns, we can observe in Figure 5.30 below the survival outcomes across large, isolated and connected towns accounting for the degree of advertising by local (new entrant) pizzerias.

**Figure 5.30 – Pizza Survival by Town Type and Advertising Spend**
Clearly, those pizzerias located in isolated towns that have never used paid advertising in the Yellow Pages have gained a survival advantage over those that have and those located in connected or large towns. Alternatively, in connected towns, pizzerias that never placed paid advertisements in the Yellow Pages achieved worse survival outcomes than those that did frequently and/or occasionally. The apparent similarity of survival outcomes achieved by pizzerias located in large towns is distorted by the outcomes of those firms located in Scarborough where overall pizza survival is extremely high. However, as illustrated in Figure 5.31 below, the superior survival of pizzerias in isolated towns (vis-à-vis advertising spend) is demonstrated when the other major sub-populations are also accounted for. The vertical density of ‘dots’ in Figure 5.31 (over the page) indicate the volume of individual advertisers and the horizontal spread of the ‘dots’ indicate the variance between low levels of individual advertisers (on the left) and heavier advertisers (towards the right).
Clearly, pizzerias located in isolated towns hold a survival advantage (68% compared to 58%, 20% and 53% for Fish and Chips, Indian, and Asian) over the other main sub-populations. The degree of advertising is indicated by the columns in each square. As per the formula (previously) discussed for postulate 2, each small advertisement was allocated a weighting of ‘2’, each medium advertisement a weighting of ‘4’, and each large advertisement a weighting of ‘6’. In Figure 5.31 above, ‘1’ indicates a listing in the Yellow Pages, but no paid adverts. The poorer relative survival of pizzerias in connected and large towns is also demonstrated relative to the other major sub-populations. What is
demonstrated in Figure 5.31 is that not only do pizzerias situated in different towns face different selection pressures, but so it would seem do Indian and Asian food providers. In summary, it would seem that the differential survival of local pizza firms within the 23 towns investigated relates to an acceptance that within each town, different types of selection pressures will combine to impact firms on a town by town basis.

5.3.8 Postulate 8

Whilst a group of independent firms in the pizza industry may share a general environment, each individual firm may experience different ecological and/or selective environments.

There can be little doubt (as evidenced by the above discussion) that seemingly similar local pizza firms may in fact actually experience fundamentally different ecological and/or selective environments. The evidence presented related to postulates 1 through to 7 confirm the presence of resource partitioning and most likely facilitation. These findings are consistent with those observed in Australia where the owners of pizzerias located nearby to each other often noted different assessment of the conditions they encountered. Thus far a myriad of complex (yet interrelated) factors have been discussed that would clearly contribute to firms experiencing different selective and/or ecological environments. Over the course of the study period, the abundance (or increase) in other sub-populations (see Figure 5.5) has occurred in a manner that has not been predictable from one town to the next. Whilst the demographic features of the region appear relatively similar, the underlying composition and growth trajectory of each individual guild is unique to all others in terms of local diversity (see Figure 2.22), resource
availability (see Figure 5.28) and therefore in the frequency and/or dominance of any particular sub-population.

As a result, local firms (within the same town) increasingly have altered their positioning to be seen as alternatives to high class restaurants, family oriented restaurants, take away generalists offering an alternative to the established Fish and Chip shops, or home delivery specialists who provide little in shop service. In summary, whilst local pizza providers may operate in an external environment that is similar, the extent to which they share common selective and/or ecological environments is largely determined by the coaction relations between other local pizza providers. Given that many are located in entirely different suburbs, provide entirely different services and/or face different coaction relations with other guild members, it is quite likely that they will experience different selective and/or ecological environments.

5.3.9 Postulate 9

The natural development of franchised pizza firms in the pizza industry will significantly alter the nature of the ecological and selective environments experienced by other associated firms.

A significant challenge in investigating this issue was 1) the inability of pizza shop owners to speak fluent English, and 2) the lack of televised mainstream advertising received inside the pizzerias. Unlike Australia, the operators were not as easy to communicate with and used their television to capture closed-circuit security images; thereby potentially not being as aware of any possible relationship between the timing of
franchised advertising and demand for their pizzas. However, those issues aside, observations of the North Yorkshire landscape lend much weight to the expectation that franchised pizza firms have altered the ecological and selective firms experienced by other local pizza firms. The primary reason for this is two-fold. Firstly, both Pizza Hut and Dominos represent advanced global franchise operations that have well developed processes to ensure successful market development and market share capture. Secondly, as part of enormous UK operations, both frequently use television advertising to effectively and efficiently communicate their marketing messages to a specific region (see Appendix 16). Dominos have developed very targeted campaigns in conjunction with direct sponsorship of the Simpson’s TV show that have lead to a phenomenon know as the Simpson’s Rush (when a surge of delivery orders are received during the airing of the show). Using interactive technologies, Dominos are experiencing rapid growth of interactive television ordering (see appendix 17). Just as a large oak tree growing alone in a field of daisies casts a large and ecologically significant shadow, so it would seem do the operations of the franchised pizza firms. In comparison to all of the other main guild members, they have a size and power that is not observed in the Indian, Chinese and/or Fish and Chips sub-populations.

The nature of such influence can be illustrated by considering the development of Pizza Hut and Dominos. Returning to the notion of autogenic engineering (Jones et al., 1994) whereby entities alter the environment around themselves through their natural development, Pizza Hut’s emergence in the region parallels that observed in Tasmania by Pizza Hut as well. As illustrated in Figure 5.18 previously, the entry into the region by
Pizza Hut coincides with a) a reduction in advertising by local pizzerias in large towns and b) an increase connected towns, the same pattern observed in the Australian context. It would appear logical to conclude that Pizza Hut’s presence and highly visible advertising increased the legitimacy of pizza as a genuine food choice. In contrast to existing (and future) local pizzerias, the Pizza Hut business model is based upon high volumes and low margins. Put simply, each Pizza Hut operation must achieve high levels of turnover in order to survive.

**Figure 5.32 – Entry of Franchised Firms**

As a consequence, the primary demand for pizza (relative to the offerings of other sub-populations) benefits all other local pizzerias exposed to the same advertising signal, as illustrated in Figure 5.32 above. In the six year period immediately after the entry of Pizza Hut into Harrogate, there are no recorded exits from the population. Rather, there is a doubling of the population up until the onset of the 1989/1991 recession. This pattern is repeated across the other large towns. The arrival of Dominos would seem to have
impacted the market in several different ways. First, occupying a niche similar to Pizza Hut, Dominos positioned themselves not as an affordable restaurant, but rather as a delivery / pick-up operation. As a result, whilst they increased primary demand for take-out pizza, they essentially competed against local delivery / pick-up pizzerias and not against Pizza Hut. This first phase of their development in the region is in line with their past operations elsewhere, and thus could be considered autogenic engineering.

However, the aggressive marketing approach by Dominos then led to a form of allogenic engineering (Jones et al., 1994) through which they altered the nature of demand in a new an innovative manner. Pioneering interactive technologies that enabled consumers to use their TV remote control (with pizza preferences, delivery address and credit card details stored) to order pizzas whilst watching the Simpson’s TV show (i.e. the Simpson’s rush). In doing so, Dominos changed not only their local environment, but also the local environs across the 21 towns they had no physical presence in. Evidence of the impact and logic of this approach is illustrated in the comments below.

Stephen Helmsley, the chief executive [of Dominos], said the company's record sales performance reflected the success of the Channel 4 adverts, which followed Domino's sponsorship of The Simpsons on Sky. "Every time we ran national adverts our sales increased. In turn, every time our sales increased, the size of our national TV advertising fund increases," Mr Hemsley said. Total sales for the fourth quarter to 31 December grew by 29.4 per cent to £98m, helping average weekly sales per outlet to increase by 19.1 per cent to £8,500. Domino's … plans to double its stores to 500 by 2006, creating 5,000 jobs. Mr Hemsley said the focus on accelerating the roll out was necessary because although the ads went out to the whole of the UK's population, only 35 per cent lived within range of a Domino's branch (Mesure, 2002).
Based on the 2001 census population figures, across all the entire region only 23% of the population live within range of a Domino’s outlet, and across the 23 towns investigated the figure is 46%. Perhaps more importantly, in 2001, 57.3% of the local firms investigated in this study operated outside the delivery/service zones of Dominos. Industry opinion provides a consensus that Domino’s advertising success is beyond question and they themselves also recognize the opportunity to expand into areas where their advertising is present but of no current value to Domino’s without a physical presence. In summary, there is no reason to assume that the natural development of the franchised pizza firms has not significantly shaped the ecological and selective environments experienced by firms operating within or beyond their place of operation.

5.3.10 Postulate 10

Evidence of niche construction and/or ecosystem engineering in the pizza industry should highlight which specific firms have (and have not) benefited due to change in their respective ecological and selective environments.

It is a significant challenge to determine the degree to which pizza firms operating in different locations and at different times survive better or worse in comparison to each other and/or other sub-populations. A specific challenge is to reconcile the positive or negative contribution made by advertising to overall firm survival. SPSS Survival Analysis provides essentially a ‘gross’ survival outcome. Whilst data can be stratified into sub-sets that separate advertisers from non-advertisers, the challenge remains to determine ‘net’ survival outcomes that are adjusted for advertising. To address this challenge an Advertising Efficiency Index has be devised to allow a net survival outcome.
to be considered. Expressed as $S \times (1 - DF^a)$, where $S$ is the rate of survival generated from SPSS Survival Analysis, and $DF^a$ is the degree and frequency of advertising observed (calculated as previously explained). Figure 5.33 below presents the outcome of adjusting the survival of newentrant pizza firms operating in different locations (a) and in comparison to the other main sub-populations (b), (c) and (d) across different locations.

Figure 5.33 – ‘Net’ Survival by Town Type and Sub-Populations

What is evident in (a) is that once the actual cost of advertising is applied to base survival outcomes generated from SPSS Survival Analysis, the differences between isolated and
connected towns are amplified. What is also highlighted is the potential influence of the survival outcomes occurring in large towns. Clearly operating at the level of aggregated data would eliminate the extreme ‘net’ survival of pizza shops in connected and isolated towns.

Conversely, the relatively close comparative survival outcomes between the main sub-populations operating in large towns (b) become separated once we account for the cost of advertising. As illustrated in Figure 5.31, pizzerias (and Indian firms) in large towns expend significantly more resources to attract business.

Alternatively, in connected towns (c) the real cost of survival for pizzerias is clearly evident. ‘Net’ survival calculations favor fish & chip shops who expend very little resources in maintaining their market position. Whereas, in the isolated towns (d), the ‘net’ survival curve for pizzerias is straighter only lowered by actual survival outcomes and not compounded by the actual cost of advertising.
From the above discussion we can conclude that whatever benefit is bestowed upon pizzerias in the region is largely restricted to isolated towns. It would seem that the challenge of retaining custom from locals living in connected towns comes at a cost. One respondent in Knaresborough stated that it was a case of dammed if you do, dammed if you don’t. If firms in connected towns don’t advertise they lose trade to the larger nearby towns. If they advertise, it creates a competitive rivalry within the guild that must be paid for by achieving even higher cash flow turnover.

