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Title	Addressing strategy and innovation in family business practice; a process of adaptive change
Authors	Gleeson, Peter
Publication date	2018
Original Citation	Gleeson, P. 2018. Addressing strategy and innovation in family business practice; a process of adaptive change. PhD Thesis, University College Cork.
Type of publication	Doctoral thesis
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Download date	2026-10-06 18:43:00
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Addressing Strategy and Innovation in Family Business Practice; a Process of Adaptive Change

by

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A Portfolio of Exploration submitted in fulfilment of the requirements of the examination for the:

DBA (Business Economics) Degree of the National University of Ireland – University College Cork

Department of Economics

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April 2018

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Abstract

This Portfolio of Exploration documents the transformation in my management practice from an operational to a strategic orientation. The central research question revolves around the impact of a process of adaptive change on my management and a series of business implementation actions. My operational approach had reached its limits with the 2009 construction industry recession exposing the invalidation of the assumptions underlying my management practice. I engage in a process of adaptive change to formulate responses to the changed operating environment both in terms of strategy and innovation. The process is organised into a set of three essays.

In Essay One, I engage in a Professional Development Review to trace the development of my meaning making and to surface the theories underlying my management practice. I reflect on how my background in family business and accountancy training has shaped my 'hegemonic assumptions' (Brookfield, 1995). I structure the review using the Adult Mental Development theory of Kegan (1994, Kegan & Lahey, 2009). I document my experiences since returning to manage the family business and outline the developmental goals pursued in the remainder of the Portfolio.

In Essay Two, I explore the themes underlying my developmental goals by engaging with source thinkers in the Reading for Change Essay. The movement generated in my meaning making enables me to re-define my management practice. I apply an adaptive approach to reading Porter (1980, 1985, 2008) and to analyse my operating environment. Based on this re-reading, I develop a strategy for my business, incorporating advances in strategy since the launch of Porter. I examine the business model assumptions underlying my practice using Brookfield (1995) and Drucker (1994) and explore the role of assumptions in driving business models.

I demonstrate the impact of my new management practice in Essay Three, Transforming Practice. Through a series of action research projects, I demonstrate how my practice has been transformed and the effect on the operations of my business. The action projects illustrate the application of previously unused productive managerial resources to business development.

In the Portfolio Conclusion, I conclude that adopting a strategic perspective is essentially a higher-order mental demand and requires meaning making operating at that level. This work adds to knowledge in the family business and strategic management areas by demonstrating the impact of an adaptive change process on the effectiveness of management practice. It also reviews the impact of adaptive change on the innovative projects pursued. I set out the implications of this for my selected audience, i.e. practitioners operating in a family business environment and those operating in the SME sector of a commoditised industry with strong competitive forces along with researchers, advisors and policy makers in these areas.

Acknowledgements

I wish to thank all who have helped along the DBA journey and to bring this Portfolio to completion. I would like to thank my classmates Gail, Maria, Noreen and Sheila and our facilitator Paddy Crowe for their help and support over the last four years. Special words of appreciation must go to my supervisor Prof. Eleanor Doyle for all her valuable guidance and assistance. I would also like to acknowledge the input of my examiners, Prof. Brian Sutton and Dr. Edel Walsh, whose insights and suggestions greatly improved the quality of the finished document.

I would particularly like to thank my wife Maria for her support and encouragement on the many occasions I was disillusioned along the process. This work would not have come to fruition only for her. I also acknowledge the patience of my children Cormac, Brian, Evanne and Emilia for the many occasions that I was engrossed in work and too busy to play.

Declaration

I declare that this Portfolio is my own work and has not been submitted for another degree, either at University College Cork or elsewhere.

_____

Peter Gleeson

Portfolio Introduction

1.0 Opening Remarks

An Irish proverb states that the longest journey starts with the smallest step. Never was this more applicable than in my case as I commenced my doctoral studies in Autumn 2014. With considerable trepidation and apprehension, I returned to academic study after more than twenty years absence.

Having had my previous certainties obliterated by the tumultuous impact of the Great Recession of 2008-2010, I was ready to embark on a transformational journey. The opportunity to find answers to questions that had been weighing on me was like a light at the end of a personal tunnel. I was intrigued by the focus on personal development and transformation highlighted by the prospectus for the programme. It seemed to offer a path to understanding and navigating what was proving to be a treacherous operating environment.

At this time, I was Managing Director of a family-owned quarry and concrete products business based in Tipperary, in the south of Ireland. I am the second generation of the business which was founded by my father and am in my current position since 1999. The business thrived up to 2008 in tandem with the rapid expansion of the construction industry which was the main outlet for our products. However, the subsequent crash devastated our business and caused a 60% drop in turnover and consequent collapse in profitability. The impact of these events acted as my catalyst to a journey of discovery and personal development. It was obvious that

what had worked for me during my career until then would no longer be sufficient. I would not only have to develop what I knew but how I knew (Kegan, 1994).

This Portfolio of Exploration charts my path along this journey. I use a set of explorations to unearth the assumptions underlying my management practice and use the readings derived from these explorations to examine these assumptions. At the start of my studies, I was unaware of the existence of theories underlying my management practice. However, "every practice rests on theory, even if the practitioners themselves are unaware of it" (Drucker, 1985, p.23) and I have engaged in reflection to surface the theories applicable to me. The remainder of this work outlines how I have re-evaluated my management practice and the theories applicable to it to transform myself and the impact this has had on me personally and on aspects of my business.

1.1 Purpose

The role of this Introduction is to present the key topics explored in this work and to place the remainder of the Portfolio into context. It sets out the parameters for the work in terms of research approach and methods. It outlines the audience towards which this work is targeted. I introduce the key aspects of Kegan's Theory of Adult Mental Development (1982, 1994), which I use to structure the initial Essay in this Portfolio.

The purpose of this Portfolio is to enhance the effectiveness of my management practice. When starting on the transformational process in 2014, I identified the following developmental goals:

- To understand why a management practice, which had previously been effective was no longer effective in the industry environment post-2009
- To understand the assumptions which had underpinned this practice
- To develop and implement a strategy to guide my business in this changed environment

While Fox & Slade (2014) see the motivation for undertaking a professional doctorate as personal and can discern no organisational impact, I would see the doctoral process as a failure if it had no impact on my business. The fact that I am self-employed in my own family business drives this motivation. On a personal level, my ambition is for "perspective transformation, causing [me] to challenge the assumptions that constrain the way [I] perceive, understand and feel about the world" (Stevens-Long & Barner, 2006, p.471). Hence the developmental goals contain both personal and professional elements.

1.2 Intended Audience

While this Portfolio is an academic work, observing scholarly standards, it is a practitioner doctorate. It has its roots in practice and the primary aim is to develop practice. It is intended to produce actionable knowledge, of use to both academic and practitioner communities (Coghlan, 2007). By identifying the challenges to the limits of my meaning system and how I sought to address them, I provide a guide to practitioners facing similar challenges.

Therefore, the intended audiences are:

- Practitioners operating in a family business environment;
- Practitioners operating in a commoditised industry with strong competitive forces, especially the SME sector of those industries;
- Trade associations representing the above practitioners;
- Academics with research interests in the above areas;
- Professionals acting as advisors to these practitioners;
- Policy makers with an interest in the development of the SME and family-owned sector of the economy.

While practitioner-focused, this work also helps to address calls for research in academic literature. In their review of family business research, Fletcher et al (2016) call for qualitative research at the firm level, to gain a deeper understanding of family business and its processes and of industry–specific aspects of family business. Similarly, in a review of strategy research, Whittington (2004, p.5) identifies a need for strategy research to be more focused on improving practice, highlighting that "practitioners self-investigation [is] most likely to yield the deepest insights into the nature of practice and the possibility of its improvement".

1.3 Research Methods

Overview

As this Portfolio uses my own practice as a source of data, it is appropriate that I adopt a qualitative research approach based on the interpretive tradition. Denzin & Lincoln (2005) distinguish qualitative research from its quantitative counterpart in its acceptance of post-modern sensibilities, capturing an individual's point of view, examining the constraints of everyday life and in securing rich descriptions.

Qualitative research is well suited to the study of process, for inquiry into the how and why of a situation (Barbour, 2000). As this Portfolio is concerned with a process of adaptive change and how this can be achieved, a qualitative approach is the most suitable.

The overall approach to this Portfolio uses several of the research approaches identified by Guest et al (2013), namely:

- Phenomenology which focuses on individual experiences and uses text as a proxy for human experience- it is used throughout the Portfolio;
- Ethnography which is cultural in nature, looking at shared meanings and practices between participants in a social system- it is used in the explorations in Essay Two;
- Narrative analysis where narratives and stories are used as a source of data, such as the learning diary used as a source of data for this work. It is also evident in the narratives used in Essays One and Three. Hamilton et al (2017) note that narratives are useful in examining families in business and their strategic behaviours over time, two particular themes in this work.

These approaches complement the objectives of this work and can be seen in use throughout this Portfolio.

1.3.1 First Person Research

I use first person methods in using the above research approaches throughout this Portfolio. First person research is an emergent field within the broad field of qualitative research and has particular relevance for my research. This is best

understood as the researcher being both the subject of the research and the observer, with the self used as a source of data (Duncan, 2004). Kordes (2013, p.373) believes that first person research has its primary use as a research method in the empirical research of experience and offers "the only chance for truly in-depth insights into our consciousness". As my work is primarily focused on the exploration of personal experience, I believe that this is an appropriate research approach.

Based on personal experience and with self-generated data, the field of first person research has attracted its critics and I must be cognisant of these concerns to ensure that this work has academic rigour. Holt (2003) observes that this field attracts academic suspicion due to its inherent subjectivity contravening certain qualitative research traditions. Delamont (2007) objects to the first person tradition on the basis that it is intellectually lazy and lacks scientific merit. Bullough and Pinnegar (2001) emphasise that given the centrality of the researcher self in the research, care must be taken to ensure quality and to ensure scholarly standards are met. They emphasise the importance of the authentic voice which I interpret as ensuring that the experience of the researcher is reported with sufficient detail and reflection that the reader can relate to the issue under discussion. Indeed, both Riessmann (2002) and Feldman (2003) link the validity of a first person study to its believability and trustworthiness. Walford (2004) highlights the issue of relevance in first person studies in terms of the importance of the subject and the contribution of the conclusions to existing knowledge. I see this as a critical factor in my overall portfolio in ensuring that my work seeks verisimilitude, i.e. application to a wider audience (Ellis et al, 2011). Clandinin and Connelly (1991, p.277) comment that "something of the spirit of action of the participants, practitioner and researcher needs to find a place in the research", which is particularly relevant to this Portfolio.

The strategies proposed by Tenni et al (2003) to ensure quality are in evidence as I research my own professional practice. These are:

- The creation of authentic data with thick descriptions of my professional development so as to provide context to these descriptions.
- Availing of appropriate supervision and collaboration with my learning cohort to ensure findings and conclusions are properly formulated and presented.
- Using theory to challenge assumptions about myself. In this case, the Adult Mental Development theory of Robert Kegan (1982, 1994) is among those employed.
- Taking personal risks in unearthing the assumptions to which I am subject in order to discover myself in my own practice.

The first person research process in which I am involved corresponds to what Torbert et al (2004, p.19) refer to as "action enquiry", a process of transformational learning. The authors view first person action enquiry as a "kind of super-vision in the midst of action that simultaneously learns about the developing situation, accomplishes the priority tasks and invites re-visioning of the task" (p.55). My research is best characterised as utilising a first person action research approach.

1.3.2 Action Research Methods

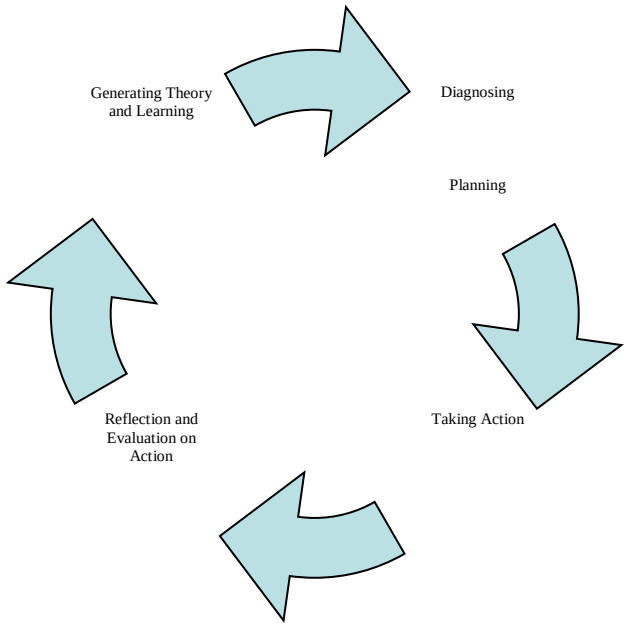
The action enquiry described above is part of the action research family, pursuing action and research outcomes simultaneously. Action research is focused on improving practice, creating knowledge and generating theory (McNiff & Whitehead,

2010). The action research process, where knowledge is derived from practice which is informed by knowledge, consists of iterative cycles comprising:

- Diagnosing/Enquiring
- Action planning
- Taking action
- Evaluating action and reflecting on outcomes
- Generating theory and learning (From O'Brien, 1998)

The various stages involved in the action research cycle are depicted in Figure 1:

Figure 1: Action Research Cycle



Source: Adapted from Coghlan & Brannick, 2014

Action research can be seen as a mechanism for embedding knowledge in practice by means of self-development (McGrath & O'Toole, 2012). This Portfolio is constructed as an action research project with the ultimate objective of enhancing my management practice. Each of the Essays in this Portfolio corresponds to different phases of this

action research cycle. The Professional Development Review in Essay One comprises the constructing phase and also adds context and purpose (Coghlan & Brannick, 2014). The Reading for Change Essay covers the planning action phase. The Transforming Practice Essay comprises the taking action and evaluating action phases. Finally, I use the Portfolio Conclusion to generate theory and learning, in the form of implications for practice and contribution to research.

In addition to the primary action research cycle, a number of sub-cycles are visible throughout this research, particularly in the Reading for Change and Transforming Practice Essays. These action research projects also combine elements from the case study approach (Yin, 1981). These integrate with the transformative purpose of the overall project.

1.3.3 Research Design

After locating the ontological field of my work, it then falls to consider the resultant research design. All research papers follow a basic design. The factors to be considered in research design include (Devers & Frankel, 2000; Groenwald, 2004):

- Research paradigm or question;
- Research methods and tools to be employed;
- Sampling plan to accumulate data;
- Methods of data collection;
- Analysis and interpretation of data;
- Ensuring validity and truthfulness;
- Ethical considerations.

I have already discussed the overall research approach and I deal with the remaining issues in the succeeding sections.

All research begins with a research question, a focused topic chosen to be of interest to readers (Booth et al, 2003). My research question focuses on my practice, how by engaging in a process of adaptive change I can increase my effectiveness as a practitioner. At the outset of my studies my research interests were:

- Succession in family business with a focus the successor experience and how this impacts upon management practice, i.e. to examine and reflect upon my experience in light of what is known about this area.
- Strategic management, concentrating on positioning and focusing a family owned business in a fragmented, commodity industry
- Adult mental development with a focus on increasing mental complexity how this can impact on professional effectiveness.

I use the Professional Development Review Essay in this Portfolio to refine these general topics into my developmental goals and generate specific research questions.

1.3.4 Data Collection and Research Tools

The role of critical self-reflection as developed by Schon (1983) as a method of data collection in first person research is emphasised by many researchers in the action research literature (Burgess, 2006; Coughlan &Coghlan, 2002; O'Brien, 1998). The focus is on both research and knowledge creation, so that reflecting on practice and modifying it in light of that reflection becomes an intrinsic part of the research process (McNiff and Whitehead, 2010).

Action research allows for different tools to be used in the data collection phase of a research project. It shares many of the characteristics of first person research. O'Brien (1998) identifies suitable qualitative tools such as:

- Keeping research journals
- Document collection and analysis
- Participant observation

Coghlan (2007) observes that first person practitioner research is generally recorded through autobiographical writing. Data is collected and sourced from personal experience. In my case, the principal research resource and method of data collection is a Reflective Journal. In this, I will record instances of practice and my reflections on them. Mezirow (1991) identifies three types of reflection- content, process and premise- all of which are relevant. I focus most on premise reflection, which questions underlying assumptions and perspectives. I record specific learning events and experiments in changing my management practice. I collected company records and industry and general economic reports to provide context to my reflections. The development of critical reflection, assisting students to challenge assumptions about how they perceive the world, is seen as an important goal of doctoral studies (Stevens-Long & Barner, 2006).

I use the Reflective Journal to record my journey through the research process. I document my readings around my research interests together with my reflections on them over the period 2014-2017. The data is primarily self-generated, a defining characteristic of the first person research approach. Having written down observations of practice, I use the journal to reflect upon these and draw out understandings. Drake (2011) observes that in insider research, "newness of knowledge … comes from

combining understandings from professional practice, higher education practice and the research project" (p. 2). It involves documenting everyday practice and provides a starting point for analysing these in greater depth.

The journal is a primary source of data for this thesis, along with company records. However, it is the reflections upon the incidents and observations described in the journal that form the basis for this thesis. For this to be effective, it is imperative that I develop my reflection skills. Brookfield (1995) regards the development of critical reflection skills as a key purpose of doctoral education. In his view, critical reflection helps develop a rationale for practice and helps the person take informed action; the purpose of critical reflection is to recognise and research assumptions underpinning thoughts and actions. Anderson & Herr (1999) reinforce the importance of the Reflective Journal serving to monitor the transformative change process, which they see as adding catalytic validity, i.e. the transformative potential, to the work. Writing the Reflective Journal serves as reflective practice in that it involves noting observations, writing out thinking at the time and drawing out the significance (Stephens & Margery, 2015). The use of reflection draws out learning from experience (Thompson & Thompson, 2008). Compiling this journal is one of the challenges for me as a novice researcher. Working as a practitioner, the focus is on daily activities and the opportunity for reflection is generally absent. There is a focus on operational issues and my Professional Development Review illustrates how this leads to the danger of overlooking strategic issues.

Brookfield (2009) sees critical reflection as involving the questioning and, if necessary, reframing of assumptions. This is a four stage process, involving:

- Identification of assumptions;

- Assessment of accuracy;
- Taking differing perspectives on assumptions;
- Take informed action.

The level of assumptions primarily being studied in my professional practice are hegemonic assumptions, those which I believe constitute common sense (Brookfield, 1998). I am primarily interested in the assumptions inherent in my management practice. I discuss the nature of assumptions in Section 3.4. In particular, the focus of the action research projects in Essay Three involves challenging the prevailing assumptions in our industry. To Brookfield, critical reflection happens " when we unearth and challenge assumptions that undergird our actions and practices, primarily by viewing those through the four lenses of subordinate's eyes, colleagues' perceptions, personal experiences and theory (1995, p. 59).

The Reflective Journal serves as a starting point for the process of 'assumption hunting' and moving from causal to hegemonic or paradigmatic assumptions. Fook (2007) highlights two stages of critical reflection, namely:

- Uncovering assumptions;
- Turning this awareness into new ways of understanding practice.

I use my Reflective Journal in this manner throughout my studies. Extracts from my Reflective Journal are presented throughout this Portfolio and I post a longer extract in Appendix 5.

Development of Practice

The purpose of reflection and the use of the Reflective Journal are to draw out learning from my experiences. Adopting this perspective will involve using different angles for observation and interpretation. The study of the characteristics of practice,

which Kemmis (2009) identifies as sayings, doings and relatings, provide a valuable perspective, which I will particularly use in reviewing the action research projects undertaken in Essay Three. I examine the individual and social aspects of these practices and the practice architectures, i.e. the arrangements that hold these practices in place (Ronnerman and Kemmis, 2016). The risk I must address is in my work over-focusing on the sayings and doings, i.e. what happened, and insufficient focus on the relatings, i.e. the wider implications and significance. Kemmis (2001) highlights practitioner action research, in the manner in which I pursue my work, as a form of self-education and as a means of seeing how goals and objectives are shaped by ways of seeing. The development of expertise through engaging in an adaptive change process provides an alternative perspective on the journey from acclimation to proficiency (Alexander, 2003).

1.3.5 Truthfulness and Validity

A crucial part of any research design is the strategy employed to ensure truthfulness and validity. There appears to be little agreement in the literature as to what constitutes validity in this field (Winter, 2002). The principal issues concerning validity in first person research are outlined below. Further issues concerning first person action research are addressed in Section 1.3.6.

The insider involvement inherent in first person action research gives rise to issues of subjectivity and scientific merit, as is common in all areas of first person research. In this respect, Sussman & Evered (1978, p.601) distinguish action research as being "a kind of science with a different epistemology that produces a different type of knowledge". Validity in action research can be seen as the extent to which the

outcomes developed actually solve the presented problem and the quality of the inquiry process (Watkins, 1991). Winter (2002, p.146) defines authenticity in action research in terms of the work having epistemological validity and cultural authority "insofar as it gives direct expression to the genuine voice".

The strategies I propose to adopt to ensure truthfulness, academic merit and validity in my work are adapted from the criteria outlined by Bullough and Pinnegar (2001), i.e.:

- Studies should ring true and enable connection;
- Studies should promote insight and interpretation;
- Authentic voice of the researcher is a necessary but not sufficient condition for scholarly standing;
- The researcher has an obligation to seek to improve the learning situation for both the self and others;
- Studies should portray personal development.

The main challenge in addressing these criteria is that the work is not simply descriptive or superficial but that it is sufficiently analytical and reflective to have academic merit. I must be conscious of the need for thick descriptions and placing my experiences in context so as to make my personal experiences relevant to a wider audience (Tenni et al, 2003).

The particular criteria I use to ensure quality and validity throughout this work are in line with those proposed by LeRoux (2017):

- Subjectivity in that the self is visible in the research across the three Essays;
- Self-reflexivity where there is evidence of the researcher's role in relation to the research- this is evident in the action research cycles in the Essays;

- Resonance where there is engagement with the identified audience throughout the work and with the implications discussed in the Portfolio Conclusion;
- Credibility with evidence of verisimilitude- this is highlighted in the Portfolio Conclusion;
- Contribution to scholarly knowledge- discussed in the Portfolio Conclusion.

1.3.6 Further Validity Issues in Insider Action Research

As I am undertaking research work within my own organisation, I am conscious of the inherent risks to validity and quality. I am conscious that in a small family business with a limited top management structure, I have inordinate influence on the business. Being in a position to almost unilaterally decide company objectives and strategy brings both benefits and risks.

Coghlan and Shani (2014) outline concerns of pre-understanding, role duality and organisational politics which are inherent and have the capacity to undermine quality in insider action research. Pre-understanding refers to the existing insider knowledge of the researcher which leads to the danger of taking much for granted and not being sufficiently inquisitive. Role duality is concerned with balancing the dual roles of executive and researcher, while managing organisational politics addresses the power and positionality issues.

I follow the criteria of Coghlan and Shani (2014) to mitigate these concerns. The dimensions under which I group them are (Coghlan & Brannick, 2014):

- Knowledge of the internal and external context of the initiative and how this context is captured and assessed

- Quality of collaborative relationships between the researcher and the system being researched, in this case my management practice
- Quality of action research process in terms of documenting cycles of planning, taking action, observing results and reflection
- Evidence of the dual outcomes of development of self-help and creation of actionable knowledge.

The following table illustrates how I address these issues:

Table 1: Managing validity in insider action research

	Pre-understanding	**Role Duality**	**Internal Organisational Politics**
Context	Capturing data in holistic way	Implementation of action and reflection cycles	Managing politics of how content analysed and interpreted by self and others
Collaborative relationships	Developing spirit of questioning and inquiry	Ensuring reflection and inquiry don't get squeezed out by action	Managing politics of what is included or excluded in research
Research process	Design and implement action and reflection cycles	Maintaining role of practitioner and researcher	Managing politics of action and reflection
Outcomes	Develop capabilities to change and learn	Develop capabilities to change and learn	Creation of knowledge that is actionable by self and other practitioners

Source: Adapted from Coghlan & Shani, 2014

Given the nature of my organisation, I am most concerned by the issues of pre-understanding and role duality. By continually identifying, questioning and testing my assumptions, both business and personal, I manage the issue of pre-understanding. Having awareness of being both researcher and practitioner and being cognisant of the need to interact with a wider audience and generate actionable knowledge for my

community of practitioners, allows me to manage the role duality issue. Given the lack of a senior management structure in my business, I view the political issues as being concerned with power relationships (see Section 1.3.7). I focus on the authentic voice in reporting on my experience as helping ensuring understanding and quality throughout the action research process. This involves continually questioning my own motives and reflecting on the value of what I am doing. I portray the behavioural and management changes on a general level, so as to have wider applicability to my intended audience. I use these criteria in the design and implementation of the action research cycles throughout this Portfolio.