Conversely, examination of local newspapers and business directories in isolated towns failed to find any level of consistent or meaningful advertising towards local consumers by the guild members. There was a sense that the locals are in fact captive audiences that do not require unnecessary communication to stimulate custom. Given that the isolated towns contain considerably smaller populations, word-of-mouth advertising is noted by the local guild members as the best investment to be made.
In summary, it can be concluded that all pizzerias should gain some form of benefit from the advertising behaviors of Pizza Hut and Dominos vis-à-vis increased primary demand for pizza. That said, clearly the net gain achieved is determined by the nature of resource partitioning (or isolation) across the landscape. Quality pizza restaurants (especially in large towns) are unlikely to compete directly with Pizza Hut and/or Dominos and/or local take-away/delivery operators; therefore, they should gain regardless of location. Local pizzerias would seem to gain no realizable advantage if they are located in connected towns, but stand to gain a considerable survival advantage if located in isolated towns. The key issue would seem to be the extent to which the franchised firms’ advertising signal is 1) received into a competitive or non-competitive local environment and/or 2) is blocked by the clutter of other signaling that potentially reduced the clarity of the ‘pizza’ signal.

5.3.11 Postulate 11

Evidence of niche construction and/or ecosystem engineering in the pizza industry may indicate the possibility that certain populations and/or firms should inherit a survival advantage relative to other sub-populations and/or firms across time and space.

The assumption that the advertising of franchised pizza firms will alter the local environs of independent pizzerias, should be supported by evidence of new entrants inheriting a survival advantage relative to earlier entrants and any other local guild members. Crosstabulations between the main sub-populations and survival/non-survival for three periods (i.e. pre franchise, after Pizza Hut’s entry but before Domino’s entry, and after Domino’s entry) were used to consider this issue. Figure 5.34 (over the page) illustrates
the percentage of new entrants (across each main sub-population) that entered during each of the three periods that survived to the last year of study period. At the regional level (a) it can be observed that Chinese food providers and pizzerias had the highest level of new entrant survival for each period relative to Fish & Chip, Indian, and all other food providers. Again, it is noticeable that the nature of survival occurring in (b) large towns greatly influences the nature of regional survival outcomes.

**Figure 5.34 – New Entrant Survival by Town Type and Sub-Populations**

Greater variance in new entrant survival is observable in (c) connected and (d) isolated towns. What the above graphical figures indicate is that in connected towns the probability of new pizza entrants surviving across the study period is less than that
occurring in isolated and large towns, and it is decreasing over time. Alternatively, in the isolated towns local pizzerias experience (relative to all other sub-populations) a higher probability of survival (relative to large and connected towns) at an increasing rate. Figure 5.35 below highlights the difference between isolated, connected and large towns.

**Figure 5.35 – New Entrant Pizza Survival by Town Type**

What can be inferred from this simple analysis is that new pizza entrants in isolated towns appear to experience an ecological environment that has 1) been shaped by the constant advertising of the franchised pizza firms and 2) evolved towards positive/neutral coactions. Thus the potential negative impact of the selective environment would seem to have been negated. Alternatively, new pizza entrants in connected towns appear to struggle to survive (relative to the other sub-populations) due to 1) the apparent lack of influence of the franchised pizza firms’ advertising and 2) a higher level of negative/neutral coactions. Therefore, there is less available custom from their ecological environment, but greater threats from the selective environment they experience.
In summary, it can be reasonable concluded that it is indeed quite likely that new pizza entrants entering isolated towns gain a survival advantage that is 1) inherited from the past and current behaviors of other local guild members and 2) transferred to the town by the conventional marketing practices of the franchised pizza firms. Conversely, the opposite would appear likely for those new entrants entering connected towns, who would seem to inherit a survival disadvantage.

5.3.12 Postulate 12

In pizza markets featuring both franchised and independent firms, an invisible force capable of altering both selective and ecological environments is plausible and its presence would be determined by the interaction of franchised and independent pizza firms occurring across time and space.

Discussions with restaurateurs, local consumers, and service providers (e.g. taxi drivers) confirmed the presence of an external stimulus (i.e. an invisible force) that had the potential to increase the demand for pizza within and beyond the delivery zone of the franchised operators. As illustrated below in Figure 5.36 over the page, not only did Domino’s integrate their signal into one of the most popular sitcom satires (a), but they benefited from the relationship in such a significant manner that their brand recognition (Harris and Dennis, 2002) and profitability was increased whilst actual advertising spending was reduced (Makin, 2002), gains attributed to the emerging Simpson’s Rush (b).
As previously noted, there is little doubt that the initial advertising of Pizza Hut and subsequent advertising of Domino’s has influenced the demand for pizza in a generalized way that has benefited other local pizzerias. Consistent with the initial observations from the Australian context, the power of the franchised pizza firms’ advertising far exceeds
that other local pizzerias and close by sub-populations. It would seem logical that the close relationship between Domino’s and the Simpsons TV show has delivered benefits to two closely related target markets. Nevertheless, the potential benefits derivable from the constant presence of this signal would seem to be offset by the presence of competitive coactions between local guild members (as previously discussed).

5.3.13 Postulate 13

The presence of an invisible force will have identifiable transfactual conditions that relate to its tendencies to positively influence independent pizza firm survival.

The most insightful comments made by local consumers related to their actual consumption practices. Whereas those consumers located in connected towns acknowledged the likelihood that their potential spend (over any given period) on restaurant and take-way food would frequently leak into food providers located in large towns, the same observation was not made for consumers located in isolated towns. This notion of possible leakage was discussed with several food providers, with confirmation that it was a serious concern for those food providers located in connected towns. Thus (as noted and discussed in Postulate 10), the variability in 1) potential resource availability, and 2) resource leakage would seem to align to an escalation of advertising to retain custom from which negative coactions seemingly arise.

A logical conclusion to emerge from observations of each town, the individual levels of advertising and (previously) noted survival rates across each guild is that specific conditions can be ascribed to the presence of Transferred Demand. Firstly, the stability
(or maintenance) of potential resource availability reduces the pressure on local food providers to advertise, especially where there is little resource leakage. In the absence of multiple competing local signals (attempting to own customers), the clarity of the signal emitted from the franchised pizza firms is essentially amplified, thus stimulating demand for pizza and any other closely related substitute (e.g. Chinese or Indian). Therefore, the observed survival advantage of pizzerias in isolated towns would seem related to the efficiency of their advertising practices relative to those of other pizzerias located in connected and large towns. Alternatively, there was no evidence found to support the notion that the signal emitted by the franchised pizza firms was received by local consumers in connected towns with anything approaching the clarity of that occurring in the isolated towns. In summary, the proximity of each town to other towns is likely to reduce/increase the likelihood of leakage of potential consumer resources. Leakage of resources was observed to be associated with increased advertising that resulted in the accumulation of multiple signals that competed for receivers with the franchised pizza firms’ signals. Hence, there is support for Postulate 13.

5.3.14 Postulate 14

The contingent conditions related to the tendencies of any such invisible force are related to and explainable by an understanding of the variance occurring in the selective and ecological environments experienced by individual pizza firms.

As noted above, the potential for leakage of potential resources is related to a likely increase in negative coactions due to increased advertising. Given that there is no observed linear association between the level of advertising and firm survival in either large, connected, and isolated towns for any of the guild members, those local pizzerias
advertising in connected towns are likely to decrease their operating efficiency. However, they are faced with a catch twenty-two situation where not advertising does not increase their survival prospects either.

Alternatively, the likely absence of a cluttered signaling environment in the isolated towns enables the signal from the franchised pizza firms to ‘fertilize’ the environment and stimulate local demand for pizza (and other close substitutes). In summary, the nature of selection occurring against local pizzerias located in connected towns is a function of their town’s proximity to other towns which in turn is directly related to the prevailing selective environment experienced by food providers in connected towns. Likewise, the benign nature of the selective environment in isolated towns (post the commencement of signaling by franchised pizza firms) corresponds to the emergence of a ‘fertilized’ ecological environment that complements the stability of local resources, again a function of the proximity of each town vis-à-vis the perceived preferences of local consumers. In conclusion, there is support for Postulate 14.

5.3.15 Postulate 15

The degree to which an invisible force capable of influencing independent firm survival in the pizza industry will be directly related to (or explainable by an understanding of) the selective and ecological environments experienced by individual firms.

Of particular interest amongst the findings is the observation that firm survival observed at different levels differs (i.e. regional, individual town, and across types of towns) vary dramatically. The above discussion has demonstrated both the varied survival outcomes
across scale and location as well as the (statistically) significant differences in environs experienced. There can be little doubt that the presence of an invisible force will logically form an active part of the ecological environment in isolated towns. In connected towns, the observations made by the various persons consulted leads one to conclude that it also forms an inactive (or suppressed) part of the ecological environment in connected towns. Likewise, differences in the nature of the selective environment experienced by local pizzerias are traceable to the forms of coaction occurring between guild members. Coactions that can only be observed with accuracy at the level of the town. In summary, there is support for Postulate 15.

5.3.16 Postulate 16

Differential independent firm survival in the pizza industry will therefore be related to differences observed in firm type and location.

Observing the local pizzerias at the level of the individual town exposes the researcher to significant variations in operating form (or structure), marketplace positioning, and exposure to a broad range of coactions. Once the breadth of such diversity is acknowledged, it is nigh on impossible to reassemble the pizzerias back into aggregated categories from which to analyse. To do so would be to retreat from an ecological approach to understanding firm survival. For example, in the town of Malton, two pizzerias operate on the high street. One is positioned as a restaurant, the other as an up-market take-away/delivery provider. In this general area other Chinese, Indian, and Fish & Chip operators who all provide restaurant level service. Less than 2 kilometers away, another two pizzerias operate side by side with other food producers, all catering to price
conscious consumers interested in take-away and delivery services. It is apparent the four pizzerias essentially appeal to separate target markets, and/or are sufficiently distanced from each other, and/or provide a range of diverse services that differentiate each other to ensure survival.

In the larger town of Scarborough, local pizzerias combine with Fish & Chip shops to dominate guild composition. This is due to a lack of direct competition between franchised and local pizzerias and the sustainability (i.e. scalability) of the business model commonly employed by Fish & Chip shop owners. Conversely, in the connected town of Ripon, local preferences for Indian food, the retention of the traditional Fish & Chip shop have restricted serious access by pizzerias and Chinese firms to the local guild. In summary, it was observed that any one type of pizzeria (e.g. take-away, take-away/delivery or restaurant) may hold a survival advantage not based upon the broad evolution of organizational form, but on the fit between the specific entity and its specific environment. That is, any developed independent variables related to firm survival would be town specific, not regional or industry specific.

This observation is consistent with the theory of succession (Warming, 1909; Clements, 1916) being applied to a highly fragmented environment where each towns is determined to have developed via different ecological process. Put simply, the observed levels of spatial heterogeneity is not reconcilable at higher levels of scale and therefore explanation of firm survival are explainable and based upon local processes occurring independently in individual towns. In summary, researcher observations provide
compelling evidence that explanations of differential pizza firm survival in the study region are not reducible to a specific independent variable and must be explained by accounting for local variability on a town by town basis.

5.3.17 Postulate 17

Collapsing firms into specialists and generalists will not give rise to as satisfactory explanation of the differential survival outcomes of similar types of firms operating in the restaurant and fast food guild in the North Yorkshire / East Riding region as compared to that developed to explain the assumed presence of Transferred Demand.

The resource partitioning theory of Carroll (1985) predicts that as markets mature and become more concentrated generalists gain a survival advantage by defeating or acquiring other generalists who also seek the market’s middle ground. As this process occurs small niches open up that smaller specialists exploit. This scenario was not observed to occur in the Australian context, nor the UK context. As previously noted, the extreme limitations developed within Carroll’s notion of resource partitioning render the concept ineffective within the context on this investigation. There are several reasons that such an approach cannot be applied to investigating the survival of pizzerias in this study.

First, there are no large generalists in the study to observe. The larger organizations (e.g. Pizza Hut, Dominos and Pizza Express) all scale the environment on a town by town basis (despite access to considerable group resources) as specialists, not generalists. Unlike the predictions (see Aldrich, 1999) that not all would survive, they do, servicing a distinct (narrow, yet large) set of consumers without much evidence of overlap observed.
Second, whilst more specialist pizzerias are observed in the larger towns to serve a narrow customer type, it is by and large generalist pizzerias that service a broader range of customer types in the small connected and isolated towns. The earlier predictions of Kangas and Risser (1979) that within smaller towns’ firm survival would be explained by a proclivity towards operating as a generalist are confirmed. They felt that if the resource base was fluctuating (i.e. consumer preferences are changeable) then operating in a small town as a specialist would be too risky. As evidenced in Figure 5.37 below, the typical pizzeria is a true generalist in that it serves a variety of food types (e.g. pizza, curries, kebabs, burgers, fried chicken etc) to customers who can choose to dine-in, pick-up or receive free delivery.

Figure 5.37 – A Typical Generalist Pizzeria
Third, classification of specialists and generalists across the life course of a particular firm and/or industry is challenging. For example, firms observed to be operating as specialists are also observed to have previously advertised in a manner that suggests a generalist style of operation, and visa-versa. As the environment has changed (e.g. the advent of home delivery or the increased patronage of dine-in establishments) across the period of the study, many firms have adapted to those trends in a variety of ways. Given the inherent variability of organizational forms (with a potential to fluctuate), attempting to organise firms arbitrarily into specialist and generalist categories is unwise. Such diversity of form across different environments is easily explainable by reference to the established theory of resource partitioning (e.g. Schoener, 1974) without having to try and satisfy the precise requirements of Carroll’s (1985) interpretation of the process. In summary, the components of the proposed model of Transferred Demand would appear to offer more explanatory power than any attempt to define firms in the sample as specialists or generalists who should conform to the predictive assumptions of the resource partitioning model developed within the extant organizational studies literature.

5.4 Overview of the findings

Throughout this chapter, evidence from multiple sources, both quantitative and qualitative has been presented to 1) describe the region and industry investigated, and 2) confirm/disconfirm the postulates developed in chapter 3. Across all 17 postulates, sufficient support has been found to confirm the logical presence of each postulate in the proposed model of Transferred Demand (see Figure 5.38 below).
## Figure 5.38 – Summary of the Findings

<table>
<thead>
<tr>
<th>Postulate</th>
<th>Outcome</th>
<th>Type of Data</th>
<th>Research Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postulate 1</td>
<td>Strong confirmation that competition is explainable using observable factors.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT and Canonical Discriminant Analysis (CDA)</td>
</tr>
<tr>
<td>Postulate 2</td>
<td>Strong confirmation that competition and attempted customer acquisition linked.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT</td>
</tr>
<tr>
<td>Postulate 3</td>
<td>Confirmation that reduced advertising was related to the possibility of facilitation.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT, CDA, Community Similarity Index (CSI) and Survival Analysis</td>
</tr>
<tr>
<td>Postulate 4</td>
<td>Very strong confirmation of specific factors relating to the environs' composition.</td>
<td>Quantitative data used.</td>
<td>NCT, Diversity Indices and (CDA)</td>
</tr>
<tr>
<td>Postulate 5</td>
<td>Very strong confirmation the general environment of pizza firms is quite unique.</td>
<td>Quantitative data used.</td>
<td>NCT, Paired Samples T-Test</td>
</tr>
<tr>
<td>Postulate 6</td>
<td>Strong confirmation the ecological environment is identifiable and quite unique.</td>
<td>Quantitative data used.</td>
<td>NCT, Survival Analysis and Advertising Efficiency Index (AEI)</td>
</tr>
<tr>
<td>Postulate 7</td>
<td>Strong confirmation the selective environment is identifiable and quite unique.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>Abundance Ranking, Diversity Indices, and CDA</td>
</tr>
<tr>
<td>Postulate 8</td>
<td>Confirmation that franchised firms are niche constructors.</td>
<td>Qualitative data used.</td>
<td>NCT</td>
</tr>
<tr>
<td>Postulate 9</td>
<td>Confirmation that certain firms in certain towns seem to gain an advantage.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT, Survival Analysis and AEI</td>
</tr>
<tr>
<td>Postulate 10</td>
<td>Strong confirmation of the likelihood pizza firms may inherit a survival advantage.</td>
<td>Quantitative data used.</td>
<td>NCT, Survival Analysis</td>
</tr>
<tr>
<td>Postulate 11</td>
<td>Confirmation of an invisible force generated by advertising was present.</td>
<td>Qualitative data used.</td>
<td>NCT</td>
</tr>
<tr>
<td>Postulate 12</td>
<td>Confirmation of certain transfactual conditions that may influence firm survival.</td>
<td>Qualitative data used.</td>
<td>NCT</td>
</tr>
<tr>
<td>Postulate 13</td>
<td>Confirmation the conditions identified inform a logical discussion of firm survival.</td>
<td>Qualitative data used.</td>
<td>NCT</td>
</tr>
<tr>
<td>Postulate 14</td>
<td>Confirmation an invisible force contributes to a logical discussion of firm environs.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT, Survival Analysis, CDA and Correlations</td>
</tr>
<tr>
<td>Postulate 15</td>
<td>Strong confirmation of survival outcomes based on firm type &amp; location.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT, Survival Analysis and Diversity Indices</td>
</tr>
<tr>
<td>Postulate 16</td>
<td>Strong confirmation against categorizing firms as specialists or generalists.</td>
<td>Both Qualitative and Quantitative forms of data used.</td>
<td>NCT and Survival Analysis</td>
</tr>
</tbody>
</table>
Therefore, evidence has been presented that lends specific support to the underlying research proposition: *Transferred Demand is a force capable of altering both selective and ecological environments, thereby enhancing survival, and its influence is determined by the interaction between franchised and independent firms and elements of the general environment they share across time and space.*

The next and final chapter will explain the workings of the proposed model, uniting the components of the model of *Transferred Demand* that have been the focus of the postulate development. In doing so, additional insights from the broader ecological literature will be used to explain how the proposed model is claimed to have operated within the life course of this study.

### 5.5 Researcher reflection – the reality of social life …

*Whilst one cannot know every detail of the subject matter under investigation, I feel confident and relaxed about the reality I have experienced and reported within this chapter. The opportunity to visit the towns in this study, and interact with current guild members, local consumers and to observe their way of life has allowed me to rise to the challenge of Sears (1980, p. 223), who suggested that when the ecologist enters the study area, he or she “sees not merely what is there, but what is happening there”. In the true spirit of Glaser (2001), all was data. I have found myself at times lost in a sea of data, yet guided in a specific direction by an underlying current of ecological logic. I now feel both confident and capable of explaining how the process of Transferred Demand operates to aid firm survival.*
6.1 Introduction and overview

The purpose of this chapter is two fold. First, to explain, using the evidence presented in chapter 5 and the researcher’s subsequent musings of the operation and influence of Transferred Demand. As such, this chapter contributes a novel and unique explanation of firm survival to the organizational studies literature. Of particular interest is the contingent conditions argued to relate to the suppression and/or operation of Transferred Demand. Conditions that are argued to have been modified by the niche constructing activities of firms operating in the study’s geographical area of focus. Second, this chapter seeks to explain in detail the significant contribution this study makes to theory, method (vis-à-vis the domain of organizational studies) and policy/practice. However, before articulating a complex theoretical explanation of firm survival, a simplified account of firm survival is presented to assist the reader’s eventual comprehension as to how the components of the model of Transferred Demand unite and are bound together with expanded ecological arguments.

6.2 A simplified explanation of firm survival

In Figure 6.1 over the page, the potential presence of Transferred Demand (in the form of an advertising signal (i.e. a source of energy) emanating from franchised pizza operations) is assumed to exist, and its presence is illustrated with reference to isolated
and connected towns. In Isolated towns, a lack of local advertising intensity results in the town boundary effectively acting as a conduit through which the external signalling (i.e. advertising) of franchised pizza firms is amplified. The geographic location of the towns prevents the leakage of residential resources, which are essentially trapped within the towns’ boundaries by the personal costs of travelling out of town to acquire a product/service that is available within the town.

**Figure 6.1 – Transferred Demand**
The result, demand for pizza increases as residents are exposed to a clear advertising message for a product/service that is available locally (though not from the advertiser). As a result of the impact of the external (franchising) signal, there is less need (for local firms) to signal internally, and we witness very low levels of local advertising. When we factor in the higher levels of pizza survival in isolated towns (vis-à-vis connected and large towns) we can assume that the isolated pizza firms have obtained an increased level of foraging efficiency\(^{37}\), relative to other sub-populations.

In connected towns, the opposite process is seen to occur. As a result of the proximity of the towns to larger more diverse populations, and the increased mobility of residents, historically, it would seem that potential resources are lost from the towns as residents spend monies on food etc outside their town of residence. The result is a competitive environment within which higher levels of advertising across all sub-populations is more common. The nature of these coactions transforms the towns’ boundary, appearing to make it less permeable to the incoming signal from franchised pizza firms. Essentially, the degree of advertising locally dilutes the potential impact of the franchised signal. The outcome is the deflection of the signal. Demand for pizza is not increased, the need for local pizza firms (and other sub-populations) to advertise to retain local custom (and achieve competitive positioning) increases, and the pizza firms are locked into a competitive fight from which there typically are causalities. As the relative survival of pizza firms in connected towns decreases, it can be assumed that they have achieved lower foraging efficiency relative to other sub-populations.

\(^{37}\) Foraging efficiency defined as the amount of consumers attracted vis-à-vis the amount of effort used to attract customers.
Therefore, the conditions (for isolated and connected towns) favourable to *Transferred Demand* relate to 1) low levels of adversarial coactions, identifiable by low levels of advertising and 2) the retention of residential resources within the local town. Under such conditions, the franchiser’s signalling is clear and uninterrupted and can be captured and converted into revenues by the local firms. When both primary conditions are not met, the potential power of *Transferred Demand* is likely to be a lesser force relative to the presence of competitive interactions already occurring locally.