1.3.7 Ethical and Power Issues

Along with validity, the role of ethics in this research must be considered. Similar to other aspects of first person research, the emphasis of ethical issues is different from other research approaches. Informed consent, confidentiality and anonymity are important ethical considerations in all research settings. However, given the iterative nature of action research, where the research evolves in directions that may not be envisaged at the outset, particular ethical questions arise, such as that it may not be possible to obtain fully informed consent in advance. It is therefore critical to ensure that participant confidentiality is maintained and that participants cannot be identified. In the course of my work, I have collaborated with individuals inside and outside my company. Where these perspectives are incorporated into this thesis, I have made these people aware of the purpose of my work but have sufficiently anonymised their input as to ensure confidentiality and anonymity.

Zeni (1998) observes that insider action research does not lend itself naturally to conventional ethical considerations. Holian and Coghlan (2013) consider role duality

to be a key ethical concern in insider action research. Combining the roles of both executive and researcher leads to difficult choices about what material to include and what to omit. This is particularly the case where confidential personal or commercial information may be obtained in the course of the research. I must be conscious of my position as both researcher and executive and be aware of any conflicts between these roles. I am conscious in my research of the conflicting demands of presenting enough data to make the research credible and understandable and the need to preserve commercial confidentiality. Ethics in action research need to be continually negotiated and discussed (Drake, 2011, Williams & Prosser, 2002) and this awareness must be present throughout this work, particularly when engaging with others.

Coghlan & Brannick (2014) advocate attention to data and processes as a preliminary step in ensuring ethical research. I need to be aware of the choices I make throughout the research and be transparent about these. I must communicate my choices and be clear as to why these choices were made.

Politics and Power Relationships

Related to the ethical issues to be addressed is to consider the power dynamics in this work. In my dealings with staff, I must be conscious that I am their manager and that responses to information requested will take cognisance of that reality. I must be aware of the disparities in power relations. (This is particularly appropriate during my work on the Immunity to Change process in Section 4.3 and Appendix 4).

In addition, being in a position to dictate company strategy removes much of the negotiation present in many action research projects. However, I must be conscious of the extent to which the power relationship impacts on political relationships both

within and outside our company. Herr and Anderson (2008) refer to the extent of collaboration and reflection as conferring democratic and dialogic validity on the work and providing a means to address power relations. By collaboration in the action research projects, adopting contrasting perspectives and engaging in reflection on the outcomes, I add to the rigour of my work. Brookfield (1995) observes that reflection becomes critical when one of the purposes is to understand how considerations of power undergird, frame and distort processes and practices. In particular when using the lens of subordinate's eyes for reflection, the issue of power is central.

1.4 Adult Mental Development

The professional development review portion of my Portfolio is undertaken by reference to the Theory of Adult Development as outlined by Robert Kegan (1982, 1994). [1] Kegan's work focuses on transformation and the complexity of an individual's meaning making system. Kegan (1994, p.29) quotes Perry (1970) in saying "organisms organise…and what a human organism organises is meaning". Throughout this Portfolio, I use Kegan's concept of a meaning system as being "the organising principle we bring to our thinking and our feelings and our relating to others and our relating to parts of ourselves".

In this introduction, I outline those key aspects of Kegan's theories relevant to this Portfolio, namely the adult orders of consciousness, subject-object theory and the immunity to change framework (Kegan, 1994, Kegan & Lahey, 2009).

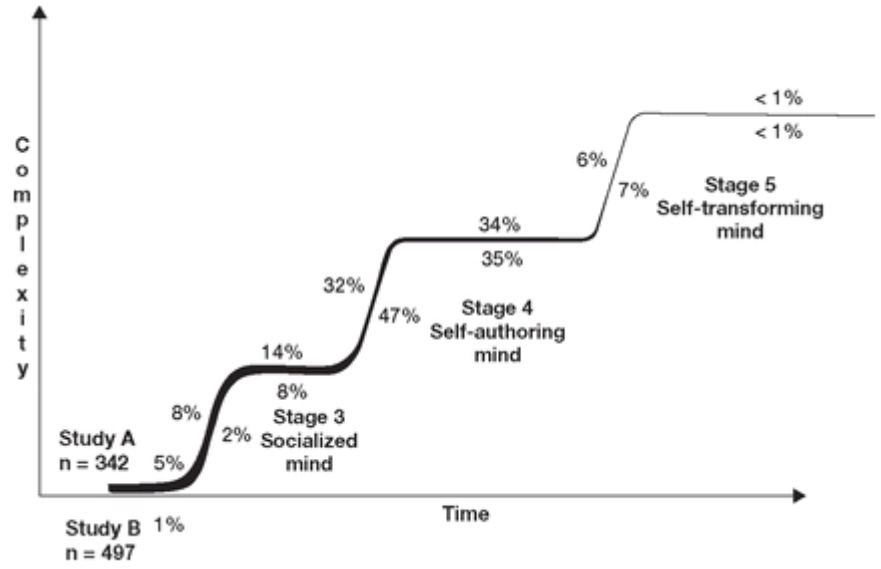
[1] Robert Kegan is Professor Emeritus of Adult Learning and Professional Development at the Graduate School of Education at Harvard University.

Kegan (1994) outlines that mental complexity evolves over time and is represented as a series of qualitatively different stages or orders of consciousness. He identifies three adult orders of consciousness:

- Third order: Socialised mind which is generally reached in adolescence where persons have internalised one or more systems of meaning, are able to think abstractly, can reflect on their actions and have a loyalty greater than their own needs.
- Fourth order: Self-authoring mind where a person constructs an over-arching ideology complex in nature, with an internal self-governing system. Kegan (1994) believes that many of the challenges of modern life demand this fourth order meaning making so that a person operating at a lower level confronted by these challenges will be overcome and become demoralised.
- Fifth order: Self-transforming mind which is reached by very few and not before middle age. Kegan (1994) sees this as a post-modernist level where persons have learned the limits of their inner system.

Empirical research by Kegan and his associates (Kegan & Lahey, 2009) indicates that an ever decreasing proportion of the adult population progress through the stages of complexity. This research also reveals that adults plateau at each level for a considerable period and that many remain at the socialised level throughout their lives. This various stages of mental development and the corresponding proportions achieving these can be depicted as follows:

Figure 2: Adult levels of consciousness along with percentages of population at each level



Source: Kegan & Lahey (2009) p. 28

A central tenet of Kegan's work relates to the movement from subject to object. Things to which you are subject are "those elements in our knowing that we are identified with or embedded with" (Kegan, 1994, p. 32) while those that are object refer to "those elements of our knowing that we can reflect on, look at, internalise" (p.34). Kegan (1994) argues that transformation occurs when we develop the ability to step back and reflect on something that used to be subject and move it to something we can look at, i.e. move it to object. The most profound transformation is the movement in an entire meaning system. He views subject-object theory as a "sympathetic guide to the long and arduous labour of gradually constructing a post-modern view of the world" (p.331).

Similarly, Berger (2004) observes that as elements of understanding move from subject to object, a person's meaning system becomes more complex. Therefore, a personal transformation project may incorporate identifying those elements to which one is subject and proceeding through a developmental process to move these to object.

I use the Professional Development Review element of this Portfolio to trace the development of my meaning system from adolescence and identify key episodes that have shaped the theories underlying my management practice. I use Kegan's subject object theory to identify those elements to which I am subject. The method I use as a developmental tool to is the Immunity to Change framework developed by Kegan & Lahey (2009). This uses a four step process to identify a "Big Assumption" (op. cit. p. 58), something to which the person is subject and is preventing him accomplishing an identified improvement goal. This framework provides a means of working through that assumption by a process of tests that serve to invalidate the Big Assumption and is intended to culminate in it no longer being valid or holding back the individual. The identification of these assumptions and subsequent tests to determine their validity are seen by Kegan as key developmental markers on the transformative journey.

I combine the theories of Kegan (1982, 1994) with the idea of reflective practice as outlined by Schon (1983). Schon observes that when a practitioner is unaware of the frames for a role, he does not attend to the ways in which he constructs reality. I engage in reflection on the events which have guided the evolution of my meaning system. I incorporate the work of Brookfield (1995) by engaging in critical reflection to unearth my assumptions. I believe that such reflection assists me in surfacing the

theories and assumptions to which I am subject and generates data that is essential to documenting the process.

1.4.1 Implications for Practitioner Research

I concur with Helsing et al's (2008) observation that professional development initiatives that are informed by a theory of adult mental development can support transformative change within the context of improved work performance. Gambrell et al (2011) note that Kegan's approach can be used as a method to explain why some practitioners exhibit more transformative behaviours than others.

Berger & Fitzgearld (2002) review Kegan's theory from the perspective of applying it to the demands of modern executive life. They note the following (p. 44):

- The amount of complexity that an executive role requires is variable- most executive roles require fourth order meaning making;
- The amount of complexity that an executive role requires is probably increasing- due to greater levels of change and uncertainty;
- The match between an executive's complexity of mind and the requirements of the role are critical for both effectiveness and job satisfaction;
- Development of an individual's complexity requires both challenge and support.

This supports my view that increasing my level of mental complexity can have a positive impact on my professional effectiveness. There appears to be a definite link in the literature between effectiveness as a practitioner and level of mental complexity (Helsing et al, 2008; Kegan & Lahey, 2009; Helsing & Howell, 2014). The increasing complexity and pace of change in the workplace would suggest a need for a higher

order of consciousness to operate effectively. This emerges as a primary goal at the conclusion of my Professional Development Review. Kegan and Lahey (2009) outline a process of adaptive change to enhance mental capacity and I propose to use this framework to engage with my assumptions.

1.5 Structure of Portfolio

This Portfolio is structured into three main Essays which chart my progress through the stages of the transformational process,

The first essay is a Professional Development Review. This traces the development of my meaning making and management practices using Kegan's (1982, 1994) theories as an apparatus of thought, i.e. a framework for organising the essay. I discuss my formative experiences encompassing family background, education and professional training. I then progress by reflecting on my return to the family business in 1998 and my experiences in becoming the successor to my father in 1999. This reflection uncovers the theories and assumptions underlying my management practice. This in turn leads to the identification of professional development goals which are the focus of the remainder of the Portfolio.

The second Essay, Reading for Change, is where I engage with alternative meaning makers in the areas I have selected for my developmental goals. By exploring and engaging with readings in these areas, I focus on expanding the complexity of my own meaning making.

The third Essay, Transforming Practice, applies this expanded meaning making system to my management practice. It highlights the impact on my professional effectiveness of selected changes. I describe a number of initiatives undertaken arising from the Reading for change programme and their impact.

I conclude this Portfolio by reflecting on the effectiveness of my more complex meaning making and its impact on my professional practice. I broaden my conclusions to highlight the wider implications for practitioners. I also address the contribution of my work to scholarship in the areas of family business and strategic positioning and suggest possible future areas of research.

Professional Development Review

2.1 Introduction

This Professional Development Review represents the culmination of my first year of studies and constitutes the first important milestone for me in the programme. I outline the goal and purpose in this section and the research methods adopted in Section 2.2.

In assessing my personal development and the development of my meaning making system, I consider three major influences to be growing up in a family business, my sports career and my early career in a professional services firm. I cover these in Section 2.3

In Sections 2.4 and 2.5 I consider my career as owner manager of a quarrying and concrete products company in terms of my return to the family business, cultural and personal issues encountered, professionalising the business and my management role. In Appendix 1, I outline background information on the Irish aggregates and concrete industry which places in context items referred to in the body of this review. I devote Section 2.6 to identifying key emerging themes.

This Professional Development Review is the starting point on a transformational journey targeting increasing my mental capacity and the complexity of my meaning making. In section 2.7, I review my current position and transformational developmental goals. Kegan (1994) defines transformation in terms of changing "not just what one knows but how one knows" (p.17) and considers that development of this type requires a blend of challenge and support. He sees the movement towards a

more complex meaning system as requiring a supportive environment involving "a bridge which must be well anchored on either side" (op. cit. p. 37). I conclude this Essay by outlining my change commitments and developmental goals.

Role and Purpose

The role of this Essay is to outline and review the development of my professional career and the meaning system through which I operated from adolescence through to the time of starting my doctoral studies. I trace my career and personal development through formal education, early professional training and then to my career as the owner/manager of a family owned business. I use a learning journal to record and reflect on my experiences. The material in this journal provides the foundation of this Essay. The purpose of this review is to uncover the theories through which I operated and to identify themes that have run through my professional career. I examine significant episodes and experiences that shaped my meaning system. In terms of subject object theory, I attempt to identify those things that "have me" (Kegan, 1994, p.32), i.e. those to which I am subject.

This personal development review is a narrative based on reflection upon my career to date. Primarily, I use the Theory of Adult Mental Development of Kegan as the framework to conduct this review. To complement this, I use the work of authors from a similar perspective to assist me. Mezirow (1991) notes that the more significant learning experiences in adulthood involve critical self-reflection. Schon (1983) speaks of the concept of a practitioner reflecting in action and becoming in that context a researcher. In this Essay, I reflect on key junctures in my professional development. Taylor (2006) views autobiography based assignments as a form of self-reflection that links to transformative learning. This Professional Development

Review is an attempt to reflect on my practice and use these reflections as a starting point on my transformative journey.

2.2 Research Approach

A Professional Development Review is by its nature a qualitative research endeavour with a focus on qualitative questions. Qualitative research revolves around collecting and working with text, images or sounds, allows for different means of data collection and analysis and allows for the diversity of theoretical and epistemological frameworks (Guest et al, 2013). I have used a Reflective Journal to gather data and reflect upon it as a source for this Essay.

This Professional Development Review is structured as a first person narrative. Dalpiaz et al (2014) highlight narrative as an appropriate method for examining family business successions, which is one of my themes of interest. I use this Essay to gather relevant data on the development of my meaning making for use in subsequent Essays.

I use the validity criteria of subjectivity, self-reflexivity, resonance, credibility and research contribution of Le Roux (2017) to anchor this essay in terms of academic rigour (as set out in Section 1.3.5).

The overall Portfolio is constructed as action research transformation project. This Essay constitutes part of the planning aspect of the overall project. In addition, the narrative analysis provides context and purpose to the planning stage of the overall project which Coghlan & Brannick, (2014) see as a preliminary step in the action research process.

2.3 Formative Experiences in Meaning Making

2.3.1 Family Background

Kegan refers to the period between ages six to ten and adolescence as creating the mental organisation of "durable categories" (Kegan, 1994, p.22), i.e. those things in the world that retain the same qualities over time. In my case, I spent those years immersed in a family business culture. My parents owned a quarrying and concrete products business with a number of locations in Tipperary[2] [3] . The family business was a huge part of my life throughout adolescence. Discussions on business matters were common at family gatherings. My brothers and I worked in the business during school and university holidays. We worked in every area of the business, mostly driving machinery. My parents believed that it was essential to know the business at all levels in the eventuality that we would return to manage it in the future. I regard this as a key influence in my professional development as I was exposed at an early age to the commercial realities of self-employment and the work ethic needed to succeed. The ethos of showing example and providing leadership was firmly ingrained during adolescence into my meaning system as part of the "concrete world" (Kegan, 1994, p. 23) which I had constructed.

My father started in business in 1959 in partnership with his neighbour. They began selling gravel to local builders and progressed to making concrete blocks. They were the first in the area to manufacture blocks and soon developed into a successful enterprise, serving customers in a forty mile radius around Tipperary. My father had been trained in bookkeeping during his employment with the Post Office and

[2] Tipperary is a rural area in Ireland, situated approximately 150km south west of Dublin.

[3] I outline background information on the quarry and concrete products industry in Appendix 1.

managed this aspect of the business while his partner managed the operational aspects. On the untimely death of his partner in 1976, my father chose to manage the business on his own.

Although my father didn't complete secondary school, both he and my mother placed strong emphasis on education. It was made clear to us that entry to the family business would be strictly on merit and on the basis of being able to contribute to the success of the business. We would be expected to obtain a professional qualification and external work experience if we wished to return to the business. In addition, a suitable management position would have to exist and we would have to be competent for that role. During adolescence, I became aware that our parents' biggest fear was that the next generation would not be competent to manage the business and that it would fail within their own lifetimes. This has been a significant factor in the development of my own meaning making and value system. It is natural for a child to want to live up to their parents' expectations, but being expected to manage the family business adds to normal pressures (Birley, 2001; Fleming, 2000). Kegan (1994) observes that making meaning where expectations of others are prevalent is characteristic of third order or socialised meaning making.

2.3.2 Sports Career

I have played Gaelic sports since childhood[4]. My involvement started in primary school, continued through my local club and then on to inter-county level. I also joined clubs abroad when I worked overseas. I played for my county, Tipperary, at all

[4] Gaelic football and hurling are the national games of Ireland. Inter-county is the highest level of competition within Gaelic sports.

levels until my mid-20's, when work commitments intervened. I also played at university level where access to top inter-county coaches and the opportunity to train with leading players from other counties allowed me to develop as a player. The professionalism of these players was a significant developmental influence, in that it showed me the level of performance to aspire to if I wanted to be successful at the top level.

The training regime required to compete at senior inter-county level was quite arduous and instilled a discipline in players. In terms of meaning making, the main influence was in the teamwork mentality that it fostered. I was encouraged to think in terms of the team, in terms of not letting down the team and being a cog in a larger wheel. It developed a loyalty to the group and a tendency to subordinate personal goals to the goals of the group. In terms of my management practice, I have always seen my sports career as making me aware of the importance of teamwork and a team leader leading by example to establish a benchmark for performance. I see it reflected in business terms by Penrose's (1959) proposition of a firm being a collection of productive resources and enterprising management, similar to a team leader, being the source of growth for the firm. It also finds expression in modern concepts of co-creation (Gratton, 2014) and open innovation (Chesbrough, 2004) which emphasise the benefits of collaboration and sharing in business performance.

2.3.3 Professional Training

At university I studied commerce. I chose this path as I was quite numerate and was strong in accountancy related subjects. Attending university was my first time living away from home. Most of my school friends attended other third level institutions, so I had to establish a new circle of friends. It was also my first experience of mixed-

gender education. In addition, I travelled to the United States for two summers while in university and worked in the construction industry. I completed a Bachelor of Commerce degree in 1992. I was subsequently sponsored by my future employer to enrol in graduate studies and obtained a Masters in Accounting degree in 1993. These experiences of living away from home and undertaking third level studies broadened my horizons and enabled me to become more independent. The experience of foreign travel fostered a broader outlook and openness to new ideas and cultures. This resonates with Baxter-Magdola &King (2007) who observe that university study and experiences from that time can expose a person to multiple perspectives and diverse viewpoints and see this process as an important element of development.

I joined the Big 6[5] accountancy firm Arthur Andersen as a trainee accountant in the audit division. Trainees were sent to a European training centre for induction. Though the stated purpose was to imbue us with the technical skills required for audit practice, the unspoken purpose was to inculcate us in the company philosophy. Reflecting on those initial weeks, I realise that values such as loyalty to the firm, its methods and philosophy were an intrinsic part of the training. We were encouraged to think of ourselves as an elite group. Given my background in team sports, I can see that I was receptive to this notion of becoming part of and contributing to the success of what I saw as a new team.

This training forms what I now recognise as the third major socialising influence on the development of my meaning system. Kegan (1994) sees this order of consciousness as developing a cross-categorical meaning system, where there is a

[5] The Big 6 accountancy firms (as existed in 1993) were a group of multinational professional service entities which dominate the accountancy profession. They included Arthur Andersen, KPMG, Price Waterhouse and others. Due to a series of mergers, they are now (2017) the Big 4.

"subordination and integration of durable categories into a new form capable of simultaneously relating one durable category to another" (p. 28). Reflecting on this, I can see the extent to which I was subject to the expectations of my employers and how my self-esteem was tied to the approval of superiors. As my experience has developed over the intervening years, I can now move this to object, to look at these expectations in light of what I had learned about the audit industry and the business world in general.

I initially learned that success in the eyes of my superiors was defined as exceeding client expectations. This was not straightforward. Whereas company law defines an auditor's responsibilities in terms of company shareholders, the reality for all audit firms is that company management are regarded as the client as they in practice hire and fire auditors and set audit fees. This led to management's expectations being conflated with client expectations, giving rise to obvious conflicts of interest, as the purpose of an audit is to report to shareholders on the stewardship of management. On numerous occasions, I saw issues arising during an audit being resolved in line with senior management wishes so as not to damage the business relationship. It was an introduction to the commercial realities of auditing and at odds to what my theoretical understanding of the position was. At the time, my meaning making was not sufficiently developed to recognise these conflicting interests and I merely took this state of affairs as being the norm and did not question it. Reflecting on this now, I feel slightly uncomfortable with the compromises and can see how it led me away from auditing as a future career path. I recorded in my Reflective Journal that I can now see the ethical dilemmas inherent in auditing but at the time did not recognise these.

The training provided and the experience I gained during my training contract (1993-1996) was excellent. As auditors, we had unfettered access to senior client management. Even though technical proficiency in the minutia of auditing standards and company law was expected, I was also expected to take a broad view of the performance of the business and the relationship between this and the reported figures. The underlying principle was 'do the figures make sense in light of what else we know about the business?' I still use that phrase in my current position when reviewing a situation. It has led me in my practice to combine financial and non-financial information and to emphasise placing this information in a wider context before coming to a decision on a situation. I use this practice extensively in my current role in deciding on priorities and evaluating results and outcomes.

The other major benefit I took from those years was a focus on staff development. As I was once an inexperienced trainee reliant on more senior staff for guidance, as I progressed beyond my initial year in the firm, I was expected to develop junior staff by providing on the job training in auditing procedures to new staff. Our firm had certain milestones that were expected of all staff depending on experience and it was the job of more senior staff to ensure that junior staff reached those levels. A key aspect of the evaluation process for an audit senior[6], at the conclusion of each assignment, was the extent to which the skills of more junior staff were developed during that assignment. It required me to be attentive to the performance and training needs of staff and the importance of proper planning and management of assignments.

The culture of Arthur Andersen was very different to what I had experienced either in our family business or in my summer jobs in the construction industry. The

[6] An audit senior is a recently qualified accountant who is the day to day supervisor on an audit.

hierarchical management versus staff divide which I was accustomed to was largely absent. Senior management operated an open door and first name policy. The environment was more collaborative in nature and work was organised in terms of ever changing teams. It was a different environment than I experienced in our family company and on work experience. I have attempted to replicate aspects of this professional services environment in our own company (see Section 2.4.2).

Challenges during Professional Training

On completion of my training contract in 1996, I had completed my professional examinations and had earned my accounting qualification. I had the option of staying for a further period but decided to investigate other career paths. I had decided that working as an accountant in practice was not my preferred career. The continuous emphasis on client expectations limited autonomy and I found the work repetitive. There was an emphasis on strict audit procedures in accordance with the audit manual and clearly defined work programmes and schedules. I was encouraged to view audit issues in terms of the Arthur Andersen audit framework. Auditors were discouraged from departing from established procedures and practices. I felt that the firm should be more open to innovation and change, especially as the bulk of the work programmes and procedures we used were set in times of manually recorded accounts whereas we were now auditing computerised records. However, as a relatively junior member of staff, this suggestion was not taken seriously. Having being brought up in an entrepreneurial family business, I found the lack of interest in innovation and reliance on procedure to be frustrating and limiting.

One particular episode where I took the viewpoint of an entrepreneurial manager at a client company over the set procedures of his company which were clearly not working crystallised this frustration for me. I felt that the duty of the manager was to be as effective as he could be while my superior in Arthur Andersen felt our responsibility to the firm was to ensure that internal control procedures were followed. Reflecting on this episode now, I can see both points of view and the need to have a balance. However, at the time I viewed it as an indication that my mindset wasn't in tune with that required to advance in a career as an auditor. I also felt that my personal development required a less structured environment. The family business ethos in which I was reared clashed with the large company culture and I didn't feel comfortable in this environment. This contributed to my decision to leave the firm at the conclusion of my training contract.

Another area of difficulty I encountered was in reconciling my accountancy and sports careers. I had constructed these as sub-relationships within the cross-categorical mental structures within which I operated. My capacity to integrate these into a single complex relationship was lacking at that time. I struggled to fit in training time for football around my work commitments. Although the firm was quite supportive in my first year, as I assumed more work responsibilities, expectations of me grew and I found myself working longer hours on non-training days to compensate for time taken off for training. My on-field performances suffered as I had insufficient rest periods between training and I felt myself quite conflicted in trying to serve both masters. Baxter Magdola & King (2007, p.498) speaks of this stage of adulthood as being a "crossroads at which others' expectations and emerging values conflicted" and I can now see that this applied in my case. Upon promotion to audit senior in my third year

in Arthur Andersen, I took the decision to leave the Tipperary county football team to focus on work. I played football at the less demanding club level for that year.

These experiences provide examples of my meaning making at the socialised level. My identity was bound up between my work and sporting selves and I was unable to handle resulting conflicts. The only solution available to me at that time was to forgo one of the commitments. It was a classic case of "in over my head" (Kegan, 1994, p.188) in that there was a mismatch between mental demands and my capacity to process them. Kegan (1994) notes that to integrate two sub relationships such as these requires an ability to take as object one's cross-categorical structure, whereas if one is subject to these structures, one cannot integrate them. It was clear to me by the end of my contract that my future career would not be in professional services and I took the decision to leave Arthur Andersen.

2.3.4 Working and Travelling Abroad

After leaving Arthur Andersen in 1996, I travelled for a year while making up my mind about my future career. It was clear to me that while a career as an auditor was not for me, I had no preferred career in mind. A number of colleagues were working in Sydney, Australia at the time and indicated that there was on-going demand for qualified accountants in the financial services industry there. I obtained a working visa and relocated to Australia. I worked in a number of fund management institutions and banks on temporary contracts, in between periods of travel, until the end of 1997.

Even though it was at best treading water at career level, I consider it an important period of personal development. Through travelling through remote parts of Australia, I became more self-reliant. The experience of long journeys and waiting for

connections imbued a sense of acceptance and patience. Whereas previously delays and long periods of travel would have greatly frustrated me, now it was more of a case of facing situations on their merits. The experience of travel also forced me to become more social and outgoing as I was apart from my circle of friends and interacting with fellow backpackers from other backgrounds and cultures. In one sense, I was maturing; another way of approaching it was that my meaning making was becoming more complex by starting to see myself as "the constructor of an inner psychological life" (Kegan, 1994 p.133). I was beginning to create a larger context. The sheer distance from Ireland meant the creation of new support networks. It was the first time in my life that I was able to step back and not be beholden to where I had come from. I regard this as a significant period of "holistic mental growth" (op. cit. p.187) and consider it better equipped me for my future career. I consider that in this period I matured sufficiently to properly evaluate my career options and decide on the course of my future. Prior to departing for Australia, I was still in the mindset of a trainee accountant. Although I had developed skills and values, I did not consider myself as an adult professional. The period of living and working abroad broadened my horizons, developed my internal resilience and deepened my maturity.

2.4 Return to Family Business

The opportunity to return to the family business had been floated to me by my parents prior to my departure. I had worked in all areas of the business throughout school and university holidays and had kept up to date with its progress. My upbringing had conditioned me to regard running a family business as a viable career option; this was ingrained in my meaning making. I realised that I had become quite self-reliant and was content in my own company, that I preferred self-direction in my work and

concluded that self-employment was my preferred avenue. Given my involvement in the business from a young age, to a certain degree I had been preparing for joining the family business all my life. In addition, my father had reached retirement age and was looking to step back from day to day involvement in business matters.

This commitment to step away was important to me as I had been reluctant for to commit to returning to the family business, as I had seen in other instances the reluctance of a founder to relinquish control of a business which he had started. I had visited client companies during my time in Arthur Andersen where there was open conflict between a parent and child over the future direction of the business and had seen the detrimental impact on the performance of the business. On one assignment, we acted as expert witnesses in a legal action being pursued between siblings and a parent and I could observe the extent to which the business and its non-family staff were undermined by the conflict. I became aware of the importance of succession planning and also the extent to which human dynamics can overturn the best intentions of such a plan. These challenges, in practice, and other aspects of succession became apparent to me upon my accession to our family business.

2.4.1 Early Challenges on Return

I returned to Ireland in late 1997 and joined the family business. Contrary to my expectations, given that I was familiar with the company's operations and personnel, I found the transition to be extremely difficult. I felt uncomfortable coming from outside the company and suddenly becoming the manager of long serving staff whom I had known since childhood. I found it difficult to define the parameters of my new role as staff was settled and competent in their own roles. Given that the business was

operating profitably, there was an expectation amongst staff that I would not make any major changes to the operation of the business. However, one of the motivating factors in my returning home was to modernise the business and put my own stamp upon it. My father had suffered ill health over several years preceding my return and had consciously decided against modernising the production plant as he didn't want to constrain the next generation who may have had other ideas about the type of equipment required and its configuration. I detected a genuine apprehension among longer serving staff about the effect of succession, about whether the business could prosper post-succession[7].

The issue of finding my role and legitimising me as successor consumed my initial period. Using terminology of Kegan (1994), I define it as a search for meaning as the supports to which I had become accustomed in earlier jobs no longer existed. I suddenly had no peers within the company and was responsible for the agenda. A clear demarcation of responsibilities between my father and me and the transition from founder to successor was proving more difficult than either of us had anticipated. It was proving difficult for him to let go of operational matters and much of the staff still looked to him for guidance, even though he made it clear that he was in the process of withdrawing from day-to-day management. A pertinent example was when Ì proposed moving wage payments to electronic banking and several staff voiced their misgivings directly to him rather than addressing their concerns to me.

The eventual solution we arrived at to ease the transition was that I would focus on a number of modernisation projects for my initial year and re-familiarise myself with

[7] Research has shown that 30% of family business successfully transition to the second generation and only 10% to the third (Handler, 1994).

the workings of the company and allow staff to become accustomed to me as the new manager. On completion, we agreed that I would relocate to our other operation at Laffansbridge, approximately 20 miles away which would from then be organised and managed on an independent stand-alone footing. My younger brother was employed in a supervisory capacity there and we agreed that we should transfer between locations. The second operation had commenced in 1988 as a satellite plant but had sufficiently grown to the extent that it required management on an independent basis; financial management skills were required due to the retirement of the incumbent quarry manager and the imminent retirement of the office manager. An additional benefit was to allow me some space to experiment with some new ideas. Given that our home operation had operated successfully for many years and the staff were used to a particular system, there was a certain understandable reluctance to 'change a winning formula'. However, experiences in other companies and industries had convinced me that certain aspects of our operations were outdated and needed to be modernised in both plants but were acute at Laffansbridge.

The immediate challenges I faced were of an operational nature:

- IT infrastructure was outdated throughout the company and virtually non existent in our Laffansbridge plant;
- The processing plant at Laffansbridge was in need of replacement;
- Additional quarry land reserves were required along with planning permission for their development;
- Relations between the company, key staff and customers had become strained due to personality issues and differing perspectives; this relationship required normalisation.

The first, and for me the most critical, issue I focused on was to create a harmonious working relationship between staff and customers. This had suffered for a number of years, due to personality issues between some quarry employees and customers. It was particularly evident in the company's relationship with the local authority at the time, South Tipperary County Council, which was the company's largest customer. Dealing with this required me to spend a good deal of time visiting them and other key customers. These visits it allowed me the opportunity to explain our company's offering in the market place. Discussions with customers convinced me that personal service and flexible delivery schedules which a family owned business could provide were valued by certain segments of the construction industry *more than price*. This was particularly true of the SME and commercial sectors of the industry. The process of engaging with customers and processing their viewpoints into my own meaning system gave me an external viewpoint into the firm and a sense of the appeal of our company for different segments. It alerted me to the nature of the customer value proposition, although I was unaware of literature in this area at the time.

Beginning in 2002, it became necessary for the company to expand its land holding as its existing quarry reserves were almost exhausted. The process of acquiring land reserves and obtaining planning permission from the local planning authority was a considerable learning experience and lasted for 6 years. I had (naively) assumed that because we were the largest employer in the area, with approximately fifty staff directly and indirectly employed at the quarry, that expansion in the quarry would receive a broad local welcome. I was surprised with the level of objections we encountered. Several neighbours objected to the development on environmental grounds such as noise, dust, traffic levels and vibrations from explosives used in quarry blasting. For the first time in my career, I had to consider the development of

the business from the perspective of those whose views were different to mine. To successfully navigate the planning process, I had to see the position these people had and incorporate their perspective into my own plans. It introduced me to aspects of stakeholder management and corporate social responsibility that were new to me. I had previously taken the perspective of our own company but now had to process the concerns of neighbours and wider societal issues. I see the process of accepting and processing differing points of view as reflecting what Kegan (1994) refers to the need to differentiate cross-categorical structures rather than be identified with them.

The above challenges were the most significant of the early years of my career in the family business. I would regard these as “adaptive challenges” (Kegan and Lahey, 2009, p. 31), in that the challenges came up against the limits of my meaning system at the time. Dealing with these challenges forced me to integrate the views of others and moved me along the path towards “constructing an overarching system” (Kegan, 1994, p.203). I discuss this in more detail in Section 2.6. I see the challenges of modernising processing equipment and information technology platforms as having been what the authors refer to as being “technical challenges” (Kegan and Lahey, 2009, p. 38), in that by effective research, planning and procurement the appropriate equipment was identified, sourced and installed. While challenging and time consuming, I do not see these projects as having developed my meaning system, unlike the other issues that I have discussed.

2.4.2 Development of Management Practice

Cultural Issues

The most obvious difficulty I encountered returning to the business at a cultural level was that traditional employer-employee relationships within the construction sector were quite confrontational. I had seen this while working in the business during holidays and also when working in American construction companies during university holidays. A traditional and somewhat authoritarian culture was the norm, something that I now regard as being a product of an earlier era. This would also have been the case within our own company in its early days. From my experiences of a collaborative approach in the professional services sector and of teamwork in a sporting context, I was uncomfortable with this and felt that the traditional approach was counter-productive. From reflecting on this, I see that my aversion to conflict played a role in preferring a more collaborative environment.

I devoted a considerable amount of time in my first two years discussing my plans and expectations with quarry staff. By explaining the manner that I envisaged the company developing and by creating a forum where staff could provide input into development, I was able to defuse some strained relationships and overturn a belief that employee opinions were not valued which had existed within our company and which had contributed to the customer issues mentioned previously.

Time Horizon

The quarry industry is based on operators taking a long term outlook on land holdings and expansion plans. Quarry reserves can only be worked where they occur, leading to quarry owners attempting to acquire significant landholdings in the vicinity of their

operations. This allows for future expansion and prevents sterilisation of future quarry reserves by the erection of buildings or other developments on it. A quarry would normally expect to have at least fifty years of reserves available to it. In addition, quarrying is heavily capital intensive. Processing equipment is expensive but once acquired, has a long operating life. The combination of these factors means that a long term perspective is essential to success. My previous experiences in professional service firms would have led me to adopt quite a short term focus as the average length of project was only three to four weeks. The role that I now filled required a substantial change in time horizon so as to take a long term view. On reflection, this now shapes my meaning system in a multiplicity of areas. Whereas it would have originally applied in an asset management context, it now influences my approach to staff development, customer relationships and supplier arrangements. I now view these as long term relationships and take the approach of nurturing and deepening these relationships rather than a one-time, transactional approach.

Staff Involvement

I felt it important for the success of our company to instil a sense of shared purpose in all our personnel. The two most positive changes that contributed to this were the introduction of quarterly staff briefings on sales matters and the introduction of a sales related bonus to all staff. Previously, only operational matters were discussed at staff briefings and only sales personnel were paid bonuses. This led to a culture within the company that believed that sales were only the responsibility of sales staff. By moving the culture to one where producing a good quality product and delivering good customer service was seen as everyone's role, the company saw an immediate increase in customer satisfaction. The enhanced level of teamwork and customer

focus within the company was noticed quickly by customers and, based on customer feedback received, was instrumental in building higher levels of customer service. It reinforced our customer value proposition of giving an enhanced level of personal service.

2.4.3 Personal Issues Operating within a Family Business

On a personal level, the most difficult adaptation was coming to terms with the reality of self-employment. Having a meaning system at the time composed around collaboration and teamwork and operating primarily at a socialised level, it was quite overwhelming to be suddenly responsible for all aspects of company operations. Although my experience was almost exclusively as an accountant, I was suddenly expected to have answers to production, marketing and human resource problems. The support networks that I had become accustomed to no longer existed. The mental demands of my new position overwhelmed my extant mental capacity and I was "in over my head" (Kegan, 1994, p. 188). As well as actually being self-employed, my meaning system was required to become "psychologically self-employed" (op. cit. p. 224). This requires creating a larger context, a claim for fourth order consciousness, a level that I had not attained at that point. Kegan (1994) speaks of management requiring a fourth order authoring capacity, with the self a source of direction and values. I had not developed to this stage and can see my difficulties adapting to my new role in terms of my mental capacity at the time

The social aspect also contributed to my feelings of isolation. For the first time in ten years, I was not living in a bustling city but had returned to live in Tipperary. My

friends and former colleagues were still either based in Dublin or Sydney and I had to construct a new social circle. It was only when I married and moved after a number of years to live nearer the quarry that I truly settled in Tipperary. Having children growing up in this location and becoming involved in community development activities anchored me to the area.

A major factor in this difficulty was a self-imposed pressure to live up to the expectations on me as successor to my father. He was extremely well respected in our home town, having built a business from scratch. I felt that I was expected to operate in exactly the same manner as him, although socially, educationally and culturally different to him. I felt that I would always live in his shadow in Tipperary.

2.4.4 Towards Professionalising the Company

The next major developmental step in my career occurred in 2005. I had settled into running the business and the expanding construction industry meant commercial success. Volumes increased steadily and production issues were my predominant concerns. In June 2005, we suffered a catastrophic incident in which an employee was killed in a workplace incident. He had been cleaning a machine when it accidentally entrapped him. The incident was extremely traumatic for all parties. It was the first fatality encountered by our company in nearly fifty years of operation. I felt that I had personally let down my staff by such an event happening on our premises. This reflects the theme of understanding my role as providing leadership within the company. It was heartbreaking having to meet with the deceased's family and explain the circumstances of his death. We employed counsellors to aid the family and the

remaining staff. There were investigations from the Health and Safety Authority[8] and related issues to be managed.

From a company point of view, an immediate questioning of the safety culture both by me and outside bodies ensued. While workplace injuries in the company had been low by industry standards, the company had not embraced modern safety and risk management systems. I had personally been unconvinced as to their merits. In this I would have been guided by my father's attitude that these modern systems were 'paperwork and officialdom gone mad'. I now had a first hand view of the consequence of this attitude. The fatality led me to question this approach, not alone to safety but also environmental, planning, transport and quality matters.

I realised that the laissez-faire approach traditionally adopted by our company was no longer appropriate. I began a process of formalising systems in these areas. The first to be tackled was health and safety and a health and safety professional was engaged to draw up formal safety management systems. Whatever resistance there was at both management and staff level disappeared in the wake of the accident. The process proved beneficial, in that no reportable accident has occurred since 2005. The memory of the trauma inflicted by the accident lingers within the company culture. From a personal point of view, I see the accident as having been preventable and it colours my view of any perceived unsafe act as I never wish to relive the experience of explaining to an employee's family the circumstances surrounding a serious injury or fatality.

[8] The Health and Safety Authority is responsible for the enforcement of health and safety law in Ireland.

Reflecting on the company at that time in terms of subject-object theory, I can see the extent that a group of people and effectively the whole company could become subject to established methods and means of operation. I can now see the necessity for management to periodically challenge established wisdom, question the assumptions underlying this wisdom and drive a focus on new methods and technologies. I had largely ignored, and consequentially was unsuccessful in, advancing this approach up to that point.

I began to see that my role within the company was not to be 'doing' but to manage. For the preceding few years, I had been increasingly involved in production and sales. Even though my training had always focused on taking a strategic view, the pressures of an expanding market for our products and the constant demands for greater production and transport resources had caused me to lose sight of the 'bigger picture'. The traumatic events caused me to re-focus. I began to see my role as ensuring the resources, in terms of personnel and equipment, were in place to allow others to do their job. I had to be responsible for setting the direction rather than attempting to do the jobs of others. However, I have found it difficult to move beyond my operational focus (see Section 2.6.1).

Another area requiring attention was that product quality standards had changed within our industry with the advent of harmonised European standards. For the first time, companies had to have factory production controls in place and face annual audits by the national standards body.[9] Our customers, particularly the larger contractors, were specifying these standards and we were behind our larger

[9] The National Standards Authority of Ireland (NSAI) is the national standards body for Ireland and carries out audits to ensure compliance with national standards.

competitors in their adoption. We engaged with this process and began implementing the new standards, initially with our concrete products. This process has been ongoing since then, with European standards now applicable to all products we produce. The process of installing factory production control has imposed a discipline on our work practices. Although initially sceptical, staff have now recognised the benefits of formalised documented systems. It allows us to provide a full range of quarry products and provide technical support to our customers in line with what the larger companies within our industry can offer.

At this stage, the company is registered under the internationally recognised ISO standards for production quality, health and safety management and environmental management. In addition, individual quarry products are also subject to surveillance audits from the NSAI to ensure that products and processes are compliant with the relevant standards. The process has been a learning process both for me and staff. We have learned to be more professional and knowledgeable about product specifications, quality control procedures and how our products are required to perform in order to comply with building regulations. This level of professionalism is now a prerequisite to operating in the market.

From a management perspective, I see this process as fostering a change in culture from one of resenting standards and regulations to one of compliance and recognising the benefits of compliance. It has made our company more compliant and has increased process efficiency. My own perspective has changed to now seeing the company as vulnerable by not being prepared for changes in the enactment and enforcement of new standards and regulations. I see these processes as part of a management system that ensures the company can continue to operate in the market.

It allows us to service customers to the same levels of expertise as that offered by larger competitors.

The culture I inherited resented the introduction of increased levels of regulation as intrusive and to a certain extent ignored the less obvious ones. The process initiated by the traumatic events of 2005 has completely changed this culture. I now see regulation as inevitable and not confined to our industry. The increasing regulatory burden tends to favour the larger companies who have in-house units to deal with these issues. A culture of compliance with regulations is now a critical success factor because regulatory impacts will not diminish and indeed, I see the regulatory environment becoming more challenging. In discussions with my father, I see this as the most significant change in the business environment in my tenure. While his challenges revolved around poor infrastructure and business support, he benefited from a looser regulatory environment. While the business now faces an increasingly onerous regulatory environment, the infrastructural issues faced by the business then have now been generally resolved.

2.5 Upheaval in Operating Environment

The economic environment of the business changed dramatically from Summer 2007 onwards. We noticed that our house building customers were becoming slower to sell houses and had begun to scale back their activities. Although economic commentary at the time was predicting a ‘soft landing’, I became concerned at the pessimism of these customers. The construction market relies on confidence for momentum and this confidence was rapidly evaporating. At that stage in 2007, the slowdown did not

significantly impact upon us as a major state-supported infrastructure scheme[10] was still in operation within the agricultural sector and was reaching a peak as the completion date of the end of 2008 neared. Our concrete sales were still increasing in this sector.

The ending of this scheme in December 2008, coupled with which by then a complete collapse in the wider construction industry, was a devastating compound blow. I recall returning after the Christmas break in 2009 and realising that we had no pipeline of sales orders. Activity fell by 52% in 2009 alone, across all our product lines. I consider the recession, in so far as it affected our company and the wider quarry and concrete products industry, to date from 2009. From the peak in 2007 to the trough in 2010, our sales dropped by 61.3%[11]. We incurred heavy losses from bad debts as many of our building contractor customers became insolvent. We were forced to make several staff redundant and place the remainder on short time during 2009 and 2010 as activity levels were greatly subdued. There were also significant cutbacks in expenditure, both capital and current, to deal with the slump in activity. The company experienced heavy operating losses for a number of years.

The collapse in activity led to our company and our competitors having significant surplus capacity. There was initially a belief, again emanating from economic commentary[12], that this recession would be short-lived, so that companies were slow to cut capacity. This led to intense price competition, with concrete prices falling by

[10] The Farm Waste Management Scheme ran for a seven year period ending in December 2008 with a total state payments of €1.2 billion (source: Dept of Agriculture, https://www.agriculture.gov.ie , accessed 24th January 2017)

[11] Figures accessed from internal company sales records.

[12] Central Bank and Economic and Social Research Institute (ESRI) reports from the 2008-9 period predict a soft landing for house prices and continued but muted economic growth for the succeeding years.

up to 25%. Given that even in buoyant conditions, concrete margins averaged 10%, these short term moves exacerbated losses in the industry. Activity remained subdued and the wider construction industry experienced widespread insolvencies and closures.

The industry stabilised in 2010 and has begun a slow recovery since then. By 2015, our sales had increased by 15% from the trough, but were still 55% below peak. At this point, I believe that the activity levels seen in the 2005-2008 period will not recur in my career. At the time, I did not recognise it as a bubble, but looking back, it is clear that the activity levels were unsustainable.

My reflections on this period highlight the significant dislocation caused by the recession. Since my return to the family business in 1998, sales had consistently increased each year. I had unconsciously worked to the assumption that this trend would continue. Economic commentary at the time lent credence to this assumption. There was no need to focus on strategy or positioning as we could sell all output at satisfactory margins. Most of the challenges dealt with at this time were operational, primarily concerned with maximising output and throughput in our production and logistics operations. It was shattering to have this assumption of increasing activity proved not to be true as our business had in large measure been constructed upon it.

The impact of the recession led me to question the assumptions on which our business was based. It became clear that I had relied on the viewpoints of others and had internalised these views of the market conditions as being my own. Even though intrinsically I knew that large scale housing developments in rural villages were unviable, I was happy to follow the consensus view. The subsequent invalidation of

the assumptions upon which these optimistic forecasts were based undermined our business model. I now recognise the need to make explicit and review critically the assumptions underlying the business and my management practice and to examine these in light of realistic expectations of the operating environment. I can see my previous perceptions of the environment as displaying aspects of meaning making at the socialised level.

The recession and associated over-capacity has led to a realisation that I must make significant changes to how I perceive the market. The environment has undergone significant structural change and I have to formulate a response. Given that the construction market is cyclical, further expansions and recessions are inevitable. The challenge for me is to position our company so as to minimise its exposure to the most detrimental impacts of these cycles. To achieve sustainable returns, I must develop a strategy to deal with competitive forces within the industry and position the company accordingly. This may involve seeking new markets or products or concentrating on particular segments. Other competitors may react differently but a key lesson for me from the recession is that I am only responsible for the activities of our company and have only a limited impact on the wider market.

2.6 Key Emerging Themes

2.6.1 Perceptions of Management Role

My perceptions and understanding of my role within the company are rooted in my preconceptions as a successor. Whereas Kegan (1994, p.168) sees the process of managing as implying the “authoring capacities of the fourth order of consciousness”,

my management style exhibited many of the characteristics of the socialised mindset. As an owner manager I would always have considered that I "owned my work", being "guided by my own visions" (op. cit., p.152/3) and was responsible for setting the agenda. Kegan sees these as modern expectations in a work context, where we are expected to be masters of our own work. However, my execution of the role focused more on the tactical and operational aspects, rather than strategic.

My current role within the business focuses on managing the day to day activities. The business currently employs twenty three people directly, split between production, administration and distribution and a further eight specialist haulage sub-contractors. Although my formal education and training was in the accounting and finance area, I am required to be familiar with all operational aspects, including production, marketing, maintenance, finance and transport. I have retained the focus on staff development that was ingrained during my early professional training. I regularly send staff on training and development courses to keep their skills updated. However, I am engaged in operational issues to the detriment of the strategic demands of my role. I can see how the operational challenges of coping with a full capacity environment have led to a focus on these types of issues.