### 6.3 Deconstructing a simplified explanation of firm survival

The above simplified explanation of firm survival was made possible because of the manner in which the components and boundaries of the research task emerged from the preliminary discussion in chapter 2. Five specific areas of focus were identified from which the construction of a model of *Transferred Demand* was possible. The five areas of focus being; non-harmful relations, environmental heterogeneity, the ability of firms to alter their environment, the presence of an invisible energy, and lastly, firm survival. These five areas again will serve as dimensions through which discussion of the process of *Transferred Demand* can proceed. The aim of this next section is to blend various concepts/theories and/or research methods (drafted in from the broader ecological literature) into a coherent explanation of firm survival. Drawing upon the empirical evidence (presented in chapter 5), the simplified explanation will now be explained. The requirements of this approach preclude the structuring of such discussion across each
dimension individually (or sequentially). Rather, the collective relationship of the five dimensions (to and between each dimension) will be discussed in unison.

6.3.1 The importance of scale

In his seminal article of ecological scale, Wiens (1989, p. 385) asserted that to understand the nature of the drama occurring within the ecological theatre, we must view it from an appropriate scale. The explanation offered here for consideration has been crafted from an appreciation of how interpretation of the drama under investigation differs across different levels of scale. The following discussion will move from the level of the town, to the level of the region, and hover at the intermediate levels of the isolated and connected towns. Such movement ensures that this research opens itself to the opportunity of capturing a deeper level of understanding as to why firms are surviving in the North Yorkshire/East Riding pizza industry. Thus, this research avoids committing what Babbie (2005, p. 102) labels an ecological fallacy, whereby assumptions are made “that something learned about an ecological unit says something about the individuals making up that unit”. Further, the challenge of accounting for processes that are contextually determined (Danermark, 2002, p. 59) is essentially a scale dependent issue.

Returning to the simplified explanation of firm survival, the fundamental importance of scale reveals itself. At the regional (or aggregated) level, very little difference between the towns is observed across a range of demographic variables. Pizza survival is high relative to most other sub-populations, but consistent to the Australian context, differences are observable across towns based on location. Clearly, there is evidence of
differential survival outcomes that would logically seem related to environmental heterogeneity. Past studies (e.g. Carroll and Swaminathan, 1992) that operate at high (aggregated) levels typically invoke heterogeneity as a logical reason as to why specific (research) limitations must accompany their findings. However, because of the level of scale employed within this research, the obvious visibility of heterogeneity acts to motivate the researcher to uncover differences at a lower level, where any such heterogeneity is born.

At the level of the town, the researcher is immersed into a world of fluctuating variance where similarities are few and far between. To the best knowledge of the researcher, the notion of using a Community Similarity Index (Pianka, 1973) to determine the similarity of the towns within the region has never before been attempted. As noted in chapter five, an overall level of similarity (ranging from $\bar{X} = .39$ in 1975 to $\bar{X} = .48$ in 2004) demonstrates wide differences in community structure across the 23 towns investigated. Further, the use of Canonical Discriminant Analysis confirmed 1) the statistical significance of heterogeneity present, and 2) the various dimensions of its composition.

Thus, while past studies often do not identity the presence of such factors that may contribute towards differential survival outcomes, this research explores and highlights them. Therefore, the explanation offered in this study is not from literature-based assumptions, but rather it has emerged from a (inquisitive) fascination of how and why the 23 towns differ significantly or marginally across a wide range of variables (i.e. Guild change, Resource abundance, a range of Diversity indices, Resource change and Exit
rates). This has led to the identification of isolated and connected towns from which the explanation offered has been crafted.

### 6.3.2 Beyond competition

Central to the explanation offered is a denial that competition is a widespread and pervasive feature of the environment that provides the underlying force through which community structure is organized (e.g. Freeman and Hannan, 1983). This does not represent a bold move by the researcher given 1) his past experience in business and 2) the past rejection of such a dominant role for competition in the broader ecological literature (see Tokeshi, 1999). Consistent with the most accepted definitions of competition in the broader ecological literature (e.g. Milne, 1961; Grime, 1979); it is through an understanding of how resources are captured by the pizza firms that determinations of competition are stated. Therefore, room has been created for other ‘mini’ (non-competition driven) explanations that could logically contribute to a more complete and consistent explanation of firm survival. Nevertheless, such denial can only be tolerated in light of supporting evidence. Qualitative evidence from interviews/conversations with restauranteurs/consumers and Yellow Pages data combined to confirm that the presence and/or intensity of competition can be traced to variability across the same group of factors (related to environmental heterogeneity) that were identified using the process of Canonical Discriminant Analysis.

Several well established (and fundamental) ecological concepts offer multiple pathways towards a more complete and consistent explanation of firm survival. However, in the
absence of blindly assuming competition is acting uniformly as an efficient sorting process, this research is challenged with the task of attempting to explain how any other such explanations fit into an overall explanation of various coactions. The first ‘alternative’ concept observed was that of facilitation. Consistent with Rathcke’s (1983) notion of facilitation, understanding the extent to which guild members actually wanted to own consumer preferences, rather than share such preferences was central to allocating a role for facilitation in explaining survival outcomes. Further, there was no evidence found to suggest that in isolated towns any of the towns had moved towards a competitive phase identifiable by increased advertising and firm closures.

The next concept capable of contributing to the explanation offered was that of character displacement38 (see Brown and Wilson, 1956). On two separate occasions character displacement was observable. First, despite Domino’s Pizza entering the industry with very similar positioning to Pizza Hut in the early nineties, over time the key positioning features of Pizza Hut and Dominos diverged to the point where neither considers the other to be a direct (or significant) competitor (see Figure 5.4). Second and very noticeably, Chinese restaurants followed the trend of local pizza shops delivering food. Thus, the process of convergent character displacement (as an explanation) fits nicely in contributing to the explanation of firm survival. That is, through repositioning and/or mimicking the traits of other guild members, firms avoided competition.

38 Character displacement relates to occasions where differences among similar firms located close geographically are increased in regions where the firms co-occur but are reduced, minimized or lost where the firms’ presence do not overlap.
Once we are able to move away from Carroll’s (1985) highly restrictive definition of resource partitioning to the more liberal (and original definition) of Schoener (1968; 1974), we can again explain an absence of competitive coactions in many towns. Rather than a futile focus on economies of scale and ambiguous attempts to classify specialists and generalists, we can focus on specific elements through which competition is enacted (i.e. the nature of offering, the hours of operation, and the place of operation). As illustrated in chapter five (see Figure 5.16), sufficient evidence was found to highlight the manner in which firms organized their operations to avoid direct competition. A fourth concept not directly observed (but likely to support aspects of the explanation offered), is that of functional redundancy (Lawton and Brown, 1993). Put simply, within a guild where multiple sub-populations provide the same (or very similar) function, there simply might not be a need for all types of guild members to survive to ensure the guild retains its structure. Therefore firms may suffer environmental selection, not natural selection (Brandon, 1990)\textsuperscript{39}.

In summary, a range of ‘alternative’ explanations that are well established in the broader ecological literature, better relate to the evidence provided and remove any need to assume the presence of competition as the underlying mechanism contributing to guild composition and/or evolution. Importantly, the explanation offered takes into account the actual (advertising) behaviour of the firms under investigation across time and space. Explicit in this acknowledgement of time and space is an ability to deconstruct the industry environment into discrete, localized environment neighborhoods.

\textsuperscript{39} That is, it is the properties of the environment (i.e. the nature of consumer taste and availability of resources, etc) rather than the properties of the firms (i.e. their strategies and capabilities etc) that may most explain their differential success.
6.3.3 Understanding where the heterogeneity resides

In order to construct the explanation offered, it was important to be able to determine and measure where possible those factors that effect specific guild members in ways that influence survival outcomes. Brandon’s (1990) three concepts of environment (i.e. the external, selective, and ecological environments) provided an excellent way to identify and isolate factors related to individual towns. Overwhelming evidence was found that highly significant variance existed across all 23 towns during the entire period investigated (see Figure 5.27). The beauty of discovering so much variance across the towns was that it reduced the temptation to assume that some linear movement towards aggregating the data would simply produce intermediate points where sense could be made of the variance before it was lost at full aggregation. At full aggregation it is not possible to determine the extent of environmental heterogeneity as it relates to the performance (i.e. survival) of pizza shops or all guild members. Put simply, the unique relationships between the firms and their local environs have been averaged away (Wiens, 1989).

Therefore, the challenge is to start from the perspective of how the individual firms scale their environment. When we use the firms as measuring instruments (see Antonovics, Clay and Schmitt, 1987) we are exposed to different degrees of heterogeneity that belong to a specific location. To put this issue into perspective, consider Ehrlich and Murphy’s (1981, p. 615) warning against censuring (or aggregating) of populations that include more than one demographic unit (or selective neighborhood). They state that “attempting
to study the dynamics of populations without defining demographic units is roughly analogous to studying the performance of 20 thermostatic heaters (each of which operates on a feedback principle to regulate temperature) in 20 different aquaria by pouring water samples from each aquarium into a common container and then measuring the temperature of the water in that container”. Clearly, within this study this problem has been avoided by identifying, measuring and respecting the unique heterogeneity occurring in each of the 23 towns.

Between the disaggregated and aggregated (levels of) data lay a potential explanation of firm survival. The challenge was to find factors (that despite the extreme nature of variance exhibited in each town) related to the ‘assumed’ model of Transferred Demand developed in chapter two. The obvious factor was the propensity to advertise to attract resources. While it was not possible to split every town perfectly into isolated, connected or large categories, within a sufficient number of towns the nature of their advertising relative to their survival prospects and location was noticeable. In summary, survival relative to advertising provided for a reasonably level playing field to compare pizza survival in isolated and connected towns. A ‘reasonably’ level playing field because it was obvious that the ecological process of succession was occurring in each town as an isolated process with neither timing nor pacing in sync. Put simply, at the heart of explaining the heterogeneity observed across all 23 towns, is the challenge of not simply concluding that they are different, but rather, acknowledging that each town is out sync in its rate and/or stages of development. Nevertheless, the presence of Transferred Demand

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40 Succession refers to changes observed in an ecological community following a perturbation that opens up a relatively large space (Connell and Slatyer, 1977, p. 1119)
requires an acceptance that 1) we can understand how firms can alter aspects of the regional environment, and 2) that we can understand how such change can contribute to above normal survival outcomes by local pizza firms.

6.3.4 Beyond accepting the obvious… the generation and influence of invisible energy

Unlike past works that have acknowledged (but not explained) the likelihood that firms can change their environments (see Winter, 1964; Popper, 1972; Aldrich, 1979; Scott, 1987; Winter, 1990; March, 1994), the explanation offered here of Transferred Demand must account for the mechanism of, and, conditions related to how firms might alter their environments. Enlisting the works of Odling-Smee, Laland and Feldman (2003) and Jones, Lawton and Shachak (1994)\(^{41}\), a theoretically sound and well developed pair of frameworks were used to consider the issue of what mechanism, and what conditions could relate to firms altering their environment.

The central thesis of the model of Transferred Demand is that the natural development of franchised pizza firms alters the environment in several fundamental ways. Consistent with the Odling-Smee, Laland and Feldman (2003, p. 6) theory of niche construction, the franchised pizza firms not only modify their (operating) environment, but also the environment/s of other sub-populations by directly affecting properties of the environment that they share with other sub-populations. Importantly, “they not only contribute to energy and matter flow … but in part also control them”. In doing so, franchised firms also make possible the ecological inheritance (by local firms) of an

\(^{41}\) Works previously cited by Luksha (2005) and Jones (2006; 2007; 2008), but seemingly no one else in the organizational studies literature.
environment within which selection pressures have been lessened to the advantage of new entrants and existing firms.

Therefore, an entirely new ‘mini’ explanation (within the context of organizational studies) emerges. Rather than focusing upon the inheritance from one firm to another (e.g. routines associated with best practice) that provide a survival advantage, the explanation offered allows for firms to inherit a relatively benevolent environment within which selection forces have been lessened by the normal operations of the franchised firms. That is, the processes of natural and/or environmental selection experienced by local pizza firms have been modified by the franchised firms’ powerful and effective advertising. The argument contained within the explanation offered is that rather than assuming a survival advantage is explicitly gained from firms adapting to their environments, it is assumed that for many firms the environment has been altered to better suit their normal (or pre-existing) operations.

The challenge remains to explain more precisely what actual mechanism and related conditions explain the presence of Transferred Demand. In its most basic form, Transferred Demand\(^B\) is argued to exist when a franchised pizza firm operates in such a way as to stimulate consumer demand for all providers of pizza. In both the Australian and UK contexts this was seen to occur (in the five independent markets) immediately after the arrival of the first franchised pizza firm. Relative to the advertising emanating from other sub-populations (including local pizza firms), the franchise firm’s advertising signal has an intensity and clarity that alters specific aspects of the ecological
environment (i.e. increased consumer demand for pizza in general), and therefore reduces
the potential impact of the selective environment for all pizza firms. So in its most basic
form, \textit{Transferred Demand}^B is associated with an increase in the primary demand\textsuperscript{42} for
pizza. Whilst the benefits gained by local firms would not be uniform, they would be
expected to be essentially positive for essentially all local pizza firms. In contrast, in its
most complex form, \textit{Transferred Demand}^C is explainable with reference to several
factors that in combination describe specific conditions under which only some local
pizza firms would gain benefits.

Within the particular context of this study, \textit{Transferred Demand}^C was observed to
develop differently in Australia than in the UK due to differences in the operations of the
franchised firms in both contexts. In Australia, Pizza Hut, Dominos, and Pizza Haven
were always direct competitors due to their pursuit of a common (price conscious)
customer that sought delivery/pickup service. Alternatively, in the North Yorkshire / East
Riding region the process of divergent character displacement resulted in two separate
types of franchised pizza operations emerging. One that competed with local providers
for home delivery/pickup in the late afternoon to late evening (i.e. Dominos) and another
that competed against locals restaurant service style operators from lunch time till early
evening (i.e. Pizza Hut). The extent to which local pizza firms gained a benefit was
dependent on the existence of a benevolent environment.

Where franchised firms were located in the same location as local providers (i.e. large
towns) the intensity of their signaling benefited locals in several ways. Explainable with

\textsuperscript{42} Primary demand being the overall increase demand for a class of services or goods.
reference to the process of resource partitioning; the actual hours of operation, specific nature of offering, and location of each local firm dictate the ‘conditions’ under which Transferred Demand\(^C\) may assist survival prospects. Clearly those restaurant style firms that are up market and licensed are positioned towards a different clientele than Pizza Hut’s family oriented (and affordable) positioning. Likewise, those local pizza firms that offer a broad range of food services (pizza, kebab, chicken and burgers etc) appeal to a far broader customer group than Dominos. Add to such positioning differences the actual location of each local pizza shop and their specific hours of operation and the conditions unique to each firm and the advertising signal presence (from the franchised firms) are created. However, in large towns, those local firms who would not be expected to gain from Transferred Demand\(^C\) would be as follows; firms that are positioned too similarly to either Pizza Hut’s affordable restaurant style or Dominos delivery/pickup service in terms of hours of operation, specific offering or location will receive less (or no) benefit.

When local firms were located beyond the delivery boundaries of the franchised firms the benefits gained from the niche constructing behaviors were more obvious to discern. Rather than a specific focus on resource partitioning (and the avoidance of competitive coactions), now the focus is upon positive/negative coactions that are derived from the historical development of each town. In isolated towns, the primary conditions for Transferred Demand\(^C\) exist naturally (i.e. low levels of adversarial coactions and the retention of residential resources within the local town). Alternatively, in connected towns the reality of trying to attract the custom of more mobile residents naturally leads
to more adversarial coactions. Therefore, the primary conditions noted within the explanation offered are met naturally within isolated towns, but not in connected towns.

We can model the extreme differences between isolated and connected towns by employing the systems diagrams of Odum (1996). In Figure 6.2 below, we can observe the external signal of the franchised firm/s entering from the left of the diagram. This signal is received by consumers with a television and the repetitive pulse of the signal results in information (about pizza) being stored within the minds of the town’s consumers. It is argued that this information storage influences the food preferences of the consumers and in the absence of the advertised pizza; they consume pizza from the local provider. Thus, when the franchise signal is received, stored, and alters consumer preferences, the latent energy within the signal is converted into dollars for the local pizza shops. The red lines indicate the dispersal of available energy from the town.

**Figure 6.2 – Isolated Town Energy Flow**
Alternatively, in connected towns the flow of energy can be diverted by two separate ‘switches’. As illustrated in Figure 6.3 below, increased levels of advertising by the local guild members can reduce the clarity of the franchise signal, thereby reducing the degree of information stored in the town about pizza. Also, the increased food options available to local consumers who are 1) more likely to work in a location outside their or residence and/or 2), are will to travel to nearby towns/cities to eat reduces the attractiveness of the local pizza shops.

Figure 6.3 – Connected Town Energy Flow

Consideration of the suggested flows of energy through connected and isolated towns allows one to draw a clear distinction between the type of contingent conditions that would support or suppress the operation of Transferred Demand. In connected towns ‘switches’ are activated due to high levels of guild advertising that reduces the clarity of the franchise signal, reducing the amount of information (about pizza) stored. This inturn
reduces the influence on consumer preferences for pizza, which even in the event that they might exist are weakened by the availability of other food options beyond the town’s boundaries. In contrast, in isolated towns, the switches are not activated by increased levels of (local) advertising or the availability of attractive food options external to the town.

In summary, while it is highly likely the clever operators in large towns have altered their operations to avoid direct competition, by and large Transferred Demand is seen to be a process related to specific properties of the environment (as determined on a firm by firm basis) that is gifted to local firms. Its influence is governed by factors beyond the control of a single firm, but enhanced by the presence of non-adversarial behaviour. Under conditions of non-adversarial coactions and isolation, the advertising signal can be usefully thought of as a form of emergy (Odum, 1996). Odum defined emergy as available (or stored) energy of one kind previously required directly and indirectly to make a product or service that can (via the process of transformity43) be converted into useful energy by other entities within an ecosystem. There was little evidence in the UK context that local firms are aware of the benefit they gain from the invisible force that is Transferred Demand. Likewise, neither of the major franchised firms seemed aware of the (overall) positive influence their advertising had on the survival of local pizza firms. Essentially, Transferred Demand can be categorized as a classic commensalism, where one firm benefits and the other remains unharmed, regardless of intentionality.

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43 In defining transformity, an analogy regarding natural energy transfer is useful. Trees absorb energy over a period of years, which is stored and eventually (via the process of transformity) is released as carbon to fuel other things in society.
6.3.5 Visualizing the generation and influence of invisible energy

Given the apparent unawareness of the presence of Transferred Demand to many firms and the franchised operators, the key question that must be addressed is how was the explanation offered developed given the ‘invisibility’ of Transferred Demand? Several factors combine to allow the model of Transferred Demand (as developed thus far) to be explainable in this chapter. First, the ontological disposition of the researcher and past experience in franchised business contexts provide several foundational platforms to build from. Also, an enduring curiosity to achieve an explanation that maintains consistency with the original domains from which its parts are drawn. Let us first consider the ontological dimension with reference to Figure 6.4 below.

![Figure 6.4 – Bhaskar’s Three Overlapping Domains of Reality (a)](image)

Incorporating Bhaskar’s (1975) stratified realities into the research provides access to explanations that are built around a focus on generative mechanisms. Returning briefly to Bennett and George’s (2003) notion that generative mechanisms are ultimately unobservable social processes that under specific conditions have the potential to transfer energy or information, and important point must be made. As noted in chapter 3, while generative mechanisms may shape certain outcomes, they may also be shaped by other
outcomes. Pre-existing competitive coactions provide such an ‘other outcome’ that acts in a countervailing manner to deflect the potential influence of Transferred Demand.

With reference to Figure 6.5 below, while the explanation developed thus far has occurred in the domain of the empirical (i.e. firm survival), it has done so mindful of the events that have occurred in the domain of the actual (i.e. increased consumer demand), events that are claimed to have been caused by the presence of advertising signals occurring under particular conditions in the domain of the real.

**Figure 6.5 – Bhaskar’s Three Overlapping Domains of Reality (a)**

<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Domain of Real</th>
<th>Domain of Actual</th>
<th>Domain of Empirical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franchise Advertising</td>
<td>Consumer Demand</td>
<td>Firm Survival</td>
<td></td>
</tr>
</tbody>
</table>

To achieve a fit between Bhaskar’s (1975) stratified reality and the explanation offered required the use of the process of retroduction. Incorporating the researcher’s current insights and wisdom from past business experience made possible the postulation of structures and mechanisms thought possible to cause the differential survival outcomes observed. So we hold possible the presence of a specific form of generative mechanism in the domain of the real with (potential) powers to cause events in the domain of the actual, that we could confirm or disconfirm in the domain of the empirical via finding evidence for the postulates developed in chapter 3. The nature of the explanation offered has therefore been shaped by the researcher’s past experience and current imagination and
willingness to keep trying to fit ‘consistent’ pieces to an ecological puzzle from outside the domain of organizational studies. In summary, support has been achieved for the initial research proposition, support that now facilitates a more precise definition of *Transferred Demand*.

### 6.4 Defining transferred demand

The working definition (and therefore research proposition) used thus far was that; *Transferred Demand is a force capable of altering both selective and ecological environments, thereby enhancing survival, and its influence is determined by the interaction between franchised and independent pizza firms and elements of the general environment they share across time and space*. At this point in time we can now update this definition to be as follows:

*Transferred Demand is a form of emergy produced from franchisation that under certain conditions can alter both selective and ecological environments of other independent firms in such a way that their survival may be enhanced.*

Within this definition is the term *franchisation*, a termed coined and explained within this very discussion. Franchisation is the process through which an industry is transformed by the introduction of one or more franchised operators. The transformation is due to new ecological processes that alter the evolutionary outcomes (or trajectory) of the industry participants. Whilst it is common within the literature to assume negative impacts upon local business with the advent of franchising (see Stone, 1997), the findings of this study
suggest that this assumption may fail to appreciate 1) outcomes at localized levels, and 2) differences across industry types.