Due to staff reductions in our company arising from the downturn, I had to become more active in running the office. This change in the industry environment upset many of the assumptions I held regarding the future business direction. The operational focus caused me to be inward-focused and not concentrating on the challenges posed by the external environment. The principal manifestation I identified of this is in effectively delegating to staff. I have developed an overwhelming tendency to assign work to staff and then proceed to do the work myself. This is limiting me both in terms of the effectiveness of my practice and in making

productive use of my time. It is certainly not promoting staff development, which contradicts one of the values I brought from my professional training. This is counter-productive in utilising resources to their potential. It is now obvious to me that this operational focus is hindering my practice and the overall performance of the business and is a key area I need to address.

2.6.2 Interrogation of Management Practice

My reaction to the 2009 recession had highlighted to me the extent to which a focus on operational issues was limiting my effectiveness. I began to question the origins and reasons for the development of these practices. On commencement of my doctoral studies, I began to look at the development of aspects of my management style in terms of subject object theory (Kegan, 1994). I became aware of the extent to which I was subject to "third-order" (Kegan, 1994, p. 171) commitments and how these were hindering my effectiveness.

The opportunity to interrogate aspects of my management practice arose at a workshop hosted by Robert Kegan in March 2015. I identified certain behaviours and practices as being the starting point for further reflection and investigation, in line with the framework of Kegan:

- A reluctance to delegate and a tendency to take back work that I have delegated and finish it myself;
- A tendency to dominate meetings and give of my opinion on all issues;
- Being seen in the office and quarry throughout the working day;
- Insisting on being the one to provide cover for other staff at meal breaks;
- Avoiding conflict and a related tendency to defer difficult situations;

I used the Immunity to Change framework outlined by Kegan & Lahey (2009) to interrogate these behaviours (outlined in Section 1.4). I discuss the rationale behind the use of this framework in Essay Two (Section 3.5). The objective of this framework is to identify "Big Assumptions…those assumptions that are taken as truth…those assumptions that have us" (Kegan & Lahey, 2001, p. 68). Through reflective practice and discussions with Prof. Kegan, I completed an immunity map using the visible commitment of becoming a better delegator. I analysed my behaviour as follows:

Table 2 Initial Immunity to Change Map

Visible Commitment	**Doing/not doing instead**	**Competing commitments**	**Big Assumption**
To become a better delegator	Doing work myself Taking back work already delegated	**<u>Worry box</u>** **That I will be seen as owing my position solely to nepotism**	That I have not achieved my position on merit
		That I'm the only one able to do task That I'll be seen as lazy That I'll be resented if I'm not seen as contributing	

Source: Adopted from Kegan and Lahey (2009)

I view this resultant big assumption as illustrating that which 'has me', that to which I am subject. This exercise illuminated to me the extent to which I remain subject to the

need to prove that I don't owe my position to the fact that I am the son of the founder of the business.

Prior to this exercise, I would have believed that I exhibited many traits of fourth order meaning making (Kegan, 1994). The Immunity to Change workshop illustrated the extent to which this was a fallacy. Being subject to what is evidentially a third order commitment came as a shock. The second column behaviours make complete sense when viewed in light of the competing commitments and the contents of the worry box. Kegan notes that a person gradually moves between stages but can be pulled back by a lower order commitment.

In other cases which I documented in my learning journal, I have arrived at similar competing commitments and a similar big assumption. Kegan and Lahey(2009) believe that this process "produces a more complex self by enabling us to overcome a blind spot and by getting distance on a way of making meaning to which we had been captive" (p.167).

Reflecting on the outcome of these immunity maps, I can see the extent to which the succession issue has dominated my meaning system throughout career in family business. Although it is natural for a child to want to live up to parents' expectations, I had never considered the extent to which it has continued to influence my meaning system through to middle age. The Immunity to Change maps have illustrated that many of the issues in my management practice stems from my perceptions of succession and that it is a key issue to pursue as part of my readings in the Reading for Change phase, reported on in Essay Two.

2.7 Impetus for Development

By 2014, I found myself at a crossroads in career terms. This is one of the reasons that I decided to enrol in a doctoral programme. I had been managing the business for over fifteen years. The initial challenges I faced on my return to the business have largely been accomplished.

I have been active in our trade association, the Irish Concrete Federation, for the last ten years. I am currently (2015) vice-president and will serve a two year term as president starting in Autumn 2015. The trade association employs specialist professionals in areas such as planning and environmental management, health and safety and human resources that we as a small company could not afford to employ on a full time basis. It also serves as a networking hub to discuss industry issues and get external advice on problems. I view the high level approach taken within the trade association as giving important context and background to my day to day work. I see that involvement in the trade association serves as a validation process for me, in allowing me to measure myself against other managers within the industry.

A recent report estimated that the construction industry is currently operating at approximately 30% of its peak output and approximately 60% of its long term expected output (Irish Concrete Federation, 2015). The level of capacity in both our company and in our competitors greatly exceeds this expected demand. The result in business terms is that product prices and margins have declined to below long term sustainable levels permitting reinvestment in plant and personnel. In addition, even though customers demand high levels of certification and traceability, there is a reluctance to pay a premium for compliance. As a manager, I must make decisions

about the future of our business in several of its markets if returns remain at current levels. I have to review the strategy of the company and evaluate the extent to which the customer segments we supplied for the last fifteen years can still be profitably serviced. It is clear to me that what worked up to 2009 will not work in the current environment.

Commencing in 2011, I began to look at my personal development, in particular the idea of pursuing further education. On an operational level, I felt that I needed to obtain a specific qualification in the quarrying industry. Recent developments in health and safety legislation had encouraged the idea of quarry managers having relevant qualifications. In 2012, I enrolled in an International Certificate in Quarry Studies, jointly run by the University of Derby and the Institute of Quarrying. This proved a useful course of studies and gave me a theoretical underpinning for much of the work I already carried out. However, it was what Kegan and Lahey (2009) refer to as a technical challenge, in that it imparted a greater skill set rather than changing mindset. The undermining of my assumptions concerning the industry and its environment had prompted me to address what I saw as shortcomings in the development of my mental capacity. I read about the DBA and its focus on transformation. I felt resonance with Kegan and Lahey (2009) that "many of the change challenges you face… are adaptive challenges and can only be met by transforming your mindset, by advancing to a more sophisticated stage of mental development" (p. 29).

As a meaning maker, I consider that my development has reached a plateau in recent years. The technical challenges I faced in my early years managing the family business have largely been dealt with and a routine has settled onto both the business

and my management practice. As I face into middle age, I am unable to see how the business will look different if I was to remain in my current position until retirement. I believe that my management practice has not adapted to the new realities and that I need to change in order to further develop the business. I became excited about the possibilities of the doctoral programme to stimulate mental development and to explore the extent to which I can move beyond my current level of mental complexity. I want to investigate the potential of a process of adaptive change to transform my management practice. I feel that this adaptive challenge will position me to more effectively tackle the challenges of the current environment.

2.8 Conclusion and Developmental Goals

Prior to commencing my studies, I would have considered that I had developed a self-authored system, in that I was comfortable in identifying and deciding between competing demands. However, due to the issues that I identified using subject-object theory, I no longer feel that my internal guide predominates. I see the extent to which I have internalised the voices of external ideologies and am held by the expectations of others. Berger (2011, p.9), when commenting on the movement between greater levels of mental complexity, states that until a person moves "to the edge of understanding…one cannot know whether the socialised part you are seeing represents the greatest level of complexity" and that a person who "is self-authored also has some piece that is socialised". In my case, I can see significant aspects of a socialised form of mind present within my meaning system. It seems to me that my meaning system sits between the third and fourth orders of consciousness, with aspects of both orders apparent. Berger (2002, p.62) notes that when moving between orders, "the former way shows up as hints or pulls backwards". However, I can see that I have reached a point where my existing mental capacity is unable to process the

challenges and demands of my role. This has been surfaced by my response to the changed environment post the 2009 recession.

The review I have conducted has highlighted a number of issues that form the basis for my research questions:

- What impact would a process of adaptive change have on my management practice?
- Would the development of a more complex meaning making system result in higher levels of professional effectiveness?
- Will adaptive change move my practice from an operational focus to strategic?
- What would the impact be on the business of operating in this manner?

The areas which I explore through my readings in the next stage of the doctoral process are:

- The influence of succeeding the founder of a family business and the impact of this on my management practice. In particular, I explore the role of succession in the development of the 'Big Assumption' surfaced in Section 2.6.2.
- The need to revise my business assumptions and management practices in light of the changed environment in which I now operate. I wish to explore the role of assumptions in business and what assumptions are appropriate for the current environment.
- The need to develop a strategy and consider the strategic positioning of our company in an environment characterised by strong competitive forces. I will explore the forces shaping the competitive environment in which I operate and the positioning of our business as a result.

The challenge which I set myself is to use a process of adaptive change to become capable of “owning my work and retain that ownership in the face of challenges to it” (Kegan, 1994, p.165). This challenge forms the subject for my next Essay- Reading for Change.

Reading for Change

3.1 Introduction

This Essay links the Professional Development Review and Transforming Practice Essays. I identified the issues that are impacting upon my professional practice in my Professional Development Review and engage with readings in order to expand and deepen my understanding of them. In this, I follow Smagorinsky (2001), who argues that "reading is a constructive act in which meaning emerges through the composition of a new text" (p.162) by documenting the impact of my readings on my meaning making system.

Section 3.2 outlines the research methods adopted. In Section 3.3, I explore the impact of succession in family business on the development of my management practice. I explore my succession experience and the impact this has had on my management practice. I believe that this is a necessary preliminary step in order to explore some of the issues that emerged in the previous Essay.

In Section 3.4, I explore the role of assumptions both at the business and personal level. The limiting effect of assumptions has been widely studied in business (Ohame, 1982, Drucker, 1994), education (Brookfield, 1995) and psychology (Kegan, 1994) and has been shown to be a significant factor in business and personal performance. I consider my business and personal assumptions in light of this.

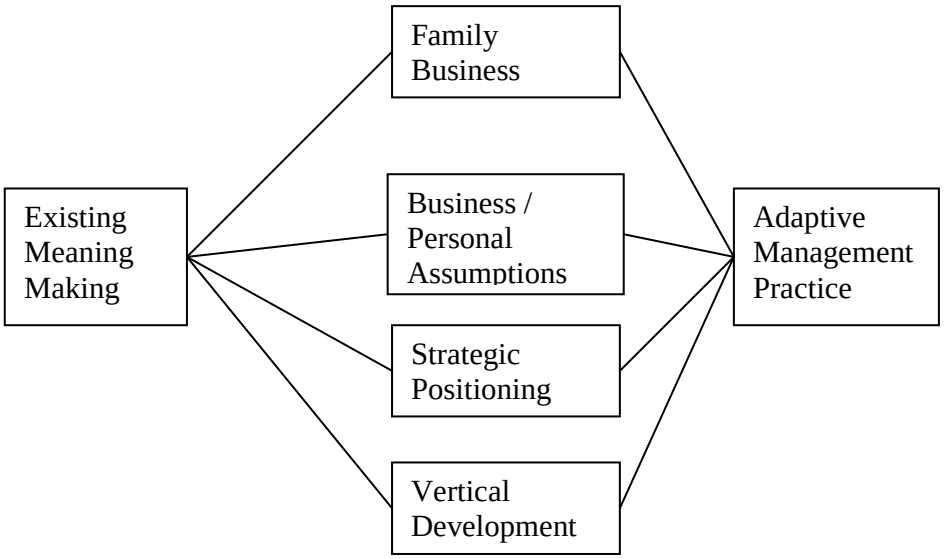
In Section 3.5, I explore the development of mental capacity in light of the readings in the previous section and how to put these insights into practice. I consider the

implications of a vertical development process for changing and enhancing the effectiveness of my management practice.

I explore the issue of strategic positioning in the context of my own family business in Section 3.6. I consider the appropriate approach given the change in environment from the Industrial to the Internet age. I consider the competitive environment of the Irish aggregate and concrete products market and hence the appropriate strategy for my business.

The various explorations can be depicted as follows:

Figure 3: Towards Adaptive Management Practice



Source: Author

I outline this expanded meaning making system in Section 3.7 and test its effectiveness in Essay Three.

The purpose of this essay is to engage with themes identified in my Professional Development review, and through this engagement, with its associated readings,

expand my understanding of them. The goal is to use an adaptive process to expand my meaning making so as to improve the overall effectiveness of my management practice. By increasing my knowledge and understanding of the previously identified themes, I provide myself with the basis for challenging my assumptions in these areas. After engagement with the selected readings, my goal is to develop an expanded meaning making system, which I will test in the Transforming Practice essay.

3.2 Research Methods

The research methods adopted in this Essay are consistent with the overall Portfolio approach which is located within the interpretive tradition using first person methods. Foster et al (2006) see a role for first person studies in inspiring readers to reflect on their own experiences and in making lived experience accessible to others. This resonates with one of the objectives of my research, namely generating research relevant and useful to my community of practitioners.

The overall research approach in this Portfolio is one of first person action research. The action research cycle is iterative, comprising steps of planning, constructing, taking action and review and evaluation. This essay forms the planning and constructing stages of the overall action research project (See Section 1.3.2). Therefore, I expand my understanding of the issues and reflect on the impact of my readings. This review provides context to my work (Coghlan & Branninck, 2014) and by locating my work within literature in the chosen areas, adds to the scientific rigour of my work (Kur et al., 2008).

3.3 Family Business

Being the successor in a family business has been the source of many aspects of my management practice. My research answers the call by Leppaaho et al (2016) for research that emphasizes personal experiences in the family business context. They call for research on "how personal and family lives have been experienced by the people who own or manage a family business" (p.168). It also addresses deficiencies in scholarship at the micro level and offers opportunities for a deeper exploration of sense making, as highlighted by Fletcher et al (2016). By providing a first person perspective on my experiences as a successor and in using an adaptive process to broaden my meaning making, I contribute to existing knowledge in this area.

3.3.1 Exploration on Family Business Succession

The objective of this section is to reflect on the extent to which succession has impacted on my management practice. In Essay One, I reflected on my experience in becoming a successor in a family business. In this section, I want to explore my experience in the light of what I have read in this area.

The succession process is one prone to failure. Various studies have shown the rate of successful transition to the second generation at 30% and 10-15% for subsequent generations (Handler, 1994; McMullan & Warnick, 2015; Lansberg, 1999). Research on family control of industries in the U.S. has shown that the proportion of businesses in the concrete and quarrying industry that passes to the second generation to be dramatically less than the average figures quoted above (Villalonga & Amit, 2010) suggesting that succession failure is particularly prevalent. As the family business model is widespread in modern economies, failures in this sector impose considerable

economic impact, apart from the emotional impact within families caused by the failure to perpetuate the family firm.

In many cases, the causes of succession failure are internal and rooted in a failure to accept the reality and necessity of succession as well as a failure of internal processes (Lansberg, 1983). In my case, there was an acceptance from my father that succession was inevitable and that he had reached a stage in his personal life where he wanted to retire. However, the acceptance and implementation of the idea of succession were different. The idea of resistance to succession is widely covered in the literature (Handler and Kram, 1988). The authors model resistance to succession as occurring along four dimensions:

- Individual- psychological, health and identity issues relating to the incumbent.
- Group- power, trust and communication issues in the greater family
- Organisational- the culture and stability of the business
- Environmental- industry environment including regulatory and specialisation requirements.

My experience of resistance occurred primarily along the individual dimension. It is clear to me when reviewing the experiences of my succession that both my father and I had underestimated the difficulties of the process. The idea of handing over control of the organisation must have been terrifying to him no matter how well qualified I was. Also, given that my professional work experience was conducted away from the company, he had no first hand experience as to my managerial competency. He had to take on trust and intuition that I was suitable for the role. Prior to taking over, I had not considered the emotional aspects outside my perspective.

The theme of dislocation is evident in the succession narrative when considering the position from both our perspectives. From discussions with my father, the psychological adjustment or de-socialisation was considerable and a factor to which I gave little consideration (O'Sullivan, 1994). This psychological impact of no longer being responsible for ones own creation and the separation anxiety this can cause in a founder can lead to the failure of a succession process. It has been noted that the very characteristics that enable a founder to start, grow and maintain a successful business are also those that hinder a process of succession (Poza, 2007).

Whereas the incumbent realises that retirement is inevitable and that a successor will make changes to the business, emotions and attachment to the business may make this process difficult (Lambrecht, 2005). It is natural for a successor to want to examine and, if necessary, change the strategies of the incumbent (Mitchell et al., 2009). This struggle between my desire to make changes and my father's apprehension at the possible impact of these and undermining of his way of doing things was not clear to me at that time (See Section 2.4.1). It is only now, having studied the area of resistance to succession that I can make sense of these tensions. What I saw then as problematic, I now see as a perfectly logical and understandable reaction.

3.3.2 Exploration of Successor Motives

Whereas the attitude of the incumbent is one issue, the presence of a suitable successor is the single most important factor in a successful successor (Motwani et al, 2006). An aspect of succession which I find relatively unexplored is that of succession

being dependant on the incumbent making it attractive to a successor to enter the business. The willingness of a successor to act is in many cases dependant on the attractiveness of the family business both from a financial and personal perspective. (Venter et al, 2005). There is also a motivation to grow and develop the business, rather than simply perpetuate what went before (Chalus-Sauvannet et al, 2016).

The decision to return can be prompted by many factors:

- Emotional- where there is an emotional attachment to the business
- Financial- where it is believed that it is the most financially attractive career choice
- Life cycle- it is the right move given the career path

The financial and life cycle factors were the most important in my own case. By 1998, the Irish construction was on an upward trajectory and sales volumes in our industry had been growing for the past 5 years[13]. The expectation was for a number of years of continued growth. This gave me a certain confidence that there was a stable business to manage. The alternative for me was to continue working in a financial role in industry. I attribute this to the experience of growing up in a family business environment and my desire to create something by myself (Ib &Jacobs, 2006) The element of fear was always present in forgoing a secure position in industry for the uncertainties of being self-employed.

The desire to perpetuate the work of a parent was a powerful motivating factor in my case. I was immensely proud of what my father had achieved and how he had built a strong business in a rural area. As the oldest child, I had been immersed in the

[13] Sales volumes were accessed from internal company records.

business from a young age and I had always felt an unspoken expectation that at some stage I would return to it. I viewed obtaining outside work experience as developing competence and demonstrating both to myself and my family that I could succeed in an environment outside the family firm. This positive perspective on outside work experience in generally supported by literature in this area (Ward, 1987; Chalus-Sauvannet et al, 2016; Venter et al, 2005).

A common explanation for succession failure is that the business is not viable to the next generation. Where a successor is contemplating a return to the family business, he needs to have clear visibility as to the stability and profitability of the business. In my case, the choice was between remaining in the accounting area where salary levels and career prospects were relatively transparent or a return home. I was encouraged by the level of profitability but could see that significant investment in capital equipment was required. Again, it was encouraging that financial reserves had been maintained to facilitate this investment. Whereas King and Peng (2013) show clear evidence of succession failure in industries such as ours with heavy capital investment needs, the availability of financial reserves mitigated this factor in my case.

The decision to return has many influences, among them a sense of responsibility to the family and an interest in the firm (Birley, 2001). Whereas, in the case of an external appointment, I would have been seen as well qualified for the role as MD of an SME, I felt that I had to justify my appointment. It was important to me that I would not be seen as the beneficiary of nepotism. I can now see this as indicative of operating at a socialised level of meaning making. Rather than being confident in my own abilities, I sought external validation. I can see this as being the origin of many aspects of my management practice.

3.3.3 Impact on Management Practice

The succession from my father to me represented an organisational change from an entrepreneurial to managerial environment (Handler, 1994) given my university education and professional qualifications. It also represented the first transition between generations in the business. The Big Assumption identified previously was based on fear, of not being seen as a competent or deserving successor. This led me to adopt an operational approach to my management practice and get involved in a level of detail inappropriate for my role as MD. This operational approach effectively assumes that the operating environment will remain constant. The impact of the 2009 recession was to completely invalidate this assumption. The lack of a strategic focus meant that my mental capacity to process this reversal was unable to cope with the demands placed upon it.

In an objective sense, this Big Assumption was irrational as I was far better qualified and experienced as a manager than my father had been when he assumed the position. A unique feature of CEO succession in the family business arena is the lack of external competition for the role. This leads to a quest for acceptance and legitimacy by the successor in order to demonstrate that nepotism was not the sole criteria in their appointment (Koffi et al 2014, Dalpiaz et al, 2014). As the eldest, I would have been seen as the primary successor - this point is made in studies of succession, e.g. Birley (2001) who sees the eldest son as being the expected successor by both generations.

The readings undertaken in this area have allowed me make sense of my succession experience. My experience is a first person exploration of issues which I have discovered is common in this area and my experiences are a natural reaction to succession. My introduction to the works of Kegan (1982, 1994) in Essay One has

allowed me to review my management practice using the Immunity to Change framework. I have been able to trace the origins of these aspects of my management practice to seeking legitimacy as MD and successor to the founder. Exploring my experience of succession has served to highlight where development is necessary. Moreover, by making explicit these assumptions, I am motivated to undertake an adaptive change process, to move to object those aspects of succession to which I was subject. I report in Essay Three (Section 4.3) on the outcome of this.

3.4 The Role of Assumptions in Business

It is clear from the exploration above that assumptions regarding my role have played a large part in the development of my management practice. Brookfield (1995 [2017 p.4]) defines assumptions as "the taken for granted beliefs about the world and our place within it that guide our actions". The work of Kegan (1982, 1994) highlights the extent to which cognitive factors underpin management practice. The role of assumptions can be applied to business as well as personal spheres. Authors such as Senge (1992) and Argyris & Schon (1974) note the role that mental models and assumptions play in how we view our surroundings and the impact of these assumptions on how we make meaning of events. My Personal Development Review highlighted the impact of assumptions on my practice and the importance to develop awareness of cognitive factors.

The role of assumptions in business has been studied from a number of perspectives in strategic management, for example:

- The conventional wisdom prevailing in an industry;
- The assumptions underlying the business model of an individual company;

- The assumptions underlying the management practice of an individual.

My Professional Development Review shows the extent to which my management practice was subject to hitherto unrecognised assumptions, particularly in the area of succession. In Essay One, I used Kegan and Laheys's (2009) Immunity to Change framework as a reflection tool to surface awareness of these assumptions. In this section, I examine the role of assumptions, place the work of Kegan into context and deepen my understanding of the role of assumptions in management practice and business models.

Brookfield (1995) regards the practice of critical reflection, which underpins much of the data in this work, as one of assumption hunting. On observing a practice, the inherent assumptions can be uncovered at three successively deeper levels:

- Causal assumptions - assumptions about how the world works and the conditions under which they can be changed;
- Prescriptive assumptions - assumptions about what we think should be happening in a particular situation;
- Paradigmatic or hegemonic assumptions - structuring assumptions we use to order the world into fundamental categories.

Hegemonic assumptions are those that we think are in our best interests but may work against us in the long term. This is a similar conception to Kegan when he refers to the Big Assumption as a central tenet of a person's mental models that is uncritically accepted as being true (Kegan and Lahey, 2009). It simultaneously acts as a means of organising reality, managing anxiety and an inadvertent change prevention system. Whereas the assumptions regarding business models identified by Drucker (discussed below) can be characterised at the causal or prescriptive level, it is necessary to go

deeper to uncover the paradigmatic assumptions. The paradigmatic assumption represents the accepted wisdom or common sense underlying the practice. Whereas Brookfield is primarily concerned with teaching practice, the work of Kegan has extended from its origins in psychology into management practice and development. In this sense, this formulation is more relevant to my role as practitioner. I thus follow the Kegan Immunity to Change framework to hunt my paradigmatic assumptions. I discuss the issue of adaptive change and expanding my mental capacity in Section 3.5.

In general, it can be seen that the issue of assumptions, whether viewed through the lens of mental models (Senge, 1992), theory of business (Drucker, 1994), hegemonic assumptions (Brookfield, 1995) or Big Assumptions (Kegan & Lahey, 2009), feature greatly in modern management literature. The underlying premises of theories of disruptive innovation (Christensen, 1997) and Blue Ocean strategy (Kim & Mauborgne, 2005) both fundamentally rely on creating a new set of assumptions to satisfy an existing customer need in a new way. This focus on assumptions draws attention to the fact that adopting a particular strategy or business model is not simply a technical process but inevitably involves demands on the mental capacity of those adopting this strategy. It also draws attention to the importance of delving below a practice to unearth the assumptions and relationships underlying it (Kemmis, 2001). The mental model and capacity underpinning practice must be uncovered. I believe that it is not possible to consider the personal assumptions of the practitioner in isolation from the associated business assumptions.