The definition provided is argued to accurately reflect the workings of Transferred Demand due to the inclusion of emergy. In this case, emergy is previously used energy that remains stored in the environment capable of being converted to energy by other firms. The determinant of any such conversion is the particular conditions (previously detailed above) experienced by any particular firm. The remainder of this chapter discusses the contribution this study is claimed to potentially make to theory, method, and policy. The chapter concludes with consideration of the limitations inherent within the study and opportunities for further research.

6.5 Contribution to the organizational studies literature

This study represents a major departure from traditional approaches to the investigation of firm survival in the organizational studies literature. However, by utilizing new theories and methods, an entirely new set of insights have be developed. Thus, the decision made to return to a variety of seminal foundations works, regardless of their domain of origin would seem well justified. As a result, the theoretical concepts used throughout the study have accepted status in the broader domain of ecology and care has been continuously taken to ensure that at all times any such concepts have been applied within this study in a way consistent with their usage in the broader domain of ecology. The value in returning to original source documents, consulting ecologists of many types and clarifying the approach undertaken is evidenced in the following discussion.
6.4.1 Beyond seeing what is there to knowing what is happening

Returning to the challenge of Sears (1980, p. 223), when the ecologist enters the study area, he or she “sees not merely what is there, but what is happening there”. When the challenge of Sears is combined with Geoff Hodgson’s (2001) Principle of Consistency, it is important to be armed with 1), an appreciation of the foundations of ecological thought and 2), an ability to apply such thought in a consistent manner. Conversations with a variety of ecologists have confirmed to the researcher that both prerequisites have been met within the requirements of this study. As discussed elsewhere (Jones 2008a; 2008b; 2007a; 2007b; 2006a), many tricky issues related to the usage of ecological/evolutionary theories have been encountered, and largely overcome throughout this study. Let us take the time to consider the nature of such issues.

6.4.2 What it means to use an ecological/evolutionary approach

The fundamental task of any ecological approach is to “delineate the general principles under which the natural community [under investigation] and … its component parts operate” (Clarke, 1967, p. 18). This entails accounting for all interacting entities occurring within a specific area and understanding the coactions between each and the relations they experience with their environs. Such an approach is evolutionary to the extent that it also seeks to explain events occurring over time with reference to mechanisms of selection that act upon all manner of variations, some of which are retained during the entities struggle to survive. To accept the above description as describing the most basic requirements of adopting an ecological/evolutionary approach
creates consistency issues. Therefore, this study does not seek to build upon work from within the organizational studies literature that claims to also use an ecological and/or evolutionary approach. Rather, it seeks to revisit the theoretical foundations of employing such an approach in the domain of organizational studies.

The first requirement is to be able to account for the nature of interacting entities within the particular community under investigation. At present within the organizational studies literature no framework (consistent with the broader ecological literature) exists from which to examine the various types of relationships experienced between interacting entities. As previously discussed, it is common to adopt Aldrich’s (1999) eight possible relations between organizational populations, assuming commensalism to be a descriptor for six of the eight relations. Despite claims that such usage is appropriate from a sociological perspective (Aldrich, 2007); the field of organizational studies is not born from or solely dependent upon sociological perspectives. This study has resurrected Haskell’s (1949) original coaction theory, establishing (for the first time) a consistent usage of the term commensalism between organizational studies and the broader ecological literature. Doing so introduces a well established framework for categorizing coaction relations between any interacting entities. The next issue relates to the unit of analysis.

Within this study, pizza firms cannot be assumed to belong to a single population spread throughout the region. Within this study, an ecological population is comprised of any sub-population whose members interact in a specific area. So this study is unique in that
it (for the first time in organizational studies) uses meta-population theory\textsuperscript{44} to organize the identification of populations and the guilds they subsequently belong to. Why is this important? As previously discussed the issue of scale is critically important to studies conducted from an ecological perspective that investigate any population within a heterogeneous landscape. It is to be expected that at various levels of scale, different patterns and processes of interaction will be occurring at discrete locations. Furthermore, pizza firms cannot be studied in isolation, for they clearly interact closely with other similar sub-populations (e.g. Chinese, Indian, and Fish and Chip shops). Therefore, they should be studied as members of local guilds, or a meta-guild (see Leibold et al., 2004).

Perhaps the most obvious (yet most significant) contribution made to the domain of organizational studies is to reveal the actual complexity of the environments experienced by firms during the period of this study. Once we move to conceptions of the external, ecological and selective environments scattered across a mosaic like landscape, we deny the opportunity of researchers to simplistically capture the relationship between firms and the ‘environment’. Clearly, there would rarely (if ever) be one singular ‘environment’. This has several implications (some of which will be discussed in the following section), especially with regards to how we view the nature of the relationship between firm and the environment.

\textsuperscript{44} It is recognized that Knoz and Katz (2000) have explored conceptually the application of meta-population theory in the domain of organizational studies.
Within the current organizational studies literature explanations of firm survival are commonly shaped around assumed notions of ever-present competition. Often it is claimed that firms can out compete other firms by better adjusting their interacting elements to achieve better fit with their environment (e.g. Tushman and Romanelli, 1985; Levitt and March, 1988). Such claims are refuted (see Hannan and Freeman, 1989) by those who see the firms’ essential (core) interacting elements as relatively inert, and therefore difficult to change during times of environmental change. However, increasingly such extreme opinions are less about a dichotomy of opinion, and more about questions of how the processes of selection and adaptation interrelate (e.g. Levinthal, 1991). It is argued here, that regardless of which view is more dominant within the literature, any attempt to develop our understanding of why firms survive will be restricted by an inability to use appropriate ecological/evolutionary concepts and therefore ecological approaches. Let us consider a simple example.

The recent work of Greve (2002, p. 847) provides a very interesting analysis of the importance of spatial heterogeneity to population evolution. Despite recognizing that “organizations exist in a differentiated spatial ecology generated by past foundings and failures”, the potential importance of the arguments presented are stymied by; 1) an apparent willingness to deal with this ‘new’ issue by using all the organizational ecology approaches developed (in the domain of organizational studies) since the seminal work of Hawley (1950). Thus a sociological paradigm of thought that excludes the most fundamental of ecological concepts is relied upon to make sense of spatial heterogeneity.
We have much to learn from integrating ecological thought from outside of our direct domain of practice. The following quote is both appropriate and thought-provoking:

New disciplines or fields of study do not spring to life fully formed, replete with arsenals of ideas, questions to be researched, theories to be tested, methods and tools to be used, or applications for their findings ready and waiting. Instead, they usually begin with glimmerings of new ideas or different perspectives, often developed as part of some seemingly unrelated discipline. These ideas or perspectives may lie dormant for some time, perhaps decades, while work in the mainstream field continues apace or evolves in different directions. At some point the ideas emerge again, prompted perhaps by thinking in other disciplines, new methods or technological advances, or simply someone reading the old papers in a fresh context and seeing things in a new light. The ideas and approaches begin to coalesce into something that has its own identity. The fusion of new or forgotten ideas and approaches is most likely to occur when different disciplines collide, drawing energy from the fringes that share a fascination with a common set of phenomena or problems (Wiens et al., 2007).

Within the work of Greve (2002), despite its availability, the simple concept of succession (so applicable to Greve’s discussion) is not used. Neither is any consideration given to non-harmful coactions, nor is the issue of ecological scale employed. The point is, we as researchers of organizational phenomena have everything to gain from looking over the fence and shaking hands with the broader domain of ecology if we wish to claim we use such approaches correctly. During the past 30 years the field of organizational ecology has had hardly any influence outside “the inner circle of its own parish” (Gruter, 2000, p. 5). Therefore, this study (metaphorically) has taken the opportunity to turn
around to see where ecology has come from, before trying to extend its use moving forward.

In summary, much new ground has been made by simply trying to be consistent. For example, by considering the environment to be a firm specific phenomena, we have an improved view of what exists for all (i.e. the external environment), but which may influence in different ways. We can consider how other firms might alter the selective and ecological environments individual firms operate within, and how such environments are born from non-harmful interaction. We are able to conceive how some firms might have benefited from a process best labeled ‘survival of the luckiest’ as their environment is altered in ways that immediately benefits them. We can also see that attempting to categorize firms as simply generalists or specialists is so problematic that it quite likely ignores that actual (alternating) function they perform within their location. We can also see that ignoring ecological scale is ignoring the very variance from which new and interesting explanations of firm survival might emerge from. And finally we can see the potential danger of conducting any research that assumes the presence of competition without knowing 1) what mechanisms act to produce negative coactions, and/or 2) don’t account for patterns of attempted and/or actual resource capture.

**6.5 Contribution to the research methods**

Without doubt the most significant contribution this study makes to research methods used in organizational research is to employ the concept of ecological scale. All too frequently it would seem that organizational ecology has (to date) seemingly developed
in a trajectory parallel to the ‘selfish’ needs of researchers’ intent on conducting large-scale quantitative studies. Reliance upon quantitative data rather than access to thick descriptions of industry-level processes that are assumed central to understanding organizational performance (Gruter, 2000) continues unabated.

Without consideration of the various levels of scale at which research could be conducted, the model of *Transferred Demand* developed within this study would not have been possible. Wiens (1989, p. 394) states that “our ability to detect environmental heterogeneity, for example, depends on the scale of our measurements, whereas the ability of organisms [i.e. firms] to respond to such patchiness depends on how they scale the environment. Proper analysis requires the scale of our measurements and that of the organisms’ [i.e. firms’] response fall within the same domain”. To further explain the position of Wiens, we must first define what he means by the terms *extent* and *grain*. Extent is the total area covered by a study (i.e. the region of North Yorkshire), whereas grain refers to the individual units of observation (i.e. an individual town in North Yorkshire). Therefore, the resolution of the study has its upper and lower limits determined by the extent and grain used. Wiens uses the simple analogy of a sieve; the extent determines the size of the sieve, and the grain determines the size of the mesh.

To extend the notions of Wiens (1989) into the domain of organizational studies, it is the nature of how the firms under investigation scale their environment that must be understood. However, the term *population* is frequently used as a ‘statistical grouping’ rather than a discrete grouping of similar organizational forms that interact in a specific
area. Despite claims (see Baum and Shipilov, 2006) that spatial components, geographical barriers and/or localized resource environments are important areas of focus for organizational ecology researchers, such work is still locked into the population ecology mindset of examining founding and exit rates, rather than a broader ecological approach of accounting for how entities interact with each other and their surrounding environment. Dividing a landscape by zip codes (see Barnett and Sorenson, 2002) may be convenient for the researcher, but it is unlikely to capture the reality of how specific firms scale their environment.

Such concerns highlight another ‘research method’ contribution this study makes, that being the assumption inherent to research conducted from a positivistic approach that assumes that we can capture reality in our empirical access to (secondary) data sets and (primary) survey data. Social scientists conducting ecological research have an advantage that natural scientists conducting ecological research don’t have; we can talk to our subjects. Not only can we talk to our subjects about their lives, we can also discuss with them their recent history. As such, the infusion of qualitative methods to accompany quantitative methods has the potential to enhance our understanding of the subject matter under investigation. This study combined two methodological initiatives to achieve both ontological appropriateness and contingent validity. First, some background information is required.
The initial observations from the Australian context were inconsistent with assumptions of the regularly employed density dependence model\textsuperscript{45}. Despite concerns (see Petersen and Koput, 1991) that unobserved heterogeneity is not taken seriously, the generality of the density dependence approach within organizational ecology has been generally preferred to the aim of achieving greater “precision of measurement and realism of context” (Singh, 1993, p. 471). As a result, the empirical findings of much leading research (i.e. Hannan and Freeman, 1989, Hannan and Carroll, 1992) regularly fail to find support in other studies (see Aldrich and Wiedenmayer, 1993). What is missing is a complete lack of consideration of density independence processes through which exit rates, founding and growth rates neither increase rise or fall as population density increases (Begon, Harper, and Townsend, 1990). Also missing is an admission that attempting to calculate the carrying capacity\textsuperscript{46} of any organizational population is essentially impossible given the influence of man’s behaviour and use of technology to alter resource usage and availability (see Cohen, 1995).

Though not acknowledged, such oversights (i.e. no appreciation of density independence process and presumption of being able to accurately calculate carrying capacities) are but two oversights that would logically contribute to the repeated failure of past research findings to be replicated. This study perhaps offers a way forward to bring in from the cold the issue of environmental heterogeneity and to use it positively within our studies. Within this study, the use of transcendental realism provides the researcher with an

\textsuperscript{45} That is, the tendency for the exit rate in a population to increase, or the founding or growth rate to decrease, as the density of the population increases (Begon, Harper, and Townsend, 1990).

\textsuperscript{46} “The maximum population size that can be supported indefinitely by a given environment” (Begon, Harper, and Townsend, 1990, p. 847).
ability to explore complex social phenomena where the asking of how and why questions related to firm survival is of greatest importance. So while the inclusion of ecological scale has allowed access to the variance in the landscape under investigation, transcendental realism has allowed new questions to be asked about causation (vis-à-vis firm survival). Questions that introduce a leap of faith that breaks the study’s trajectory away from the lack of empirical regularity observed in 1) the first stage of the study (i.e. the Australian context) and 2), between other such studies conducted using survey based approaches.

Put simply, the study has been focused upon the possible presence of a generative mechanism, and therefore this study needs to access a stratified reality to understand what mechanisms give rise to particular events that can be partially experienced in the empirical domain. As such, this research has achieved a high degree of ontological appropriateness (Healy and Perry, 2000). Also, the use of ecological scale has allowed the study to understand a range of ‘contingent’ conditions under which the process of Transferred Demand operates and/or is suppressed by other conditions (e.g. competitive environs).

In addition to also employing statistical processes common in firm survival studies (e.g. SPSS Survival Analysis), this study has also developed and employed several other processes that advance our ability to 1) identify the level of environmental heterogeneity, 2) identify (and therefore understand) factors that contribute to environmental heterogeneity and 3), incorporate those factors into the analysis of firm survival. This
study is the first study to use (an adapted version) of Pianka’s (1973) *Community Similarity Index* to consider to what degree community differences exist within the region investigated. Due to the fine-grained analysis conducted, various town-specific factors were able to be measured and contrasted to identify how one community guild differed from the next. The use of *Canonical Discriminant Analysis* provided rigor to the analytic process of determining the degree to which any such difference was statistically significant. Further, the observed problem of dealing with ‘gross’ survival outcomes produced from SPSS Survival Analysis was addressed through the development of an *Advertising Efficiency Index* to create adjusted ‘net’ survival outcomes.

All three additional innovative processes signify the ease in which data emerging from archival sources was used in combination with data received from qualitative sources. Thus, the underlying mixed method approach used offered “a picture of reality [that] can be triangulated with other perceptions” and data (Healy and Perry, 2000). In the spirit of Glaser (2001), all is data!

In summary, this study has not been beholden to satisfying the methodological preferences of positivism, so commonly used to investigate firm survival in the domain of organizational studies. Thus this study sought not to build upon the results of current practice, but rather to return to the foundational aspects of human/organizational ecology and reconnect to accepted ecological thinking and practice. This study sought to confirm or disconfirm the logic of the novel explanation that emerged from the Australian phase of the study. When in doubt as to the next step, two questions were continually asked of
the process; first, what would an ecologist do? And second, has the ‘scientific’
association between ontology (i.e. the reality explored), epistemology (i.e. the
researcher’s relationship to that reality), and methodology (i.e. the processes used to
investigate that reality) been consistent with that prescribed by Guba and Lincoln (1994)?
Whilst maintaining the intent of such an association for work utilizing the critical realism
paradigm, this study has been able to introduce numerous methodological innovations
that have combined to underwrite an entirely new explanation of firm survival. An
explanation that is nevertheless consistent with the broader ecological literature with
regards logic and process.

6.6 Contribution to the policy and practice

A potentially useful contribution to policy emerges from the findings of this study. What
are the benefits of franchising to local communities? According to Alon (2006), very few
(if any) studies have empirically investigated the impact of franchising across various
industries. Therefore, it would seem that even less is known about the contribution of
franchising located in larger towns (transfers) to more remote communities. Clearly, an
obvious implication that arises from this study is the possibility that Transferred Demand
is generated by more than just franchised pizza firms. That is, that other local industries
may be gifted a survival advantage in small communities. This issue will be discussed
shortly in the section on future research opportunities.

Correspondence with leading researchers in the field of franchising (Walsh, 2007)
highlights the potentially unique nature of the findings of this study. That overall there
might be more positive benefits received by local independent firms than negative goes against the grain of normal assumption. This suggests their may be genuine (and sustainable) economic benefits for local communities from the process of Transferred Demand. Infact, in repeated informal conversations with restauranteurs there has been a consistent level of strong support for the model of Transferred Demand. It would seem that the model developed thus far achieves a great deal of parsimonious support due to the fact that it in their minds, it makes sense.

In summary, since completing the study it has become apparent that many inner city pizzerias in Tasmanian have relocated to regional towns where there operations are flourishing. This suggests that rather than trying to help local firms fight a turf war with a franchised competitor, educating firms to the opportunities of repositioning (strategically or physically) may provide a survival advantage. Rather than assuming that firms must learn to out compete when their industry experiences franchisation, it may well be that developing a greater understanding of how to co-exist and benefit from excess emergy may provide a smarter approach. This study offers a reminder that man “must not only make social products, but [also] make the conditions of their making” (Bhaskar, 1979, p. 48).

6.7 limitations of the research

This study was conducted through the lens of transcendental realism. As such, the knowledge developed, while considered real is still held to be fallible. Realism holds that it may not be possible to observe every permutation relating to the generative mechanism.
This study simply sought to confirm or disconfirm the model of *Transferred Demand* by finding support (or otherwise) for a series of postulates within the context of discovering a range of contingent conditions. It was not the aim of the study to ‘test’ a theory, but rather to develop a model. That model is now developed and available for testing in future studies.47

From an alternative perspective, the ontological approach employed imposes its own set of limitations; we would not expect another researcher who chose to investigate the same firms using a different approach, who gathered different data and analyzed it differently, to draw the same conclusions. Of critical importance was the need to avoid committing an epistemic fallacy (Sayer, 2000) whereby scientific knowledge is derived only from what is directly given or observable (in the empirical domain). Therefore attention was given to what was possible using the process of retroduction within the context of a stratified reality. Perhaps Danermark et al., (2002, p. 74) best sums up the approach employed here and its limited need for generalization:

> “An overall aim of science is to explain events and processes. To explain something implies (from the perspective of critical realism) first describing and conceptualizing the properties and the causal mechanism generating and enabling events, making things happen … and then describing how different mechanisms manifest themselves under specific conditions. This kind of investigation requires a methodological approach based on abduction and retroduction, and breaking with the so-called Popper-Hempel model of scientific explanations”.

47 This approach is inline with Moore and Upcraft’s (1990) interpretation of how developing models leads to the eventual development of theories.
Said another way, this study has the roots of its findings in the transfactual conditions it has explored. Danermark et al., (2002, p. 77) go on to say “according to the realist concept of generality, scientific generalizations largely refer to transfactual conditions, to more or less universal preconditions for an object to be what it is”. Such comments build on Bhaskar’s (1978, p. 227) view that “scientifically significant generality does not lie on the face of the world, but in the hidden essence of things”. That said, whilst much of the variance in the landscape has been unearthed, it is more than quite likely that more remains to be discovered. Given the fact that many of the events under investigation had already occurred prior to the study’s commencement, an outcomes based explanation (see Mahoney, 2003) provides a logical approach to learning about the possible presence of a generative mechanism and its transfactual conditions. However, this may potentially reduce the acceptance of the findings by those that evaluate the validity and reliability of research alternative ways. Therein lies a research limitation, but perhaps more accurately a research challenge, that of gaining legitimacy for the approach, findings and future research opportunities that arise from this study in the mainstream organizational studies literature.

6.8 Research opportunities arising from this study

This research started by dwelling upon the following question; why do some firms survive for considerably longer periods of time when other apparently similar types of firms operating under apparently similar conditions do not? Exposure to the events surrounding the founding, development and current practices in the pizza industry in various markets in Australia led to the conception of a preliminary model of Transferred
Demand, thought to aid the survival of pizza firms operating under different transfactual conditions. Confirmation of the models dimensions and elucidation of its operation in the North Yorkshire / East Riding region during the period 1975 to 2004 has advanced the model and provided a more concise definition of Transferred Demand. A natural research opportunity now emerges to test the model in various industries to advance work towards a possible theory of Transferred Demand. Also, to investigate the presence of apparent competition and to explore the actual nature of coactions occurring during the process of resource capture.

During the travels associated with conducting this research and visiting other countries, the initial data to tackle this opportunity has been collected. Using the Yellow Pages archival records (from earliest 1965 to latest 2005), data for the restaurant industry in Tasmania, Australia, Halifax, Canada; and Vermont, USA has been collected to provide comparison to the North Yorkshire / East Riding region investigated in this study. In addition, the same form of data from all four countries has been obtained for the Video/DVD Hire, Retail Hardware, Home Gardening Services, and Optometry industries have been collected. So, the opportunity to extend this study by looking for evidence of Transferred Demand in five industries across four countries has already been created. Thus an opportunity also exists to move towards a theory testing phase, through which a more predictive account of when and where firm survival would be impacted by franchisation.
Also, this research has added a range of techniques and ecological concepts into the domain of organizational studies that should logically challenge other researchers to test their use and applicability to the research endeavors of others. Hopefully, an invitation to exchange thoughts and ideas with other ecologically oriented scholars may be increased by publication of this research. Also, this study may contribute to moving the domain of organizational studies closer towards considering the implications of not using ecological concepts/processes in a manner consistent with the broader ecological community.