Hamel (2012) echoes Drucker (1994) in arguing that intellectual flexibility and challenging long-held assumptions is a requirement of modern management. Management innovation challenges orthodoxies- this theme is evident in reviewing many of the new developments in strategy such as disruptive innovation or Blue

Ocean strategy. The mental models of managers are seen by both authors as the greatest barrier to innovation and threat to the continued relevance of the business model. Hegemonic assumptions regarding business models are the most deeply seated and are the greatest threat to an effective response to a new entrant, particularly the disruptive kind. Hamel (2007) observes that management innovation is a precursor to strategic, product and operational innovation. This lends credence to the assertion that the formulation and implementation of strategy is a higher order mental demand and needs to be preceded by addressing the assumptions of the practitioner to uncover those to which he is subject. I discuss this aspect further in Section 3.6.

The role of assumptions in underlying the business model of a company is a common theme in the strategic management literature. Ohame (1982) emphasises the importance of challenging prevailing assumptions and asking whether they remain valid drivers of the business model. The work of Kegan & Lahey (2001), Argyris & Schon (1974) and Senge (1992) emphasise the impact of cognitive and psychological factors governing the assumptions of management. Daly & Walsh (2010) note that assumptions drive business models and that competitive advantage for a business can be gained from the selection of valid and relevant assumptions, relative to competitors.

In seeking a framework for studying business model assumptions, I encountered the comparatively neglected Theory of Business as outlined by Drucker (1994). The Theory of Business is based on the role of assumptions in the operations of the business. It reflects how the external environment is viewed and provides a

framework for categorising business assumptions. Drucker sees the framework in terms of assumptions in three areas:

- Environment in which the business operated;
- Specific mission of the business;
- Core competencies needed to accomplish mission.

Further, these assumptions should fit reality, complement each other, be known and understood throughout the business and tested constantly. He warns that eventually every theory of the business becomes "obsolete and then invalid" (p.101). He illustrates his point by showing the extent to which once dominant companies ignored the changing nature of their industries because these changes didn't fit their established theory of business. The result was commercial irrelevance. Preventive measures include abandonment, i.e. testing the continuing relevance of assumptions, and the study of non customers (i.e. those dealing with competitors), to become familiar with what is happening outside the business. Although much of Drucker's work is founded in the Industrial Age, his ideas regarding obsolescence are echoed in the work of Christensen (1997) on disruptive innovation (see Section 3.6.3). More recent work by Daly & Walsh (2010) has revived interest in this aspect of Drucker's output and has demonstrated its continuing relevance to the consideration of business model assumptions in a modern business environment. I use the framework of the Theory of Business to expose the assumptions underlying the business model of our company.

I had never considered my management practice in terms of assumptions. The operational focus I adopted had effectively accepted the operating environment as given and that our core competency was a concentration on operational efficiency. I was unaware of the extent to which assumptions had underpinned and driven my

management practice and the inherent bias towards buoyant market conditions that this had imparted. My explorations of the literature on assumptions, both personal and business, have allowed me to develop an awareness of the existence of assumptions. Whereas Drucker focuses on assumptions about the external environment, Kegan's focus is on internal apprehensions when facing this external environment. The benefit of combining these is to generate understanding that the external environment is not independent of how I think about it. It illustrates to me the extent to which assumptions underlying my management practice had influenced my assumptions about the external environment in which I operated.

My Professional Development Review has highlighted the key personal assumptions inherent in my management practice. The following table summarises the key business model assumptions underlying my Theory of Business prior to 2009:

Table 3: Old Theory of Business

Environment	**Mission**	**Core Competencies**
Buoyant demand for products in line with economic forecasts	Providing comprehensive product range to full range of customers	Maximising production to cope with demand levels
Low credit risk leading to unfocused sales efforts	Focus on high volume undifferentiated products	Efficient logistics to cope with demand
Ability to sell all production		Organising administration and sales to deal with high demand

Source: Author

Reflecting on this, it is clear the assumptions I had made concerning the industry environment had become invalid by 2009. I was subject to the assumption of buoyant market conditions and unchanged operating conditions and this underpinned my assumptions in other areas. The existence of this assumption was not evident to me at the time. By 2011, I was forced to accept that the assumption of a buoyant market was

no longer valid. I realised that my assumptions regarding core competencies led me to remain focused on operational issues, which was limiting my response to the recession. The new environment demanded a reappraisal of the old approach.

The need for competitive positioning was previously not relevant as we were in a position to sell all products produced. The main issues that I considered as part of my role were operational in nature, primarily how to maximise the output of our physical and human resources. The idea of trade-offs did not exist as the only constraint I recognised was the physical limitations on output. It is only by recognising the existence of this assumption and accepting it is no longer valid that I can move it to object and no longer be bound by it.

I have used the work of Drucker to awaken awareness in me of the importance of assumptions in business models. I was not consciously aware of these, although they were intrinsic to the way I operated. Further, by being alerted to the fact that assumptions can lose validity and require constant questioning and renewal, I was provided with a means to put in context the changes required to our business model and update my Theory of Business.

In combining the exploration in this section of business and personal assumptions, I have used the categorisation of Brookfield (1995) to summarise the key aspects of these assumptions on commencement of this programme of study:

Table 4: Summary of Key assumptions

	Individual Practice	**Business Model**
Paradigmatic	That I have not achieved my position on merit	That the construction market will remain buoyant
Prescriptive	That I need to focus on operational matters to be effective in my role	Operational efficiency is the key factor to be managed in operating the business
Causal	That being present in the office is the best means of doing my job	Efficient production and logistics functions are the key competencies needed to manage demand

Source: Author

Using Drucker (1994) as a guide, I have uncovered the business model assumptions underlying my management practice. However, these operate at the prescriptive and causal level of assumptions (Brookfield, 1995). To deal with the deeper paradigmatic assumptions in my practice, I must engage in an adaptive change process to allow me to fully implement this management practice, as I believe that it requires me to construct meaning at a more complex level. I discuss this aspect and the development of mental capacity in Section 3.5. The work on exploring and dealing with my personal assumptions is reported in Essay Three.

My explorations in the area of family business have made me aware of the assumptions in this area to which I am subject. As these are fundamental to my role perception and management practice, I incorporate these into my new theory of business. I propose to extend Drucker's (1994) approach to include assumptions

regarding family dynamics. I refer to this as my Theory of Family Business. This includes assumptions regarding:

- My role perception as a family member and successor
- Succession planning
- Preparation and legitimising a successor

The outcome of my exploration on business assumptions has led me to revise my assumptions concerning the external environment. This reflects the changed reality in the industry environment and its operating conditions. It reflects the industry background in Appendix 1, the strategic analysis in Appendix 3 and my Professional Development Review. This is used to underpin the strategic analysis in Section 3.6 and hence as a basis for the development of a new strategy for my business which takes account of the changed operating environment. This analysis provides a useful summary of my current assumptions towards the external environment and how our company addresses it. I summarise the key features of my new Theory of Business as follows:

Table 5: New Theory of Family Business

Environment	Mission	Core Competencies	Family Dynamics
Static market conditions with modest growth potential	Awareness of areas where competitive advantage exists	Focus on product range in selected segments	Awareness of impact of succession on management practice
Over capacity in industry supply	Focus on niche products and customer segments	Tailor activities to match focus on these segments	Preserve business in family ownership
Long term focus emphasising business continuity	Strategic rather than operational focus	Recognition of necessity of trade-offs	Responsibility to prepare successor for my own retirement
			Long term focus emphasising business continuity

Source: Author

This enhanced understanding of the environment in which the business now operates provides the impetus for the discussion of strategic positioning (Section 3.6).

3.5 Developing Mental Capacity

The exploration of the role of assumptions has identified the extent to which assumptions drive management practice and business models. These insights are of little use if they cannot be applied in practice. Senge (1992) suggests that this can happen because these new insights conflict with previously held models or assumptions of business or personal issues. The uncovering of personal and corporate assumptions is part of the process of transformational learning (Mezirow, 1991). Lenz (1981) suggests that the development of an effective strategy requires a consistency between reality and the mental capacity, in terms of beliefs, perceptions and assumptions, of top management. Therefore, I believe that the development of my

mental capacity is a pre-requisite to the development and implementation of a new strategy.

A central theme in the work of Kegan (1982, 1994) is the mismatch between the demands of modern life and the mental capacity of the individual. Kegan (1994, p.153) notes that the attributes required of a worker in a post-modern world include:

- To invent one's own work;
- To be self-initiating, self-correcting and self-evaluating;
- To be guided by one's own visions at work;
- To take responsibility for what happens at work;
- To be accomplished masters of one's particular work roles;
- To conceive of the organisation from the outside in as a whole.

The demands to own our work and take responsibility for it are indicative of higher order mental demands, above the cross-categorical way of knowing. Kegan believes that a fourth order of consciousness, a "self-authored" (op. cit. p.185) meaning making system, is required to cope with the nature of modern work demands. He describes this level as "being able to step back enough from the social environment to generate an internal seat of judgement" (Kegan & Lahey, 2009 p.17). Persons operating at this level are able to set their own agenda and expectations, rather than be governed by the expectations of others. Research conducted by Kegan and his associates (Kegan &Lahey, 2009; Helsing et al., 2008) indicate that more than half the adult population have not reached this level of mental capacity (see Figure 2, p. 17). I have previously documented (in Essay One) the extent to which the 2009 construction industry recession invalidated my previously held assumptions and how my mental capacity was challenged to formulate an adequate response.

Kegan (1994) recognises that developing mental capacity only occurs when we reach and recognise the limits of our previous way of knowing. I believe that this occurred for me when faced with new demands after the 2009 recession. Berger (2004, p.336) refers to this point as the "growing edge".

I have previously identified the approach of Kegan as the most appropriate means of exploring the role of personal assumptions in my management practice. I have used the Immunity to Change process (Kegan & Lahey, 2009) as a tool to uncover the paradigmatic assumptions underlying my practice. The process of moving from a symptom or improvement goal to an underlying assumption is the product of critical reflection. Using this template, I have uncovered previously unrecognised assumptions governing my management practice. By recognising and moving these assumptions to object, I have been able to deepen the complexity of my meaning making. The qualitatively different management practice that results is reported in Essay Three.

I have approached the development of strategy from the perspective of transformational change. I believe that the discipline required to develop and maintain strategic choices requires me to operate at the self-authoring level. Given that strategy involves trade-offs, having the ability to say no and to focus on the chosen customer or market segments requires "an internal seat of authority" (Kegan & Lahey, 2009, p 17). A desire to expand the offering to suit all types, thereby diluting strategy may indicate meaning being constructed at a socialised or cross-categorical level.

It is a feature of business life that managers are exhorted to be more strategic. I believe that this is essentially a fourth order demand. This advice is pointless if the

mental capacity of the manager is insufficiently developed to cope with this level. My experience and the explorations in this essay indicate that abandoning a focus on the operational in favour of the strategic requires a more expansive mindset.

My exploration (Section 3.6) of the implications of Porter exposes the limitations of my previous operational approach. It did not provide me with the capacity to manage the changed environment facing our company. I outline a new strategy that I will apply to our operations. I consider that, in order to implement this, a necessary step is to develop my mental capacity so as to operate at the self-authoring level.

I apply the theories of Kegan (1982, 1994) using a vertical development process to move between the mental stages, i.e. advance my mental capacity. Vertical development is driven by the realisation by an individual that they have encountered the limits of their current meaning making system, such that it frustrates them in an area important to them and that sufficient support is provided to enable them to develop. This resonates with the observation of Kegan (1994) that the incentive for development only occurs when a person realises that they have come to the limit of their previous meaning making. I view the entire process as a vertical development opportunity for me.

Petrie (2014) sees the simultaneous presence of three conditions as necessary for vertical development:

- Heat experiences: where a leader experiences a complex challenge or situation which leads to the realisation that his current meaning making system is inadequate and leads to a search for new ways to make sense of the challenge.

- Colliding perspectives: where the leader is exposed to different world views, so as to challenge existing mental models and increase the number of perspectives available to the leader.
- Elevated sense making: the leader uses a process to integrate and make sense of these new perspectives, so as to allow for the emergence of a more advanced meaning making system.

This vertical development equates to the developmental growth outlined by Kegan (1994). The 2009 recession served as a heat experience, illustrating the limits of my current meaning making. The various readings and explorations in this Essay act as colliding perspectives. The Immunity to Change process (Kegan & Lahey, 2009) and the testing and experiments in Essay Three elevate my sense making by allowing me to incorporate these perspectives into my meaning making and developing the effectiveness of my management practice. I report on the outcome in the Transforming Practice Essay.

3.6 Strategic Positioning

3.6.1 Rationale for Considering Strategy

The 'burning platform' which I encountered in 2009 with the collapse of the construction industry exposed many of my assumptions concerning how my business operated. I became conscious of the need to review my management practice in terms of positioning our company to compete in the marketplace. The exploration of the role of assumptions in business (Section 3.4) led me to revisit the assumptions underlying my practice. The realisation that my assumptions regarding market conditions were no longer valid led me to the realisation that to succeed in the new environment I would need to analyse it and position the company in light of that analysis.

Strategy finds resonance in both literature on both succession and strategic management. Mitchell et al (2009) emphasise the importance of a successor examining and changing, if necessary, the strategies of predecessors. Ward (1987) reiterates the need for a family business to regenerate itself through strategic planning once it has outgrown previous strategies. Chalus-Sauvannet et al (2016) further develop this point, noting the motivation of successors to grow and develop the business on their return.

In addressing the strategic positioning of my business and by using first person research methods to achieve this, I am following the call of Whittington (2004) for strategy research to be more directly related to improving practice and to combine elements from the social sciences.

I have previously considered my assumptions regarding the external environment and their continued validity (Section 3.4). This is a necessary first step to analysing the external environment in which our company operates (Daly & Walsh, 2010). The seminal approach in this area is the activity based approach pioneered by Michael Porter. The Five Forces model he developed is perhaps the best known and certainly one of the most widely cited works in analysing the industry environment (Ghemawat, 2016).

I present the basic premise of the Five Forces model in Section 3.6.2 and discuss subsequent developments in strategic management in Section 3.6.3, including disruptive innovation, Blue Ocean strategy and value nets. Having considered the various approaches in this section, I propose a strategy model to guide my

development of a strategy primarily based on the Porter approach. I consider alternatives to the activity based approach and current modifications to Porter's work. The succeeding sections apply this framework to the development of strategy for my business.

3.6.2 Basic Premise of Porter's Five Forces Model

Strategy can be viewed in its simplest form as charting a long term direction for an organisation. It encompasses industry analysis, competitor analysis and positioning. Porter regards the fundamental lesson of strategy as positioning a company so as to do something unique and distinctive (Stonehouse & Snowdon, 2007). The approach of Porter is to firstly consider the external environment of the company as the first step in adopting a strategy, known as an activity-based approach. In contrast, the resource-based approach, pioneered by Penrose (1959), concentrates on the managerial resources available to the firm. Porter (1980) argues that the latter approach can lead to an excessive internal focus and ignores the impact of industry structure on strategy.

The basic premise of Porter is that competition in an industry is a function of its underlying economic structure and that the ability of an individual firm to deal with these external environmental factors determines its relative profitability. He locates his work in the fields of business strategy and industrial organisation economics (Sheehan and Foss, 2009). From a broader perspective, it follows from work carried out in the operations research or scientific management field, with Porter placing more emphasis on firm level strategy than these earlier works (op. cit.). The assumptions inherent in the Five Forces model emanate from its roots in the

manufacturing paradigm of the Industrial Age. I will evaluate its continuing relevance and validity in a later section.

Porter's framework shows industry profitability in terms of the interaction between the following forces:

- Power of suppliers;
- Power of buyers;
- Threat of new entrants;
- Threat of substitute products;
- Competitive rivalry amongst existing firms.

This is represented diagrammatically as follows:

Figure 4: The Five Forces Model of Michael Porter

Source: Porter (1980)

The collective strength of these forces determines the profit potential of an industry (Porter, 2008). I am applying this to the Irish concrete and quarry industry in order to gain a deeper understanding of the industry dynamics. The relative strength of the forces will determine the allocation of profit amongst the players in the supply chain.

The strategy adopted by an individual firm will determine its position within the industry and hence its relative performance. The function of an industry analysis utilising the five forces model is not solely to understand the attractiveness of the industry and its structural underpinning but to gain an insight into the roots of profitability.

There are parallels between the work of Porter in strategic positioning and that of the discussion of business assumptions in Section 3.4. Both focus on formulating a response to competitive threats emanating in the operating environment, both internal and external. Strategic positioning needs to be underpinned by a valid theory of business (Daly & Walsh, 2010). The assumptions regarding core competencies (Drucker, 1994) find expression in the value chain of activities in Porter (1985). Additionally, the focus in Drucker (1994) on constantly testing and renewing business assumptions adds to the dynamism of the Porter (1980) model. Drucker (1994) sees the selection of appropriate and relevant assumptions as being critical to future competitive advantage.

3.6.3 Development of strategy

Given developments in strategy since the publication of Porter, it is essential to evaluate the impact of these for my work and consider whether they undermine its suitability for my purposes. The central tenets of Porter, i.e. that strategy involves trade offs and the Five Forces model, have been developed in several directions in the intervening years since its introduction in 1979. The writings of Porter derive from the industrial economics sphere and as such are grounded in the Industrial Age. The impact of technological change in the intervening decades has been to loosen some of

the identified constraints (Normann, 2001). Porter's writing in recent years has focused extensively on developments reflecting the changes in the industrial landscape and on modifications to keep his work grounded in the current environment. In addition his later writings highlight that value creation cannot be viewed solely within the firm and that the value chain incorporates other firms in the industry supply chain and society as a whole (Porter, 2001, 2008, Porter and Kramer, 2011). This reflects a similar premise to that of the value net (Parolini, 1999). Indeed Kahkonen (2008) highlights the evolution of the value net concept from the value chain of Porter (1985) to encompass activities beyond that of a single firm.

A particular criticism of the Porter approach is its static nature and implicit acceptance of market equilibrium (Stonehouse & Snowdon, 2007). Porter (2008) recognises that a Five Forces analysis only represents a point in time and requires constant updating to maintain its relevance. While Porter has striven to keep his approach relevant in the transition from the Industrial to the Internet Age, other approaches to strategy have emerged since the Porter model gained prominence. Several take a Schumpterian perspective to strategy, seeing it as dynamic and never reaching equilibrium (Christensen, 1997, Kim and Mauborgne, 1995). Whereas these approaches argue that their work makes the Porter approach obsolete, a central tenet of this thesis is that these approaches are complementary to Porter and that considering them as an adjunct to Porter provides a more nuanced view of strategy.

Disruptive Innovation

Christensen (1997) introduces disruptive innovation to explain why certain industry leading firms are usurped by firms who develop at the lower end of the market. This approach views competition as a dynamic process and disruption as an intrinsic part

of this process. Challengers develop technologies which initially appeal to the lower end of the market and which the industry leaders ignore as they fear cannibalising higher margin business. Disruption emerges at the lower end of the market where the rate of improvement of incumbents exceeds the needs of users. Essentially, it changes the nature of the market and how it operates. The disrupter essentially develops a new approach to satisfying an existing customer need. Once the challenger technology improves in performance, it rapidly gains market share and can eclipse the incumbents. Disruption can happen quickly when the same services can be offered and there are no disadvantages to adopting the challenger technology. Christensen sees the approach of incumbents in ignoring the new technology as logical as they are protecting their investment in existing technology and existing margins. There are parallels with Drucker's Theory of the Business (1994) which highlights the extent to which firms and their managers fail to challenge business assumptions and hence fail to see the significance of new technologies. Both Drucker and Christensen view disruption in terms of the basis for competition shifting, but view it from differing perspectives - Drucker from that of the business model assumptions of the incumbent becoming obsolete and Christensen from that of the innovator finding an advantage, allowing them to penetrate the market. King & Baatartogtokh (2015), while disputing the facts of many of the cases highlighted by Christensen, see the value of the theory of disruptive innovation as providing warnings to incumbents and highlight the need to test business assumptions. Markides (2006) distinguishes between business model and technological disruption, with the former being the most difficult to defend against. This highlights the extent to which outdated assumptions underlie Christensen’s work.

However, replace the word “disruption” with “substitute” and the analysis provided by Christensen begins to look familiar. What Christensen sees as disruption, Porter sees as the threat of substitutes and new entrants. Both are approaches to analysing the structure and dynamics of competition. Similar to Drucker, Porter’s analysis is from the perspective of the incumbent firm, while Christensen takes a wider lens to include the wider competitive environment.

The Porter model shows the threat of substitutes and new entrants as key competitive forces impacting the competitive structure of an industry. The emergence of disruptive competitors, who adopt a different approach to the incumbents, is a key factor in shaping the industry structure. While Porter advises the need to update the industry analysis, he doesn't address the source of substitution. The disruptive innovator is both a substitute in that it meets the needs of customers in different ways and a new entrant in that it is a new competitor targeting existing customers. Disruptive innovation can be viewed as a non-traditional means of entry, not envisaged by Porter.

A criticism of the theory of disruptive innovation is that it implicitly assumes that there is no defence for incumbents when the disruptive product attains mass market stage (King and Baatartogtokh, 2015). In this case, the incumbents may not be in a position to adapt- particularly if the new entrant has an advantage in technology or processes. Porter’s (1985) value chain shows the activities required to create value- that of the disrupter may be more efficient or may have changed the market parameters. Porter advocates regular monitoring of changes in the composition of the competitive forces as a defence mechanism.

Weeks (2015) criticises disruption theory for its poor predictive approach and inherent bias towards survivors. It is certainly arguable that disruption is a normal part of the dynamics of innovation and competition, but only part of the story (Gobble, 2015). Interestingly, Christensen suggests the erection of barriers to entry by incumbents as a defence to disruption, implicitly borrowing from Porter. He views any innovation that is not disruptive as sustaining. However, whether an innovation is disruptive or sustaining is not evident until after the fact. Given that not all attempts at disruption will succeed, a progressive series of sustaining innovations may render disruption impossible. However, there is a danger of classifying every innovation or change in the market, at least ex-ante, as disruptive (Markides, 2006).

Blue Ocean Strategy

Bienenstock (2016) views disruption as emerging from an unexpectedly unbridgeable chasm and links this to the opening of new markets. This corresponds to another approach that has gained widespread recognition, namely the Blue Ocean strategy of Kim and Mauborgne (2005). Indeed, Agnihotri (2016) suggests that disruptive innovation is a source of creation of Blue Ocean. It advocates moving beyond competing for position to seek areas uncontested by incumbent firms- areas the authors refer to as ‘blue ocean’. By creating new market space, it makes competition irrelevant. This approach highlights an innovative approach to positioning, i.e. developing a market space that hitherto did not exist. This underlying approach owes much to Porter, in that it advocates adopting a position where competitive forces are weaker. Whether this is a relatively uncontested market space or the creation of a new market the principle is similar. It is a whole system approach similar to the Porter value chain. This approach extends the Porter approach by broadening the industry boundaries. Although Kim & Mauborgne (1995) view their approach as differing

from traditional industrial operations economics, it can be seen that the roots of their work originate in competitive strategy developed in that era.

In applying Blue Ocean strategy, a questioning approach is taken towards assumptions inherent in the industry's business model, again reflecting the influence of the literature on business assumptions (Section 3.4). Kim and Mauborgne (1995) outline four actions to challenge the established model:

- Reduce certain factors
- Eliminate some features
- Raise factors
- Create new features

Addressing these factors allows a firm to develop a new market space. It is primarily an extension of the principles of differentiation and positioning central to the Porter approach. It can also be seen that the creation of new market space has parallels with disruption theory, in that it challenges prevailing assumptions in an industry.

The idea of value innovation inherent in Blue Ocean strategy emphasises both low cost and differentiation- in other words, a tailored offering. Using Blue Ocean strategy provides a valuable mechanism to manage competitive rivalry. It encourages a firm to seek out uncontested markets and to develop applications that expand the market. However, I believe that its approach is derivative of approaches such as Porter and Christensen and is overly descriptive rather than having significant predictive value. It is a specific application of strategic positioning and it has relevance in focusing on those features important to the target market.

Collaborative Approaches

The Internet Age has spawned an interest in collaboration and a realisation that value is created across all aspects of the supply chain. Porter's analysis was of the value chain of a single company. Approaches such as the value net (Parolini, 1999) show how value is shared among different companies in the supply chain. It extends Porter's value chain across the activities of a number of companies, holding that the combination of these activities that create value. This is a valuable perspective in that it acknowledges the more collaborative environment fostered in the Internet Age. Whereas much of the work in this area concentrates on the technology sector, a challenge for my work is to incorporate these new perspectives and assess their relevance and applicability to a traditional industrial sector. By seeing value creation across the supply chain, I gain a wider perspective on the benefits of collaboration.

Porter's Five Forces model portrays the operating environment as a competition for profits between a firm and its suppliers, competitors and customers. This adversarial environment was a feature of the industrial economics background to his work. The Internet age has spawned an interest in collaborative efforts between these players. Chesbrough (2004) promotes the concept of open innovation- where internal and external ideas are used in innovation and also where internal ideas are taken to market through external channels. The concept of co-creation (Gratton, 2014) is that value is created when a firm collaborates with its customers to develop new products and processes. Zhang and Chen (2008) recognise new product development as an appropriate value co-creation activity. Value co-creation re-imagines the respective roles of producer and customer by seeing them as partners in the delivery of value.

This focus on sharing the benefits of innovation and collaboration are also reflected in literature on customer value proposition. Payne et al (2017) view the customer value proposition, i.e. what benefits the firm offers to its customers, as communicating the core strategy decisions of the firm. Although based on the customer experience, it is ultimately for the internal use of the firm. It views the customer experience in terms of needs satisfied (Lindic and da Silva, 2001) Whereas this concept originated in the marketing field (Anderson et al, 2006), it has resonance in the strategic field in communicating strategy within the firm and to the wider market. The communication of the strategic decisions of a company in terms of what it will do and how it creates value for customers has a value to the firm. While Porter (2001) considers the communication of the value proposition as a key aspect of strategic positioning, it is peripheral to his exposition.

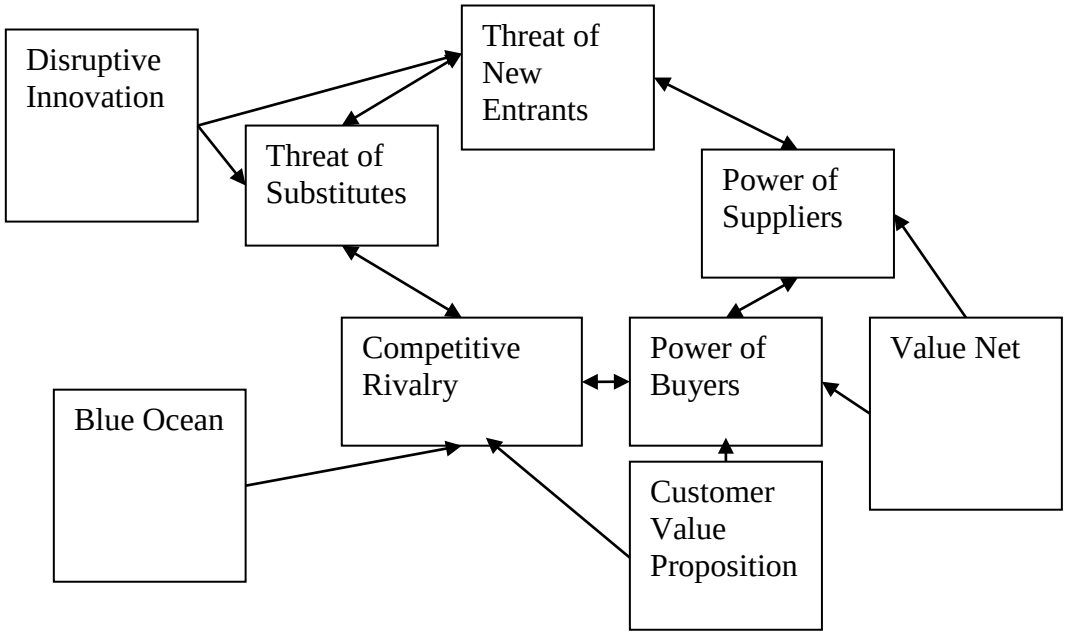
The strategy of our company in targeting particular sectors needs to be communicated both internally and in the market. The Porter approach focuses on aligning activities with the strategy. The customer value proposition plays an important role in communicating the positioning decisions to customers. It adds an external focus to what can be a closed system. Whereas Porter's value chain is local to the firm, the customer value proposition is essentially a marketing concept focused externally on the customer. Awareness of the customer value proposition and how it is communicated is central to the positioning strategy I adopt and test in Essay Three.

Discussion of Approach Adopted

Having considered the developments in strategy since the advent of the Five Forces model in 1980, it is clear that many of these works use similar conceptions or have

adapted concepts from the Porter approach. The linkages between the original framework and the approaches outlined earlier in this section are depicted in Figure 5.

Figure 5 Extension of Five Forces Model



Source: Author

The Porter framework has been shown to be applicable to a range of industries and business types (Kald, 2003; Renko et al, 2010) and I believe that it has application in my own situation. My analysis of the industry environment is contained in Appendix 2 and shows that the factors influencing the relative strength of the competitive forces identified by Porter to be of particular resonance in my own industry. This analysis shows that the Five Forces model contains pertinent factors to our industry. It demonstrates the extent to which the competitive forces of Porter continue to be

relevant to the industry and this relevance has not been radically altered in the intervening years since the model's development.

I suggest that that Porter provides a more aggregated view of the structural basis of competition in an industry and that his framework continues to provide a useful lens to analyse the industry environment. Recent work (Magretta, 2012; Gould & Desjardins, 2015; Ormanidhi & Stringa, 2008) support the continued relevance of the Porter approach in the digital age, primarily on grounds of its well defined structure and general applicability. Complementing the Porter analysis by incorporating perspectives from disruptive innovation, Blue Ocean, value nets and customer value proposition builds on what is one of the most widely accepted approaches in strategic management. Ghemawat (2016) highlights that Michael Porter is currently ranked at the top of the Thinker's 50 index of influential management thinkers, ahead of Christensen et al. This shows the resonance of his approach continuing through the Internet Age.

In addition, the Industrial Age environment that spawned Porter, Drucker and others may have disappeared in many industries but continues to be relevant in heavy extractive industries such as the quarry industry. In Appendix 1, I discuss the limited impact the digital age has had on the concrete industry. The manufacturing paradigm of the Industrial Age remains relevant to any consideration of the operating environment in such an industry. In the context of my own industry and given my consideration of more recent developments, I contend that it is appropriate to use the original formulation of the Five Forces model as a framework to identify the nature and extent of each force in driving profitability in the industry In addition, Agyapong et al (2016) commend the Porter approach as a suitable strategic approach to

managing family businesses on the basis of the enhanced performance of the firms in their study.

The principal addition of the newer approaches discussed is to provide a roadmap for implementing the chosen strategy. More recent empirical research has shown that hybrids of Porter's strategies are common in practice (Campbell-Hunt, 2000; Kim et al, 2004; Salavou, 2016). Whereas Porter (2008) argues that this approach indicated a lack of strategic focus and a firm risked being 'stuck in the middle', Salavou (2016) suggests that a greater variety of strategies exist in practice. They provide a fresh perspective in applying long established theories. A shortcoming in the Porter approach is the lack of specific guidance in implementation. Considering the advances in strategy from the publication of Porter in 1980, it is clear that there has been a move from a closed towards an open, collaborative environment. The positioning and resource approaches use the individual firm as the unit of analysis, whereas the open approaches also consider the wider ecosystem. In my opinion, this external focus adds to the strength of the positioning approach.

Relevance of Positioning Approach

While adopting the positioning approach after the explorations above, the continued relevance of the activity-based approach needs to be considered. While mindful of the value of the five forces model in understanding industry structure and sources of profitability, it is clear from the literature that the views of Porter are not universally accepted. A recurrent criticism is that his framework is static and not evolving with the marketplace (Barney, 1991; Stonehouse & Snowdon, 2007; Dulcic et al, 2012). Porter belongs in the activity-based school of strategy. Proponents of the alternative

resource based view contend that it is the managerial resources and core competencies that determine competitive advantage (Penrose, 1959; Kay, 2003; Galbreath and Galvin, 2008). Porter (2008) addresses these concerns, indicating although his research has shown industry structure to be stable over time it is constantly adjusting, with companies needing to regularly reassess the relative balance and dynamism of the five forces. He views strategy as dynamic in that it is focused on a desired market outcome rather than being built on preconceptions of the past or predictions of the future (Magretta, 2012). Miller & Dess (1993) lean towards Porter's viewpoint when viewing the alignment of strategy, organisation structure and operating environment as critical to superior performance. I concur with Sheehan and Foss (2009), who consider the activity and resource models as essentially complementary, in that they view activities as representing a key link between firm resources and strategic positions.

Approach Adopted to Strategy

My approach in this Essay is to use the approach of Porter (1980, 1985) to understand the industry environment in which I operate and use this to formulate a new strategy for our business. The Porter model has been widely empirically tested and found to be applicable to a wide range of industries, nationalities and firm sizes (Dess & Davis 1982; Darrow et al, 2001; Kald, 2003; Nickerson et al, 2001). Whereas previous international studies have shown its value in a wider SME context (Renko et al, 2010; Grigore, 2014), my approach is to apply the approach to a single company and report qualitatively on the results. I combine elements of disruption and collaboration in the implementation of the new strategy in Essay Three.

Ghemawat (2016) notes the longevity of Porter's Five Forces model, in that it continues to be relevant and widely cited in the strategic management literature. By regularly updating the five forces analysis, Porter's framework can be kept relevant to 'current' competitive conditions. By addressing the competitive forces applicable to the Irish quarry and concrete products industry, I show its applicability to the competitive environment in which I operate and its use in determining the appropriate strategy to employ. I have found that by considering industry developments in terms of the five forces and underlying assumptions, I can determine the adjustments to strategy required.

Strategic Positioning as an Adaptive Challenge

The formulation of strategy can be seen as a technical challenge, if the procedures involved in competitive analysis are well known. I have chosen the alternative approach of regarding the development of a strategic focus at organisational level as requiring an adaptive change, which requires a transformation in mindset. This approach implies that the change from an operational to a strategic focus is an adaptive process. I believe that the implementation of the strategy outlined above will not be successful if I do not transform my mindset as I will be unable to make the trade-offs necessary. This adaptive change increases my mental capacity and gives me the ability to effectively implement the strategy. While the Porter model is well known and tested, its application as part of an adaptive change process forms part of the originality of this work. This approach recognises that the implementation of strategy calls for meaning making constructed at the self-authoring level (Kegan, 1994). This is consistent with Hamel (2007) where management innovation delivers a deeper competitive advantage than innovation at the strategic or product levels.

A relevant entry from my Reflective Journal is:

"*The whole point of using Porter is to conduct an industry analysis using a well-defined and accepted framework. I can recognise that the Porter framework cannot be applied uncritically and that there are situations in which its use may not be appropriate. By adopting a fourth order perspective, it is possible to recognise the assumptions behind it in terms of a stable environment and the ability to adopt a discrete position. This recognition does not invalidate it or make it unsuitable for my purposes but allows me to use it without being beholden to its strictures. I use the Five Forces model as a particular lens while applying insights from other approaches as appropriate. By assessing the current position, I can evaluate strategic options and decide on the direction of travel. Kegan noted that a characteristic of fourth order meaning making is to evaluate theories and form our own judgement on them. The Porter framework is used as an apparatus of thought rather than a theory accepted uncritically. It is used on the basis that knowing where we are helps us to know where we want to go*"

The competitive analysis undertaken here is underpinned by *my own* assumptions, both those of which I am conscious of and those of which I am unaware. By engaging in a process of adaptive change, I uncover those assumptions to which I am subject and moving these to object. By using this adaptive approach, I add a different dimension to the traditional approach to strategic positioning.

3.6.4 Industry Factors Influencing Choice of Strategy

The object of the industry analysis presented in Appendix 2 is to generate an understanding of the dynamics of competition within the industry and provide the basis for the selection of the appropriate strategy for my own family owned business. The outcome of this analysis points to structural reasons for the poor profitability of the sector in recent years, quite separate from the collapse in the construction industry post 2008. In addition to the individual forces, in assessing the appropriate strategy, I need to consider the following industry-specific issues:

- Transport costs account for up to 40% of selling price. This makes delivery uneconomical at relatively short distances from the base. The perishable nature of fresh concrete is another limiting factor.[14]As noted by Porter (1980), this contributes to fragmentation and undermines the economies of scale for a given location. Even the market leaders can only hold their position by operating multiple locations.
- The power of suppliers, cement in particular, is such that input costs are generally similar for all competitors. Cement, transport, fuel, electricity and labour costs account for c.90% of costs. This makes cost leadership difficult to obtain, a factor common to fragmented industries. As there can only be one cost leader in an industry (Porter, 1985), it is difficult to see the emergence of a sustainable competitive advantage for our company from such a strategy.
- Most industry products are produced to Irish and European quality standards. These are quite prescriptive in the requirements for inputs and

[14] Fresh concrete will harden within two hours of production. Most project specifications require concrete to be placed in position within one hour of production.

processing methods. Therefore, the products are relatively homogenous and there is very little difference between the products of competing companies. This reduces switching costs between suppliers and strengthens the bargaining position of the buyer. The impact of this is to limit the effectiveness of a differentiation strategy based on product characteristics.

- The rural nature of our company means that large construction projects are infrequent, therefore large contractors are not regular customers.

A central tenet of the Five Forces approach is that strategy requires trade-offs, which logically involves declining commercial opportunities which are not compatible with our strategy. This is the point of maintaining strategic discipline. Whereas “an opportunistic strategy may work in the short run, it maximises the exposure of the firm to the intense competitive forces common in fragmented industries” (Porter, 1980, p. 211). The risk is primarily of retaliatory action from a competitor and a consequent round of price discounting. Price competition is a direct transfer of profits from the industry to its customers. My experience of the competitive cycles in our industry is that each operator ends up with basically the same market share but at a lower price point, which is greatly detrimental to profitability. It is indicative of a poor strategic awareness in our industry that these cycles are common.

I believe that fragmentation is a result of the underlying industry environment and will not be overcome, certainly not during my working career. It is therefore more appropriate to tailor our strategy to fit the challenges of these conditions rather than seek to overcome them. I believe that the future success of family owned operators

lies in understanding the underlying competitive forces and matching an appropriate strategy to these rather than in continually seeking short term advantage.

3.6.5 Buyer Segmentation within Industry

The preceding section has highlighted the extent to which buyer power is a significant factor in the competitive environment. Rather than viewing buyers as a homogenous group, I have found it more useful to segment buyer types based on the nature and volume of purchases. Using the template in Porter (1985), I have identified the following buyer segments in the quarry and concrete products markets:

- Large contractors including public bodies (representing c.55% of industry[15])
- SME contractors (25%)
- Commercial customers including farmers (15%)
- Private buyers- primarily self-build and DIY (< 5%)

The choice of an appropriate segment on which to focus is based on matching buyer needs to the strengths of an individual company. The following characteristics apply to each segment:

- Large contractors - highly familiar with product standards, purchase in large quantities and require associated discounts, demand high levels of technical services and may often bundle projects in different areas when seeking bids.
- SME contractors- need assistance on technical matters, including product standards but mainly at a general level, purchases may be irregular, operate in a local area, place more emphasis on customer service than price.

[15] The percentage of purchases by sector have been estimated from combining a number of sources including DKM(2016), Linesight (2017), Intertrade Ireland (2012) and internal company sales records

- Commercial- primarily farmers in rural areas, seasonal purchasers but these purchases can be significant to a concrete producer, place emphasis on continuity of relationships, require flexibility on credit terms to cater for the irregular cash flow associated with farming.
- Private- little knowledge of product standards, highly price sensitive with little emphasis on relationships as they are a one time purchaser.

From the perspective of a family-owned company operating in a rural area, I consider that the demands of a large contractor are more suited to the national players as they are in a position to bid on multi-location projects and will possess advanced technical support. The incidence of these large scale projects will necessarily be limited by our rural location, so that it would not be practical for us to put the technical support resources in place to service these. In addition, the scale of the national players may allow them to reduce the bargaining power of the buyer.

A key asset we possess is our local knowledge of our customers and their needs. By living in our area and interacting with our customers both socially and commercially, we have a knowledge that the area managers of our larger competitors cannot replicate. This advantage can only be leveraged into a commercial advantage by aligning our value chain with the requirements of these customer groups.

The private self-build sector is diminishing in size and value. Within our company, it has declined from 15% to less than 4% of sales[16]. From a strategic positioning perspective, it is therefore not relevant to this analysis.

[16] Figures accessed from internal sales records

The SME and commercial sectors are more attractive from the regional producer perspective due to the lesser intensity of competitive forces, particularly buyer power. Many features of family-owned concrete producers and buyer needs overlap to a considerable degree. The relevant characteristics are:

- Both supplier and customer are family businesses and exhibit cultural similarities;
- A personal service can be provided to customers;
- Long term relationships spanning generations are common;
- There is a sensitivity to cash flow patterns and payment arrangements can be tailored to individual circumstances;
- The technical requirements of these customers are relatively straightforward and match with the general level of technical expertise of the regional supplier;
- The supplier has an intimate knowledge of the local area and will generally live in the area, thus knowing many customers socially and tends to have personal knowledge of market trends at a micro level.

This local knowledge and contacts represent an effective mechanism towards coping with a fragmented industry and provides a smaller supplier with a positioning strategy.

3.6.6 Impact of Competitive Forces on Choice of Strategy

My analysis of the concrete and quarry products industry has indicated structural reasons for low profitability, in particular strong buyer power and competitive rivalry.

This is reflected in structurally low returns, even allowing for fluctuations in the construction business cycle. I have reviewed the published annual accounts for our company and a selection of our competitors (as presented in Appendix 3). The accounts show that return on capital for our company has dropped from an average of 23% prior to 2008 to 2% for the years 2009 to 2015. The results also indicate a negative return on capital for the competitor companies. It is an illustration of the unattractive industry structure as indicated by the earlier analysis, which was masked by the surge in volumes prior to 2008. One impact of this is to undermine the attractiveness of the industry to potential successors which has previously been shown as a significant factor in succession failure (King & Peng, 2013). The implication for me reinforces the view that doing nothing is not an option. To achieve an acceptable return on capital, I need to adopt a strategy that best manages the competitive forces applicable to our company.

Choice of Strategy

I now wish to consider how best to use this competitive analysis to formulate a strategy for our company. Thinking comprehensively about strategy can uncover opportunities for a company and the approach also allows a company to explore positioning within an industry (Porter, 2008).

Consistent with using the Porter approach, I have used his typology to characterise the choice of strategy. While other strategic approaches may suggest different strategies, I am initially focusing on the pure strategies indicated by Porter (1985), even though research suggests that hybrid strategies are actually more common in practice (Salavou, 2016). As an initial step I will focus on the generic strategies proposed by Porter to chart an overall direction. Implementing this may suggest variations from the

pure strategy suggested by Porter. The two basic competitive advantages a company can obtain are cost advantage and differentiation, which lead in turn to three generic strategies (Porter, 1985):

- Cost leadership - where a company seeks to become the lowest cost producer in its industry;
- Differentiation - where a company seeks to be unique in its industry on some characteristic valued by customers;
- Focus - where a company focuses on serving a particular market segment and tailors its strategy accordingly. This strategy has two variants – cost focus and differentiation focus.

The outcome of the analysis in Section 3.6.4 and 3.6.5 was the emergence of the SME and commercial sectors as the appropriate customer segments on which to focus. This approach is supported by Darrow et al (2001), who in a study of the U.S. hardware industry (which exhibits similar customer and supplier profiles to the concrete industry), concluded that smaller independent firms which focused on particular segments and the competitive advantages they had serving those segments generated superior returns. Allen & Helms (2006) identify the following relevant attributes of this differentiation focus strategy:

- Providing specialty services and products;
- Not servicing unprofitable customer segments;
- Targeting specific markets and customers;
- Providing superior customer service.

Porter (1985) stresses the imperative of the value chain (i.e. the collection of activities and how these are organised) of the company being tailored to and supporting its

strategy. The value chain of our company pursuing a differentiation strategy focused on these segments in our industry would need to have these attributes, in line with the above

- An emphasis on personal service and knowing all customers;
- Carrying a wide range of products to cater for the widest possible needs of customers in the chosen segments;
- Flexibility in delivery scheduling and capabilities to take account of the irregular and seasonal nature of purchases. This would involve a logistics fleet large enough to cope with seasonal variations but would necessarily incur diseconomies of scale due to not being fully utilized during slack periods;
- Flexibility in credit terms offered to reflect the cash flow patterns of customers;
- Community involvement such that the company and its staff are widely known in its area of operations;
- Fixed pricing of products so as to treat customers equally;
- Being in a position to provide technical support of a general nature, with more specialised support being available if required.

I apply these attributes to our value chain and report on the impact in the next Essay. In using this template, it is important to recognise that this approach adopts several elements of Blue Ocean strategy (Kim & Mauborgne, 2005) in focusing on those features important to the target market. In raising features such as service and reducing factors such as technical support, the offering is tailored to the selected customer group.

Reflecting on how I operated previously, it is clear that there was no clear strategy guiding my practice. Whereas this approach sufficed in a rising market, the 2009 recession has exposed its limitations. Porter (1985) refers to this as being "stuck in the middle" (p.16) and a manifestation of an inability to make strategic choices. My new approach replaces the previous unfocused sales efforts where significant resources were devoted to bidding on large contracts but where success rates were low. It implies our company leveraging its local orientation and knowledge. A greater focus will be applied to local relationships, rather than on individual transactions. There is a more focused sales effort directed at identifying and serving the needs of the local SME sector. This new approach will signal to the larger players in the market that our focus is not on the large contractor segment. I report in Essay Three on the results of the implementation of this strategy. However, to successfully implement this strategy, I must initially focus on the development of my own mental capacity (see Section 3.5).

3.6.7 Development of Niche Products

In addition to a concentration on customer segments, another aspect which I will explore is the development of niche products that may not be as susceptible to the intense competitive pressures applicable to mainstream undifferentiated products such as bulk stone fill. An outcome of the competitive analysis is to find areas where competitive pressures are lowest. I am applying this to both product and customer segments. The products I will seek to develop must offer shelter from competitive pressures, perhaps due to:

- Low volumes meaning that larger players may not be interested;

- Seasonal fluctuations in demand, necessitating long storage periods, making the product unattractive to larger players;
- The product being a small portion of overall costs to the buyer making him less price sensitive and more concerned with service and product quality;
- Specialised equipment required for production, meaning that other quarries could not quickly produce the product.

I will explore niche uses for our products, away from the mainstream construction markets. The changes in my business assumptions are summarised in Table 5 (p.83).

3.7 Comparison of Old and New Meaning Making

The explorations outlined in this Essay have allowed me to begin a movement towards an increasing level of mental complexity. The key features of this new meaning system are summarized in Table 6. The headings selected feature aspects of my management practice explored in the earlier sections of this Essay:

Table 6: Comparison of old and new management practice

	Old Management Practice	**New Management Practice**
Management Orientation	Operational focus-seeking operational efficiency	Strategic focus on areas where competitive advantage obtainable
Awareness of assumptions	Unaware of business and personal assumptions	Increased awareness of existence of assumptions and different levels of these
Impact of Succession	Meaning making subject to succession issues	Succession issues object
Appreciation of strategy	No discernable strategic approach	Awareness of strategic options and implications of each choice
Theory of Business	See Table 3, p.69	Theory of Family Business-see Table 5, p.83
Mental complexity	Predominately socialised	Moving towards self-

		authorship
Attitude to managing operating environment	Passive-accept that environment outside my control	Active- seeking out opportunities and managing competitive forces
Perceptions of role	Focus on expectations of others	Responsible for own work
Approach to customer segments	General competition for all contracts	Selective tendering based on competitive advantage
Product portfolio	Broad, undifferentiated	Focus on relevant niches

Source: Author

I implement and test the effectiveness of my new management practice in Essay Three.