6.9 Researcher reflection – the end of the beginning…

A journey started, finding myself ontologically and then epistemologically has made me feel comfortable about where and how I might find an explanation for the wanderings of my mind. I feel better equipped to allow my mind to continue to wander. Throughout this study I felt like I was on a treasure hunt, the further I travelled and attempted to use one concept consistently, the more (ecological) sense would emerge and a logical next step towards investigating the events would seem to appear. The confidence gained from completing this study has me contemplating working even closer with ecologists to develop a truly consistent usage of ecological concepts in the social sciences. Knowing that a raft of ecological approaches/concepts not used in this study may offer new ways of thinking about how and why firms survive is exciting. I want to explore this underdeveloped landscape, fuelled by my excitement to work with those willing to increase our understanding of how firms interact with each other and the environs they operate within. However, for now, time for a brief rest before the next journey begins.
CHAPTER SEVEN
Epilogue – Building a Model of Firm Survival

7.1 Introduction and overview

The purpose of this chapter is to reflect upon the research journey undertaken within this study, with the specific aim of enabling the reader to understand and appreciate the development of the retroduction process, and the influence this process has on the structure of the thesis. It is as a critical realist researcher that I construct this chapter. Here I proudly reconfirm the importance of the retroduction process, a vital process when investigating past events (Mahoney, 2003), events that having already occurred cannot be tested using traditional approaches. Several interrelated challenges relevant to the nature of this study are explained to justify the logic of the structure of the thesis.

7.2 A different kind of reasoning

The most significant issue influencing the structure of the thesis is the use of the process of retroduction. Separate to inductive and deductive forms of reasoning, retroduction is simply conjecture which arises in the mind. It has been argued that retroduction “represents an attempt to overcome the pitfalls of purely inductive or deductive research processes” (Sæther, 1998, p. 246). Moreover, Peirce (1908, p. 104) argues that it is a form of reasoning through which “spontaneous conjecture of instinctive reason” provides the intellectual foundations for new ideas to eventually be deductively explicated and/or inductively evaluated. Retroduction is an initial thought process through which the
provisional plausibility of something is held to be possible. Peirce wonderfully captures the essence of the process when he says:

The whole series of mental performances between the notice of the wonderful phenomenon and the acceptance of the hypothesis, during which the usually docile understanding seems to hold the bit between its teeth and to have us at its mercy—the search for pertinent circumstances and the laying hold of them, sometimes without our cognisance, the scrutiny of them, the dark labouring, the bursting out of the startling conjecture, the remarking of its smooth fitting to the anomaly, as it is turned back and forth like a key in a lock, and the final estimation of its plausibility, I reckon as composing the first stage of inquiry (Ibid, p. 100).

For Peirce, such journeys via retroduction are essential for the development of new ideas from which deductions can be drawn and compared against future observations. Danermark et al., (2001, p. 96) argue that “retroduction is about advancing from one thing … and arriving at something different”. The notion of the fitting of an ever altering conjecture to an anomaly perfectly describes the process of developing the model of firm survival used within this study. At no point was the researcher afforded security from the retroduction process, merely the confidence to “enter … [a] … skiff of musement … [and to] … push off into the lake of thought (Ibid, p. 95). A journey where all is data (Glaser, 2001). The very nature of this journey and its influence over the eventual structure of the thesis will now be explained.

7.3 From observations, to thoughts, to actions, to structure

The manner in which this form of reasoning is incorporated within this study and how it influences the structure of the thesis (from left to right) is illustrated in Figure 7.1 below.
The processes illustrated above are tethered first and foremost by the researcher’s ontological beliefs (discussed elsewhere) as related to the research paradigm of critical realism. Bhaskar’s (1975) process of transcendental realism provided the first influence
upon the structure of the thesis\textsuperscript{48}. The study commenced with the researcher observing apparent increased levels of competition in the Hobart Pizza industry that seemingly correspond to increased levels of firm survival. Thus, an observed invariance provided the starting point to this study. An observation born from the researcher’s fascination with evolutionary/ecological explanations of firms interacting with their environs.

7.3.1 Chapter 2 – Walking, touching and imagining reality

Thus, chapter 2 provides the starting point for an explanatory approach (based on critical realism, see Danermark et al., 2001) to move this study forward. The first step being to describe the events across the time period investigated, using the interpretations of the persons involved to the fullest and making full use of both qualitative and quantitative data. Unlike more traditional thesis formats\textsuperscript{49}, the order in which such events are discussed, with logic and insights drawn from, is related to the process proposed by Danermark et al., (2001). In Figure 7.1, the stages of this process fall vertically under the heading ‘Research Stages’.

Thus, it is the requirements of the chosen method that drive the nature of thesis structure. Essentially, transcendental realism requires the development of a model which if it where

\textbf{Observed Invariance}

Despite the fact that competition was reported by all persons interviewed in the Hobart, Nth West & Nth East Tasmanian and Geelong Pizza industries, the statistical data confirmed increased rates of independent firm survival after the entry of the first franchised firm.

\textsuperscript{48} It is assumed that the ‘research’ thesis proper starts in chapter 2 after the overview provided in chapter 1.

\textsuperscript{49} For example, and introductory chapter, followed by a Literature Review chapter (including research question development), followed by a Method chapter, followed by the Findings and Discussion chapters.
to exist, would explain the observed invariance via empirical scrutiny. Within the context of transcendental realism, the process of retroduction was essentially used as the model-building engine (consistent with Bhaskar, 1979) through which the postulated operation of a mechanism was formulated from the cognitive materials of the researcher. During the second step of the explanatory approach, the process of retroduction was advanced by moving from the concrete to the abstract by dissolving the composite and complex, and by distinguishing the various components, aspects or dimensions related to the events being observed (Danermark et al., 2001, pp. 109-110).

At this stage, it is important to note that in reality the six steps of the explanatory approach were not used in strictly a linear manner. Consistent with Danermark et al., (2001), the six steps tended to be used in an intertwined (or iterative) way. This flexibility proved essential as the researcher was able to move backwards and forwards whilst attempting to synthesis the various forms of data with emergent thoughts/insights. This plasticity between steps made possible the eventual isolation of components assumed to contribute to the proposed model of firm survival.

<table>
<thead>
<tr>
<th>Identified Components</th>
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<tbody>
<tr>
<td>1. Harmful and non-harmful relations</td>
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<tr>
<td>2. Environmental heterogeneity</td>
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<tr>
<td>3. Firms altering the environment</td>
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<tr>
<td>4. An invisible force transferring energy</td>
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</tbody>
</table>

In summary, chapter 2 captures the researcher’s initial journey into the field, reporting upon the events occurring in the Hobart Pizza industry. The critical research issue being
the emergence of observed *apparent competition* occurring alongside *increased firm survival*; these events being a contradiction of the theoretically espoused position within the firm survival literature. Therefore, the staring point of the transcendental realism process (i.e. an invariance of the norm observed) has been obtained and for the researcher the consideration of an underlying mechanism commenced. Through the identification and isolation of components the process of retroduction had begun with imaginative conjecturing provisionally promoting multiple configurations of a model of firm survival. Importantly, the process of considering the nature of contingent conditions that might support/suppress any such model had also begun. Thus, a speculative bridge between what is experienced (by the researcher) and what mechanisms must be real (for the model to exist) vis-à-vis specific events (and/or conditions) was incrementally developed to advance the process of model-building.

### 7.3.2 Chapter 3 – *Old eyes for new ideas*

In chapter 3, the iterative process of moving between steps continued, constantly revolving around *loose* retroduction reasoning. The above mentioned components emerged as likely contributors to a model of firm survival due to their support in the *broad* literature. Here the value of retroduction to unearth new ideas flourished. The process of theoretical redescription (i.e. the third step) opened a doorway for the researcher to wander within the developed literatures of mainstream ecological thinking to provide confidence in each component. That is, the process of *discovery* vis-à-vis
inconsistencies between ideas/concepts in different domains considered germane to the study fuelled the researcher’s intellectual curiosity and eventual confidence in the provisional model. Importantly, the fourth step (i.e. retroduction) was now occurring across and within each of the first three steps.

In this regard, and consistent with the logic of Peirce (1908, p. 101), the retroduction process also remains to light the pathway forward. “Retroduction does not afford security. The Hypothesis must be tested”. Throughout chapter 3 as the suitability of each component was contemplated, several postulates were also developed to facilitate empirical scrutiny. Therefore, a natural and seemingly pure link was made between the researcher’s observations, wanderings through various fields of literature and the requirements of science that would provide judgement on the model’s potential usefulness.

7.3.3 Chapter 4 – Finding myself to find my method

Through the steps of theoretical redescription (step four) and retroduction (step five) the research method and findings were presented. Investigating the presence of a) an invisible force, and b) events that have already occurred is challenging for any researcher. Ultimately, the challenge was not to find the appropriate methodology, but rather to find oneself within the process of the investigation. The mixed-methods approach outlined in
Chapter 4 is the outcome of my search for myself as the researcher within this study. As a chapter, it has been partly formed by the foregoing events and processes discussed in the previous chapters. Finding order in the arrangement of data in the world I investigated through the lens of Bhaskar’s (1975) stratified reality was my greatest achievement in this regard. Rather than looking for something specific, I found solace in finding irregularity. The non-conformity within my data was collected from across a highly heterogeneous landscape. Access to sense required the interpreting of this landscape through my trust in the process of retroduction, the central organizing component of the explanatory approach used.

7.3.4 Chapter 5 – Uniting threads

Acknowledging the heterogeneity of the landscape under investigation allowed me to feel that interpreting the findings was akin to knitting together a patchwork quilt. As I progressively moved from one postulate to the next, I felt confident that the various threads when drawn together provided clarity and sense to an otherwise mountain of data. The ecological concepts and their potential power to unite my thoughts vis-à-vis other matters provided guidance towards the support of the provisional model. In the true spirit of Sears (1980, p. 223), I felt that throughout my collective meanderings I too had seen “not merely what is there, but what is happening there”. Given the

**Dividing the Data**

At different levels of analysis the data revealed alternative patterns that informed the provisional model in unique ways. The acceptance of isolated, connected and large towns stemmed from the inclusion of ecological scale.

As such, stories within stories emerged regarding the fitting of different types of data to the provisional model vis-à-vis differing conditions of operation.
(comparative) volatility of the data at the level of each town, such confidence was essential to being able to forge ahead with more retroduction-based musings to consider and confirm the workings of the model under different conditions.

### 7.3.5 Chapter 6 – Making sense of the method and data

In chapter 6, the method and data combine with the researcher’s capacity to describe the necessary conditions for the model’s operation and suppression. Thus, the explanatory power (i.e. step five) of the model (see left for updated form) comes to life during this discussion chapter. Confirmation of the model’s operation provides opportunities for congratulations and for consideration of other conditions that lie beyond this study to further scrutinize the model (i.e. step six). However and perhaps most importantly, an opportunity now also exists to consider the evolution of the final model.

#### 7.3 The evolution of an idea

At the beginning of this study, the (eventual) main ingredients were all missing. Along the way a form of reasoning was adopted through which my latent ontological and epistemological orientations naturally fitted. The method of retroduction and associated process of theoretical redescription has allowed the model’s final components to be assembled in a consistent manner that satisfies the requirements of Hodgson’s (2001)
Principle of Consistency. During this study, my orientation towards evolutionary/ecological concepts to explain the social world has unfolded in a path-dependent manner that while logical in hindsight could have lost traction with the elimination of any one step along the way. That is, the outcome of this study could have never been known in advance; and the future contribution of this study will also only be known in the passing of more time.
REFERENCES