3.8 Conclusion

This Essay documents my explorations in the areas of family business, the role of assumptions in business, vertical development and strategy. At the conclusion of Essay One, I noted that my mindset was predominately socialized. The explorations in this essay and my reflections upon them have served to begin the journey towards self-authorship.

I have explored how the 2009 recession exposed the limitations of my mental complexity and has provided the impetus for a process of vertical development. My explorations in the area of family business have shown how succession issues have influenced my management practice. I have developed an awareness that the role of a successor is not simply to perpetuate but to develop the business. I have explored the nature and role of assumptions, the process of uncovering these, the continual assessment of their validity and their value in underpinning strategy. I have considered the developments in strategy and concluded that the Porter Five Forces

model is the most appropriate for my requirements. I have used this to analyse the industry environment and develop an appropriate positioning strategy.

By grounding my explorations in my own experience, I use a first person approach to my explorations in this essay. In addition, by exploring how I made meaning of my experiences, I address the calls for research in this area by Leppaaho et al. (2016) and Fletcher et al. (2016). I demonstrate the continuing validity of both the Theory of Business and the Five Forces Model and how they relate to a modern business environment and to guide my new management practice. I extend Drucker to include assumptions regarding family and use this extended Theory of Family Business to outline the assumptions inherent in my new meaning making system. I believe that by making these assumptions object, I am aware of them and can monitor their continued applicability. I distinguish between business and personal assumptions using Brookfield's (1995) categorisation.

The final part of this Portfolio, Transforming Practice, documents the impact of this expanded meaning making system of my management practice.

Transforming Practice

4.1 Introduction

The focus of this Essay is the impact on my management practice resulting from the adaptive changes occasioned by the impact of the readings from the previous phase. I use this Essay to demonstrate the impact of these changes and the outcomes they have generated on the performance of the business. Transformation implies a qualitative difference in my management practice and in this Essay I demonstrate the impact of my transformation and compare it to my previous practice.

The fundamental shift being sought in the quality of my meaning making is becoming more self-authored. Kegan (1994) characterises self-authorship in terms of becoming "guided by our own visions at work" (p.172). I identify the journey from old to new meaning making systems as encouraging me to adapt my management practice to become more strategic, to move towards an agenda setting role rather than being reactive to operational issues. Implementing the Immunity to Change programme has allowed me to see my previous reluctance to delegate in terms of a socialised mind set. I have traced the origins of these behaviours to my assumptions of being the successor in a family business. By releasing myself from these and the associated behaviours, I have moved from a socialised mindset towards a position of becoming psychologically "self-employed" (Kegan, 1994, p.137). This has led to a release of managerial services which can now be channelled into business development. This shift in meaning making has enhanced my effectiveness as a practitioner and removed the psychological pressures that I had identified.

This transformation can be seen as an action research project of its own. The various projects and experiments described in this essay can be seen as elements, subordinate to the overall project. Coghlan & Brannick (2014) consider that an action research project has three main elements:

- A good story reflecting the stages of action research;
- Reflection and making sense of the experience;
- Extrapolation of theory or actionable knowledge;

The first two elements are provided through this Essay and the final element is contained within the Portfolio Conclusion.

The purpose of this Essay is not simply to describe what has happened to my management practice but to reflect on these changes in the context of the development of my meaning making.

The first part of this Essay, Section 4.3, reports the transformation of my management practice by dealing with its hegemonic assumptions, rooted in my family business background. I then move to address the impact that releasing these assumptions had on my experience managing my business. The underlying factor in all aspects relates to how I adapted to operating more strategically and with a greater focus on particular customer and product segments. The release of these hegemonic assumptions has allowed a more strategic, innovative practice to develop.

This new approach is evident in a number of areas – specifically, seeking new uses for previously underused products, seeking new markets for existing products and developing new products that target a particular niche. It has spawned an interest in

collaboration and an openness that has led to innovations, partnerships and an awareness of how value is created throughout the value chain. In these cases, a questioning of established customs and assumptions was involved, both within me and in the wider industry. These are addressed in Sections 4.4, 4.5 and 4.6, which fit into the aim of action research, i.e. both improving practice and generating learning (McNiff & Whitehead, 2010).

Section 4.7 involves reflecting on the changes that have occurred and evaluating their effectiveness. This is assessed at both a subjective level, in terms of my professional effectiveness and on a more objective level, in terms of the positioning of the business and the impact on financial performance of the business.

4.2 Research Design and Methods

The research design adopted for this project is a form of first person action research. This involves the researcher engaging in "self-learning in action, learning to reflect, to engage in deep inquiry about themselves, their assumptions and their practices" (Coghlan, 2007, p. 299). It leads to the solution to a real world problem, namely how can I respond to the changed environment which my company finds itself post the construction market collapse? I aim for communicative validity in this work, where I present the research with carefully argued claims and present sufficient supporting evidence (Sandberg, 2006). There are elements of participatory action research in the project described in Section 4.5.1- I must be conscious of the added ethical dimension in this instance (Lofman et al, 2004).

In terms of the traditional action research cycle, this essay comprises the taking action and evaluation of the overall project. The various experiments outlined here are constructed as sub-cycles but are action research projects of their own.

As I am undertaking research work within my own organisation, I am conscious of the inherent risks to quality. I use the criteria outlined by Coghlan and Shani (2014) to address the concerns of pre-understanding, role duality and organisational politics which are inherent and have the capacity to undermine quality in insider action research. Given the nature of my organisation, I am most concerned by the issues of pre-understanding and role duality. By continually questioning and testing my assumptions, both business and personal, I manage the issue of pre-understanding. By imagining myself as both researcher and practitioner and being cognisant of the need to interact with a wider audience and generate actionable knowledge, I manage the role duality issue.

4.3 Transformation of Management Practice

In Essay Two, I explored approaches to developing mental complexity and decided on using Kegan's (2009) Immunity to Change framework to overcome my personal assumptions. With the assistance of a facilitator, I worked through the steps outlined by Kegan and Lahey (2009) to release myself from the assumption. I have documented the process and templates used in Appendix 4. This process has addressed the predominant hegemonic assumption in my practice, namely that I have not achieved my position on merit. The impact of this Big Assumption caused me to maintain an overly operational focus to the detriment of a strategic viewpoint.

Impact on Management Practice

The resultant change has freed up managerial resources within me and allowed me to pursue more productive opportunities for my business. I no longer feel pressurised to be seen in the office at all times. I feel free to set my own agenda and to decide upon my own priorities. In specific terms, this has allowed me to develop our company in a number of different directions- launching new products, seeking new markets and adopting a new stance towards the pricing of tenders in the context of a deeper understanding of the context of the industry.

From a mental complexity perspective, the effect has been to move to a greater level of complexity. I no longer feel constrained by my previous assumptions as to my role. The Big Assumption uncovered by the Immunity to Change process was indicative of a socialised level of meaning making (Kegan, 1994), where my view of the expectations of others governed my self image and behaviour. After the Immunity to Change process, I now feel in greater control of my own agenda. In terms of the formulation of my key assumptions (Section 3.4) using the criteria of Brookfield (1995), I have revised my perspective as follows:

Table 7: Outcome of Immunity to Change Process

	Original Assumption	**New Perspective**
Paradigmatic	That I have not achieved my position on merit	This assumption is not valid and I am no longer subject to it. I can now make meaning at a more advanced level
Prescriptive	That I need to focus on operational matters to be effective in my role	My role is strategic in nature and focuses on allocation of resources and setting the agenda
Causal	That being present in the office is the best means of doing my job	The demands of my role lead me to decide where best my time is allocated

Source: Author

On one level, this change might be seen as "technical" (Kegan & Lahey, 2009, p.29) as it involved changes to work practices. However from my perspective, I see it as an "adaptive" (op. cit. p.29) process as it changed my perspective on my role within the company. I had to transform myself in order to transform my work practices. I had personal unused productive resources - my planning and directing roles within the company were being unused because of my preoccupation with doing routine office tasks that would be equally well performed by others. The release of these unused managerial resources could now be applied to business development. I believe that this adaptive change process can benefit the education of practitioners, both in family business and generally.

4.4 Challenging Business Assumptions

Focusing on developing a more strategic viewpoint led me to question many of the assumptions on which my management practice was based. Rather than taking operating conditions as given, I now consider that I can question accepted practices and evaluate the continuing validity or not of many of my business assumptions.

Making Better use of Resources

I had attributed the poor company profitability from 2009 to 2015 to the impact of the construction industry recession. I had not looked at the extent to which outdated assumptions might have hindered my response. One particular area which I looked at was maximising the profitability of our existing product range. I was concerned by the recurring losses in our readymix concrete products. This market is characterised by intense competitive rivalry caused by strong underlying unfavourable competitive forces.

I began to investigate the use of manufactured sand in our concrete products. The use of manufactured sand as a raw material in the manufacturing process has emerged in the concrete industry in the last decade.[17] The primary reasons were:

- Lack of availability of natural sand as certain regions do not have natural sand deposits. This leads to the material being expensive by the time it is transported to a concrete plant due to high transport costs given the bulky nature of the product;
- Emergence of new processing equipment that could transform low grade quarry surplus screenings[18] to valuable saleable products;

[17] Sand is an intrinsic raw material in the manufacture of concrete, comprising approximately 40% by weight of the finished product

- Emergence of chemical admixtures to overcome the physical limitations of manufactured sand in the final concrete product;

I had encountered a belief within the Irish construction industry that only natural sand could be used in the manufacture of concrete. It was believed by building contractors that manufactured sand caused the product to become coarse and exhibit poor workability (a measure of quality). This view was also prevalent amongst practitioners in the concrete industry.

I would previously have subscribed to this view. I had believed that manufactured sand was an inferior product and would diminish the quality of the finished product. To an extent I was 'subject to' the prevailing industry wisdom (Kegan, 1994). It was an assumption that to this point I had never questioned. I preferred to buy supplies of natural sand, at considerable cost. Market conditions of the type prevailing pre-2008 allowed this. Despite having both the quarry screenings available and hence potential supplies of manufactured sand on site, I continued to use it as a low grade fill product. Penrose (1959) alludes to the benefits of productively using unused resources - this material was a clear example of this. Evidence was mounting within the international trade press as to the compelling case for using manufactured sand in the production of concrete (QMJ, 2014, 2015). This was primarily outside Ireland, in countries where supplies of natural sand had been exhausted. The belief still existed within Irish industry that it would be an inferior product.

A central tenet of Porter is the value chain of the company- the collection of activities that drive value (Porter, 1985). Having set out and analysed the value chain of our

[18] The surplus screenings are derived directly from quarry blasting. Changes to Irish building regulations in 2013 have prohibited their use as fill material on construction sites which had been customary.

company as it applied to concrete, particularly in the market conditions post-2008, I decided to experiment with the use of manufactured sand. Having previously classified quarry screenings as a low grade product, I began to consider whether the opportunity existed to add value to it by further processing. As part of the acquisition of a rival producer in 2014, we had acquired processing plant suitable for converting low grade quarry waste into aggregates suitable for concrete manufacture. By means of desktop studies and discussion with chemical producers' technical representatives, I researched different chemical admixtures to add to the concrete mix to compensate for the different physical characteristics of manufactured sand as compared to natural sand. A significant amount of blending and testing was undertaken to replicate as closely as possible the physical properties of natural sand. I developed a graduated plan, allowing for progressively higher proportions of manufactured sand to be used in production, with each successive step being dependant on the outcome of quality control testing of the previous step. This incremental approach was primarily for my own benefit, as I remained sceptical as to the suitability of the replacement product. This approach also helped with the conditioning of customers and staff to a change in the product.

The results of the experiment were impressive. We initially replaced 25% of the natural sand in all concrete products and over the succeeding months have increased this to 80%. This has been achieved with no discernible difference in product quality. Customers have been surveyed and they have experienced no change in the performance of the finished product.

This project has progressed since Spring 2015. The passage of time has led to a longer evaluation and reflection period. I have observed that the more specialised, niche

concrete products we supply are not suitable for the manufactured sand product. In particular, we supply readymix concrete products for the slip form kerbing[19] market which is specialist in nature. As these products are infrequently purchased, being dependent on local building projects, the effects of using manufactured sand were not apparent within the initial evaluation period. We discovered that the manufactured sand was compromising the quality of this product. These are high margin products and are not widely produced. I had the conflicting goals of maximising the value of the quarry output and of protecting a profitable niche product, in which both buyer power and competitive rivalry are minimised. On reflection, I decided that the maintenance of this niche product was commercially the most attractive option. I therefore abandoned the use of manufactured sand in this product while retaining it for the remainder of our concrete products.

The traditional steps of plan, action, observation and reflection used in action research were employed in this experiment (McNiff & Whitehead, 2010). Reviewing and reflecting on each step allowed for confidence to develop in the product. Data on the results of each step and allowed for progression to the next step (O'Brien, 1998).

The outcome of the experiment can be seen on two levels:

- From the perspective of the company, an immediate financial saving resulted as a bought-in product has been replaced by the lower cost of processing of a previous waste product. This impacts on the internal value creation and reduces the supplier power of sand suppliers to the company

[19] Slipform kerbing is the process of constructing a pavement side kerb using fresh concrete as opposed to precast concrete segments. It is being increasingly used in road maintenance projects due to its greater durability and low maintenance costs.

(Porter, 1980). By mitigating the power of sand suppliers, it allows for us to have more control over the inputs in our products.

- From a personal perspective, the assumption that manufactured sand was not suitable in concrete production was proved not to be correct. I have learned not to subscribe blindly to perceived industry knowledge but to research and experiment myself. It was a change in mindset that allowed me to progress this initiative.

The narrative element of this section focuses on the 'sayings and doings (Kemmis, 2014) but focusing on the 'relatings' is necessary to adopt a wider focus. The broader outcome was that by adopting a more strategic perspective towards the utilisation of the output of the quarry, I was able to make more effective use of resources. The raw material used in this experiment had been available at all stages. Penrose (1959) notes the benefit to the firm of using "resources in different ways and for different purposes if the people who work with them get different ideas about how they can be used" (p.67). A key outcome was the ability to see things differently for the business by asking different questions of myself. The barrier to the use of manufactured sand had been my own perception and adherence to outdated assumptions rather than any technical impediment.

The action research methods adopted were appropriate to the iteration inherent in the succession of trials. It shares characteristics of research and development trials in that progression is dependent on the outcome of the preceding step. This template may prove beneficial to other SME practitioners, an implication which I discuss in the Portfolio Conclusion.

Implications of Sand Project on Innovation

The role of innovation in SME's is a common one in business research media. Many business features on innovation focus on the technology sector. Having discussed the extent to which the quarry industry still exhibits many characteristics of the Industrial Age, this has limited the extent to which innovation is prioritised. The experiment with manufactured sand demonstrates the extent to which innovation can be pursued in our industry. It is clear from my experience that one of the primary barriers to innovation is the mindset of the practitioner. My experience has shown that innovation requires an awareness of and inclination to question accepted wisdom in an industry. In my case, I was previously not inclined towards question core operating assumptions. The impact of the adaptive change process was to instigate a process that allowed me to challenge prevailing wisdom in the industry and fostered an attitude that led to openness to experimentation. I discuss the wider implications for practitioners in the Portfolio Conclusion.

A precondition to adaptive change in my case was moving beyond the accepted wisdom of the industry, what Brookfield (1995) refers to as the hegemonic assumptions. Using the Kegan and Lahey (2009) Immunity to Change process as a tool, I engaged in a process to move these and related assumptions to object. This allowed me to examine these and question their validity. In the case of manufactured sand, it can be seen that the assumption of poorer quality concrete was only true in limited circumstances.

Similar to my explorations of strategy, I contend that having the mental capacity to engage in such a process is a higher order demand (Kegan, 1994). Only by engaging in this adaptive change process was I in a position to question *what I accepted*

heretofore as accepted industry wisdom. In my case, it is impossible to separate freedom to innovate from freedom from limiting assumptions. The two processes worked in tandem but I can not imagine progressing towards an innovative mind in the absence of the adaptive change. In a traditional environment such as my industry, this implication may not be fully appreciated.

The work of Christensen (1997) on disruptive innovation highlights the role of outside actors in disrupting an established industry. The parallel can also be drawn to adapting processes from other industries. The manufacturing plant for sand evolved from developments in the waste recycling industry which were refined and applied by plant manufacturers for the quarry industry. Equally the mentality of using all extracted material in a quarry in production stems from the recycling industry. What is particularly innovative about our approach is the use of surplus quarry scalpings to generate the product- based on my industry knowledge, this is a new approach to the manufactured sand issue. I believe that the crucial insight from my perspective was recognising the inherent but hidden value in the waste product that was being over-produced. This has had a positive financial benefit on our company but, from the perspective of the company that previously supplied us with sand, our innovation meant a substantial fall in sales volumes. From our previous supplier's perspective, it can be characterised as a disruptive substitution (combining Porter and Christensen).

This characterisation based on perspective highlights that, what to one company is a successful innovation is for another, the incumbent, disruptive. From our sand supplier's perspective and which we accepted, a good quality and value product was being produced and supplied. It was the advent of greater mental complexity on my part that allowed me to look beyond this characterisation. Our supplier could not have done anything different to deal with the disruption caused by our new manufacturing

process and this was a logical response on his part. It illustrates the point by Christensen that ignoring a disruptive innovation is at the time the logical reaction of an incumbent, as to do different would upset their business model. However, this case illustrates the manner in which disruptive innovations can appear in any industry.

There are close links between disruptive innovation and Porter's threats of substitution and new entrants. A key implication of Christensen is that the emergence of a new entrant with a substitute product is of most concern to incumbents. It can be seen that the emergence of manufactured sand as a substitute for natural sand originated in the lower end of the market and gradually rose to all but the premium niches of the concrete market. This mirrors many of the examples presented in Christensen's research.

In this instance, the disruption caused to our sand supplier was inadvertent, caused by our desire to more efficiently use existing resources. This raises the more general observation that a desire to meet a customer need, internal or external, may act as the trigger for innovation. The innovator is not necessarily beholden to the conventional wisdom of the industry and may see an alternative means of addressing the same customer need. This case demonstrates the extent to which innovation can lead to disruption to existing suppliers and how we altered our relationship with this supplier. I address the wider implications for practitioners in the Portfolio Conclusion.

4.5 Application of Strategic Positioning

4.5.1 Diversifying product range

As part of my analysis of strategic positioning, I became aware of the importance of focusing on a position where the competitive forces are weakest and where an

opportunity existed for new product development. Porter (1980) suggests that where the input value to the buyers own process is comparatively minor, the pricing demands of the buyer are likely to be reduced. This is in contrast to mainstream quarry products where intense price competition is the norm. I began to seek such supply opportunities within our product range.

In Essay Two, I identified the development of niche products as a means to manage competitive forces. The area in which I progressed this in practice was that of the use of limestone in industrial processes. Finely-ground limestone is used as an input in animal feeds, paint, toothpaste and electricity generating industries. In each case, the input cost of the limestone is relatively low in comparison to the price of the finished product. The quality of the finished product is the predominant concern of these customer groups. This means that non-price attributes such as consistent grading of the product, traceability, security of supply and integration with supply chain logistics are of higher importance to these customers than price. From discussions with peers, review of industry press and industry statistics, this appears to be a growth area and offers higher margins than standard limestone products due to competitive forces being lower. The specialised nature of the products and the scale of capital investment involved have led to a small number of suppliers in this niche.

While pursuing efforts to identify a niche where competitive forces were weakest, I was approached in early 2016 by the production manager of a national fertiliser producer to investigate the possibility of sourcing filler grit[20] for their production process. Their regular supplier had retired from business and given the specialised nature of their requirement, they were finding it difficult to locate a cost effective

[20] Filler grit consists of limestone particles from 2-4mm. They are used as a bulking agent in the compounding and mixing of fertilisers.

replacement supplier. The product was a limestone grit sized from 2mm to 4mm. This is beyond the processing capabilities of conventional quarrying equipment. In addition, due to the requirements of the customer's own production process the product had to be kept under cover. A further complication was that the customer purchased the product in a concentrated fashion each Spring, thus necessitating the long term storage of the product by the supplier due to the demand surge exceeding production capability.

Previously, the above range of factors would have led me to decline the opportunity. I instead began to investigate the possibilities associated with it. Using the Porter framework as a guide, I could see its attractiveness in the following terms:

- The product was a minor cost for the buyer so that compliance with specifications and security of supply were greater considerations than price, thus reducing pricing pressures;
- The specifications were demanding and the tonnage required for the product was by industry standards low so that most quarry operators, particularly the multiples, would not find it an attractive prospect;
- Capital investment would be required to give a stable long term supply of the product. This again lessened the competitive rivalry for the contract;
- The customer was prepared to offer a long term contract which is unusual in the industry but which fitted with the relative value which he placed on the product;

Having revised many of my previous business assumptions, I had discounted focusing on high volume and low margin products so that I now saw this opportunity as an attractive proposition.

Using the classic positioning framework of Porter (1980) to characterise the user's perspective, it can be seen that the approach to us was an attempt by them to manage their own competitive forces. By sourcing a long term supply for a relatively low cost aspect of their production inputs, they were protecting themselves from supplier power emanating from larger players in the industrial limestone market.

Iteration of Production Trials

I adopted action research methods to pursue this project. The process went through a number of iterations as I progressed through the project. The challenge was to devise a cost effective production process and establish a competitive advantage in this niche. The nature of the product meant that, once established in this niche, competitive forces were likely to be muted.

I initially thought of using surplus quarry screenings as a raw material for the fertiliser grit. At one stage, our business had a large surplus of this product. We tested the product and realised that the screening equipment on hand was not suitable for the task. In addition, we had progressed with the manufactured sand product and were using the surplus screenings as a base material for the sand. If we removed the grit from this, our input material for manufactured sand would become unsuitable. I evaluated the respective returns from abandoning the manufactured sand and realised that the return in the short term from the grit would be insufficient to compensate.

The next cycle investigated the possibility of sourcing equipment to specifically manufacture and process the product. I travelled to Germany to conduct trials on a new type of crushing machine to facilitate a long term supply of the product. The

crucial aspect of this trial was that all the output of the machine would be saleable, the-4mm grade for fertiliser grit and the -2mm grade for agricultural lime. The trials were not successful in that the required -4mm product only comprised 30% of the output while the undersized -2mm (70% of the output) product did not meet the specifications for agricultural lime. The trials were suspended pending further evaluation. The manufacturer was about to launch a new version of the product which offered the possibility of attaining both objectives. I believe this still represents the most suitable long term approach as it utilises a 10mm stone as an input. This is in large oversupply in our business and would represent a value added approach, without depriving us of saleable product for other product lines.

Reflection on this phase of trials led me to consider this avenue as more of a long term approach. The crushing machine was in development in Germany and would not be available for at least another year. Meanwhile, we had committed to supplying fertiliser grit for the coming season. The market opportunity was in danger of being exploited by another company if we did not take immediate steps to produce the product.

Our customer was anxious for us to have product available for the 2016/2017 season commencing in December 2016. They wished to evaluate our product in terms of compatibility with their production process and evaluate our performance in terms of product quality and supply reliability. As we would not have bespoke equipment by then, it was necessary to improvise.

To satisfy this requirement I modified an existing mobile screening plant which we owned and hired additional machinery. In addition, as the customer wanted a dry

product to incorporate into his own production process, it was necessary to devise a method of drying. Diesel fuelled drum dryers are common in the industry but demanded a considerable capital outlay that would not be justified given the relatively low tonnages involved. I considered other industries where drying was necessary. I was familiar with the air drier systems used in the grain industry to dry crops prior to processing. I located a grain facility that was not being utilised and negotiated the use of it to conduct experiments in drying stone. By varying the depth of material and spacing of air vents we could dry the material in three days to moisture levels acceptable to our customer. While the drying trials proved successful, we had not settled on a cost for the process. Initial estimates projected the cost to be 70% of the selling price of the grit. This meant that this drying process was unviable from a long term financial perspective although it satisfied the initial requirement.

Customer trials began in October 2016. The key issue for our customer was that the product be dry, dust free with a particle size compatible with that of a fertiliser pellet. On each front the product performed satisfactorily. We received a preliminary order for the product commencing December 2016.

I had priced this project on a target costing model, working with the customer to arrive at a value where the cost of the filler was viable for them and endeavouring to design a production process to produce the product at that cost. The customer indicated their price target for the material and I worked with them to design the production process to meet that target. This was a collaborative process as opposed to the normal adversarial model common in the construction industry. The trials were focused on developing the product at the lowest possible capital cost. I attempted not to be bound by the assumptions of the industry that an expensive processing plant was

necessary for this product, which resulted in my attempts to make innovative uses of existing plant.

As a stopgap, I still required dry grit to fulfil my contractual obligations for the 2016/17 season. I negotiated a greatly reduced rate with the grain store as they had spare capacity and were willing to operate on a marginal cost basis, where I paid the heating costs along with a contribution towards fixed costs. This allows me to monitor the relative drying costs of different methods. It also allows me to focus on the logistics involved in transporting the product to three different depots around the south of the country.

Reflecting on these stages of experimentation have led to the realisation that drying is a significant cost that undermines the viability of a wet processing method. While more straightforward from production terms, it does not offer the lowest overall production cost. Additionally, I realised that we had no expertise in drying and the installation of drying equipment would lead to a more rigorous and costly regulatory regime.[21] These factors led me to discount this process as a long term option.

Having my attempts at drying proved unviable was a turning point. It meant that I was dissuaded from investing in the wet processing route and purchasing drying equipment. It also made me aware of the cost of drying products. I had been in discussion with the manufacturer of a sand plant about investing in a wet process. While it was an alternative means of producing grit, it would have tied us to a drying

[21] An air emissions licence would be required from the Environmental Protection Agency, which would impose more onerous requirements than the existing planning permission.

plant. I realised that the material could be captured dry from our stone production plant and if kept dry could be screened using the Bivitec screen described below.

A relevant extract from my Reflective Journal is:

"The cost of drying is a particular surprise. I had no idea of the amount of diesel consumed by a dryer. I had the production process mapped out using a wet process and had identified suitable machinery for the project. Another complication of which I have recently become aware is that diesel dried stone cannot be put into the food chain due to the risk of contamination. A process that eliminates drying holds more promise. My original idea of producing grit from a wet process will have to be abandoned and the production process re-imagined Disruption using the wet process was the original goal but this approach is not feasible. I must re-imagine the production process and pivot to a dry method. My focus will now switch to extracting 2-4 mm grit from our existing dry quarry dust. This now appears to be the best fit with the objectives of the project.".

The experimentation with various production and screening methods enabled us to try different configurations and switch between wet and dry processing. As the process evolved, I have realised that the dry process is the better investment due to:

- Elimination of drying costs;
- Elimination of internal transport costs as all activities can be carried out in the quarry;
- The product can be produced year round provided warehouse space is available for storage.

The limiting factor in arriving at this decision was the availability of specialist screening equipment.

By further research, I discovered a screen used primarily in the recycling industry. While not widely used in the quarry industry, it can easily be adapted to produce the required material. Tests have demonstrated that it can produce the grit to a sufficient quality while using a dry quarry dust as an input. While awaiting the development of a suitable crusher, we can use surplus quarry dust as a feedstock. It involves a considerable capital investment in a screening plant and an industrial specification warehouse to store the finished product. However, the various trials and experiments have demonstrated this to be the optimal production method. In addition, the relative profitability of this product compared to other quarry products makes this the most attractive investment opportunity currently available to us.

Reflection and Wider Lens

Reflection on this project involves reviewing the wider implications, both for my own practice and in terms of implications for similar companies. Nicolini (2009) refers to this process as ‘zooming out’, drawing out the wider implications of the project. Brookfield (2005) recommends the use of different lenses in critical reflection; our perspective, those of colleagues, other participants and theory. In this section, I review the project and its outcomes through different lenses.

Management Practice

I initially view this though an autobiographical lens to discover the impact on my management practice. This project demonstrates two aspects of my changed management practice. By being aware of the strategic benefits of diversification into a

new but related aspect of quarry products, I am initiating a product line which provides opportunities outside the construction market. The development of this product line can be seen as a logical outcome of attempts to manage the competitive forces pertaining to our company. The complicated nature of production means that it is of limited interest to competitors and hence competitive rivalry is muted. The customer had to initiate contact as they were not able to source a reliable supply of grit, therefore, supplier power was not a particular concern. To mitigate the danger of being a captive supplier reliant on one customer, it will be necessary to seek custom from other fertiliser producers within the area once we have developed the production process fully.

If operating under my previous meaning making system, which emphasised the operational over the strategic, I would neither looked for nor seen an opportunity in this product. I would have considered the limited tonnages and extra work as unjustifiable. A reflection on this leads me to consider whether I passed up on similar opportunities in the past. Under my old Theory of Business, any product opportunity requiring specialist equipment or handling would not have been pursued.

Customer Perspective

The project was my first experience of collaborating with a customer to create a new product. The customer knew the parameters of what was required and worked with us to develop the product. While new to our company, it is indicative of a movement towards collaboration in new product development. This readjustment of the roles of customers and suppliers is a co-creation activity as outlined by Zhang and Chen (2008).While common in the technology industry, it has been slow to make an impact in traditional industries such as ours. Having been accustomed to adversarial dealings

with customers, I consider this aspect of value co-creation to be a management innovation, in that it required an adjustment to previously held mental models (Hamel, 2007). From my perspective, the key point was in loosening my control over the development process. Hamel reinforces other authors such as Kegan and Lahey(2009) and Senge (1992) who view management development as an adaptive change process. It was the impact of this adaptive change and the wider world view it encouraged, that made me receptive to engaging in this manner.

Collaborator's Perspectives

It has been instructive to gain awareness of the viewpoints of those in other industries. My experiences of constant price competition in the quarry products markets conditioned me to over-focus on price competitiveness. I realise now the extent to which this may not be the case in all markets. Both our drying partner and grit customer operate in higher margin markets and both have questioned my approach to margin. Whereas I consider the margin on this product highly satisfactory, this is in the context of a commoditised quarry products market. It highlights the issue that value to the customer, in some cases, is based on the performance of the product. My approach to pricing would previously be of the reverse auction variety - to initially offer a price in excess of what I was prepared to accept and negotiate downwards. My prior experiences had conditioned me to expect that a customer would always negotiate solely on price.

The experience of collaboration with the drying partner was a new experience for us. The drying partner was a long term customer in the grain industry with whom we had a strong relationship. It was interesting to hear his perspective as to the low margin we obtained on our product. Whereas the quarry industry operates on less than 10%

margins, our drying partner was accustomed to much higher gross margins. His perspective led me to question the idea of where we added value to our raw material. I regard the grit product as the most profitable of our products, with margins twice that of normal stone products. It is clear that competing in bulk commodities where we are not the lowest cost producer is not a route to success for our company.

The collaboration was beneficial in terms of differing perspectives in developing the product and organising the logistics of delivery. Ultimately, the cost of drying was prohibitive and led us to consider production methods that eliminated this step. I consider that had I not engaged in the production trials, I may have gone down the traditional route. This would have entailed a much higher capital investment and sent us into the full industrial limestone market where we would have had a full suite of products in a variety of different industries. This aspect of open innovation proved extremely valuable as it saved us from investing heavily in a new industry. Instead, by entering at the lower end of the sector, we have the opportunity to study the market for other sectors and products we can produce using the same disruptive tactic.

I spoke to the drying partner about his experience of the project. He viewed it as a learning experience on all sides. His interest in the project was in learning the thermal behaviour of stone. He used the facility to dry a variety of products, including grain from his own farm and bark from a nearby timber factory which was reused as boiler fuel once dried. From his perspective, stone was another product to be dried. He enjoyed experimenting with different settings for his drying equipment. Given the cost per tonne to dry the raw material, he was not surprised that the experiment would not be continued into full production. I have previously stated that he was surprised at

the lack of value added to stone by drying- in the other products he dried, value added from drying was more significant.

I recorded this in my Reflective Journal at the time:
"It is instructive the extent to which our partner fees that we do not appreciate the value inherent in our products. Even though he purchases a considerable quantity of construction materials for his own business, he is surprised at the lack of value added. Our concern is on value to the customer but this shows that other attributes should receive greater prominence. Our reserves are finite and to date we have not focused on maximising the value of them. The grit project is an attempt to launch a low volume, high margin product, aimed at a new market."

Furthermore, I learned from working with this partner about the basic design and layout of a store, which I used in designing our own production facility. We were able to share ideas about storage and processing. The basic processes in handling grain and stone turned out to be quite similar. Whereas I learned about drying, he learned about logistics and I was of assistance in the electrical design of a new processing plant he was installing. This process of open innovation benefited both businesses. Given that our products were not competing, neither was disadvantaged by sharing knowledge.

The idea of collaboration adding value as part of the process of open innovation is highlighted by Chesbrough (2004). This approach recognises the benefits of innovation outside the bounds of an individual company. Although rooted in the IT sector, this concept has value in other sectors as demonstrated by this case. I was able to access outside expertise in a non-threatening environment through dealing with a non-competitor and this benefited both our businesses. I would previously have been

reluctant to embrace the sharing of knowledge regarding production processes. Having seen the benefits, this is no longer the case.

Exploring Business Assumptions

This experience has also prompted me to seek to question the traditional approach prevalent in the quarry industry. Instead of the largely adversarial model common in our industry, in this project I operated a partnership approach with our customer to firstly specify the product and then adopt a target cost approach to the production process. I also sought to question the assumption that a large, capital intensive production plant was necessary for this type of product. By questioning the established theory of the business, I was assessing its validity in a new market context and hence, establishing my own theory of the business. In doing so, I may inadvertently upset the established business models of other players in this niche of the industry. The approach of questioning business assumptions led me to the selected production process. The traditional approach in the industrial limestone market is to invest in a large integrated drying and classification plant where multiple products are produced. The idea of specialising in one aspect of it is new to the market. It means that we are not burdened with large overhead. We extract fertiliser grit from a low value quarry dust and use the remainder in our block production. This means that there is no waste from the process.

Innovation and Disruption

The modern focus on open innovation (Chesbrough, 2004) finds expression in this case. Open innovation involves sharing of ideas from external sources. This is evident in the use of concepts from the grain and recycling industries. The old concept of closed innovation is a product of the Industrial Age, where copying innovations was

the nature of competition in a particular market. There is a feeling of losing control of the process to one like me who is accustomed to a closed system. By sharing production methods with our customer and also with our drying partner, there was the risk that they might disseminate them elsewhere or use the information learned in other ways. By establishing trust on all sides, we were able to exchange ideas and this collaboration greatly improved the finished product. The openness to external ideas is a characteristic of the open innovation process. I found the cross pollination of ideas from the grain and recycling industries gave new insights on material handling and processing and allowed me to question the established business model of the industrial limestone industry. However, it is critical that there is value capture for our company from this open innovation (Chesborough & Appleyard, 2007). An important implication for my mainstream business is that there may be nascent threats to our industry from outside the industry from the emergence of disruptive innovation from non-traditional sources, as outlined by Christensen (1997).

The theme of disruptive innovation runs through this case. Christensen (1997) conceived disruptive innovation as market entry from the lower end of the market, a process that may gradually move upmarket, eroding the market share of incumbents. In our case, by focusing on one of the lower end products in the industrial lime market and designing a dry screening process we have become a disrupted in this market. That is because at present, other competitors have large integrated plants that produce a variety of products. However, our attempts to be disruptive in terms of using alternative drying methods failed but it did act as a spur to experimenting with dry screening. The disruption I initially envisaged did not materialise bur instead manifested itself in a new screening process. Our simple plant has significant cost advantages as it does not require drying and grinding capacity, both of which

significantly increase capital and operating costs. The history of entry into the concrete market has been at the lower value end but using a similar process- we have entered the industrial market through a different process. My prior experience in the mainstream quarry industry was that new products or innovations were quickly copied by competitors- what can be considered sustaining innovations or improvements in operational efficiency. Hamel (2007) identifies the drag of old mental models of managers as being barriers to innovation. This theme is also present in Drucker (1994), who highlights the danger of executives assuming that their business models are immortal. The experience of this project shows how management innovation, i.e. the adaptive change process, leads to innovations at the lower levels of products and operations. This is consistent with the findings of Kegan (1994), who asserts that executives require higher order mental capacity to be effective in a modern environment.

This openness to experimentation represents a new aspect in my management practice. I believe that the adaptive change process I undertook was instrumental in allowing me to question the assumptions of the business model underlying the industrial lime market. Whereas the accepted wisdom was that stone needed to be dried to meet specifications, the acquisition of the Bivitec screen meant that this intermediate step was not required. There was no conscious attempt by us to engage in disruptive innovation. Instead it was simply a desire to produce a single product to customer specifications that led us to the process chosen. This entry at the lower end is indicative of the pattern of disruptive innovation identified by Christensen. It remains to be seen the extent to which our process will penetrate the market. Commentators such as Markides (2006) have outlined that some disruptive innovations fail to penetrate the mainstream and remain at the bottom end of the

market. Screening technologies and applications continue to improve, so further product innovation using similar methods is possible.

The other aspect of change is that having a more strategic viewpoint allowed me to allocate significant amounts of my time to this project, including several study trips to machinery suppliers and quarries. By being released from my Big Assumption, I was able to generate benefit from construing my role differently. I viewed that leading this diversification project was a more important priority than being visible in operational areas of the quarry. I felt confident being able to inform staff that I would be devoting considerable time to this project without being held by the assumption that I had to devote considerable time to operational issues. The development of new products and markets aligns better with my executive role within the company.

Theoretical Lens

I firstly consider the outcome through the lens of the Porter approach which is the primary focus of this work and then move to consider other approaches. By seeing the opportunity to produce fertiliser filler grit in terms of managing the impacts of Porter's Five Forces, I assessed the value of the opportunity differently than heretofore and was motivated to pursue it. Being released from my assumptions regarding my role meant that I was able to take ownership of my work and was confident in my role definition, enabling me to devote considerable time to the development of this product. Previously, I would have been too preoccupied with these to give this new product sufficient attention. Using the criteria of Petrie (2014), a set of experiences gained during these experiments satisfy the requirements for vertical development:

- Heat experiences- embarking on designing a product of which I had no previous knowledge;
- Colliding perspectives- engaging and becoming familiar with the viewpoints of the customer and my drying partner and subjecting them to consideration using my Theory of Business;
- Elevated sensemaking- reflection on the experiences, particularly using the Porter (1980) framework as a lens to see the industry and its markets differently.

My focus on the competitive forces has now led me on a further step to embed our company in the fertiliser market and make it more difficult for a competitor to dislodge us or for the customer to remove business from us. I was aware from discussions with our customer that repeated handling of the grit during their production process generated high levels of dust, due to attrition of grit particles. They mentioned that a sister company of theirs in the animal feed industry used a derivative of sugar cane to coat pellets of animal feed to prevent dust arising during transport. We discussed the possibility of a similar coating to grit pellets. There would be a cost saving and efficiency benefit to the customer in having a dust free product. I undertook to commence trials on this with a view to providing such a product for the 2017/18 season. To my knowledge, this has not previously been done in the quarry industry. To date, I have conducted laboratory trials which hold considerable promise. The next stage is to run full production trials. If successful, it would provide a unique product within the industry and would develop this niche for us. I see opportunities to supply other fertiliser customers and see applications in related industries.

Alternative Theoretical Lens

Having previously examined the grit project through the lens of managing competitive forces, I also examine it through several different perspectives, namely disruptive innovation, collaboration, value net and Blue Ocean strategy. I have considered disruption and collaborative co-operation in previous sections.

However, the chosen method of entering the industry would have been moot had the Porter analysis not pointed us in the direction of producing a niche product. This provided a strategic direction and identified the actions required. Furthermore, it was only be engaging in the process of adaptive change that I was able to adopt the strategic focus that allowed this type of thinking to flourish.

Blue Ocean Perspective

By examining this case through the lens of Blue Ocean strategy, it can be seen the extent to which the fertiliser grit market constitutes an uncontested market space. The whole point of Blue Ocean strategy is to remove the company from a contested market space- an enhancement of Porter's market positioning approach. The grit product was beyond the processing capability of conventional quarry equipment but was essentially a by product of the industrial lime industry. Therefore, we are able to establish a position in the market with little friction or competitive retaliation from competitors. Whereas Kim & Mauborgne (2005) refer to the four actions to create uncontested market space, I arrived at this destination through seeking a position where competitive forces were lesser. The new market is a refinement of markets where we compete but has unique characteristics that allow it to be classified as

uncontested. Again, seeking this position was enabled by undergoing the adaptive change in my meaning system.

Value Net

The realisation that value is created throughout the supply chain is a key contribution of the concept of value net (Parolini,1999). In this case, the production of dry screened grit adds value to the fertiliser as it allows the manufacturer to vary his blends without compromising the active ingredients. This is why he is willing to pay a premium for this product. It is also essential to his security of supply to have a dedicated facility with good logistics available. Taking what Pedler et al (2007) describes as a helicopter view of the supply chain, I can see the value our product contributes to the finished fertiliser product. This allows a more nuanced approach to pricing, where account can be taken of the value added by our product.

Overall Outcome

The outcome from this case can be seen on both the business project and action research project perspective (Coghlan & Brannick, 2014). From a business perspective, the output was the development of a new product for our company, which has recently been launched. I will seek to develop sales and markets from this product in 2018 when the new production facility is commissioned.

As an action research project, this provided me with a means of testing the effectiveness of my new management practice. Although I viewed this as a research project, from the perspective of my drying partner, this was a series of product trials to enhance his understanding of the capabilities of his drying equipment. Although, I initially initiated the project on foot of a customer enquiry, I became involved in a

collaborative process with both our drying partner and customer. This shift in my practice was facilitated by the adaptive change process documented in the previous section. Not being in full control of the product development process was unimaginable under my previous meaning system. I would not have previously been interested in collaboration and new product development.

As well as testing my new practice, I learned the benefits of collaboration and the new insights obtainable from the cross-pollination of ideas from related industries. Both on a technical and management level, I broadened my expertise by working in these partnerships. This was a new departure and in addition to enhancing this project may be of assistance in future projects within our company. It provides a template for future enhancements to our product portfolio. This focus on partnerships and collaboration has wider implications for practitioners in the SME sector, which are explored in the Portfolio Conclusion.

4.5.2 Re-imagining Existing Products: Thermal blocks

The experience of developing a new niche product led me to reflect on missed or poorly executed opportunities. One example was a previous launch of a thermally efficient block in 2012. Revisions to Irish building regulations had resulted in a focus on the thermal efficiency of buildings. One implication was that block walls had to be constructed in a manner that minimised heat loss. This required the use of a thermal block at key junctions in a wall, e.g. where the block wall intersects with the floor of the building. I had sourced the appropriate raw material and successfully manufactured a thermal block in 2012. Most other block manufacturers launched similar products around this period.

The move to greater thermal efficiency has seen the emergence of the timber framed house as a substitute to the concrete block as a walling system due to a belief that it was a more energy efficient building system. In addition, the timber framed industry was able to provide designers and users with thermal drawings to prove the energy efficiency of a house.[22] I had to see the launch of a thermal block in terms of a response to the threat posed by substitute products.

I realised that I had not understood the change in terms of the broader market, nor the rationale for producing a new type of block. Whereas I had focused on the production of the block, this was not the primary issue. My assumptions regarding the block market had become obsolete given changes in building regulations. The market was now concentrating on the performance of the product and the focus was on the entire wall rather than the individual components. In order for the concrete block to address the threat of substitute products, a manufacturer had to *prove* the performance of the product. This represented a change in accepted assumptions regarding the use of the product.

This changed environment occasioned in me an awakening to the threat posed by substitute products which were more advanced in their response to the changes. The immediate implication was that we would have to commission detailed thermal studies on the performance of our thermal block and produce detailing[23] indicating the proper use and placement of the block. We had ignored the requirements of the

[22] Calculations of the energy efficiency of a building, known as Building Energy Rating, are required under Irish Building Regulations since 2007, prior to sign off on a new building.

[23] Detailing is a construction term for drawings showing how a product is to be used in the construction process in order to comply with Building Regulations.

building designer to design a thermally efficient building and how performance details of our product were required Failure to produce those was exposing us to our blocks not being specified on a project. The risk was of a substitute product being specified or else a timber framed building being designed. Porter (1980) notes the importance of tracking trends in substitute products and understanding the implications of these trends. Obsolescence was a particular threat. The work of Drucker emphasises the risk that an entire industry can be undermined by the emergence of substitutes (Drucker, 1974, 1985).

I realised that in order to protect our block market, I had to make the designer's job more straightforward by providing him with easily understood detail drawings and performance information. Our competitors in the timber frame industry had adopted this approach and this had allowed them to gain traction in the construction industry. Even though accurate statistics are not available, my personal experience is that timber frame is gaining increasing market share in housing developments. Whereas only 3-5% of the blocks in a building will be the thermal type, failing to have regard to the wider thermal efficiency of the building can potentially lead to the demise of blocks in the entire structure. I believe that this implication is still not widely understood within our industry and has received little attention to date within the construction industry.

I contracted an architectural practice with experience in this area to produce the necessary performance and detailing information in a format suitable for incorporating into calculations for energy efficiency of entire buildings. I consider this as an attempt to manage the threat of substitute products taking hold in the local block market. The adoption of a more strategic approach allowed me to become aware of

this threat and to consider the use of our products in a more holistic sense. It is no longer enough just to manufacture a block- it is only a component of a wall and the thrust of building regulations is to consider the performance of the entire wall rather than individual components. I was able to see this in terms of the end use and ultimate customer needs rather than at a production or operational level. I now have an awareness of the performance requirements of the customer, even though he may not be aware of them himself, particularly in the case of an SME builder. Even though the customer may not be directly looking for this detail, I realise that they will need it at some stage. By us being aware and in a position to educate the customer, we can position ourselves to deal with the threat posed, differentiate our product and lead to an increased focus on performance rather than on price. It will also benefit our business by removing the need for our customers to purchase any of their block requirements from our competitors.

4.5.3 Changing the Approach to Large Contracts

My industry analysis led me to focus on the SME and commercial sectors in our industry. The decision to focus our operations in this segment had a number of implications for the way that I managed the business and how our operations were conducted. In particular, the value chain of the company had to be organised to ensure consistency with the strategy adopted.

An immediate impact was on our pricing strategy on major concrete contracts. My earlier analysis of the concrete industry had indicated to me that we had no competitive advantage in this area. Previously, we would have put significant resources into a bid for the contract, but we now changed our approach, either

withdrawing from bidding or submitting a generic standard proposal. Instead we contacted the likely winning bidder and offered our services as a backup facility. It is a condition of supplying large contracts that the concrete supplier has an alternative production facility available to assist on large pours of concrete in case of breakdown. We offer our facility on the basis that we would be contracted by the larger supplier to supply a fixed percentage of the concrete for the contract. We believe that this makes strategic sense as it acts as a signalling device to our competitors (Porter, 1985) in the sense that it indicates that our focus is on the SME segment and not on competing for large civil engineering projects. It is a commercially attractive to our competitors who did not have a second concrete plant in the area as they would not have to establish a temporary production facility for the duration of the contract. One of the implications of our strategy for our value chain is to have spare logistics capacity to cope with seasonal surges and this approach was a means of deriving value from this capacity. Another consideration relevant to the stability of the market was that this approach would address the risk of our larger competitors permanently locating extra delivery capacity in our area to service large contracts. This extra capacity could prompt renewed price competition in the SME market when these contracts conclude. I considered that it would be more advantageous for us in the long term to temporarily provide capacity to the larger players.

The first test of this strategy occurred when a large wind farm contract arose in our local area in early 2015. From our initial enquiries, we discovered that one of the national players had agreed a contract price for this and several other similar contracts around the country. They did not have a back up facility in our area within an economical or practical transport distance. We were thus able to negotiate an arrangement in which we supplied 50% of the contract as a sub-supplier to the major

supplier, who provided all technical services to the contract and assumed all credit risk. The arrangement worked well, as we were in a position to continue supplying to our regular customers but yet our production received a boost at an attractive margin. The national players can see the benefits in that it allows them to service large contracts with less disruption to their delivery fleets. Subsequently during 2016 the major supplier has been awarded three similar contracts and has offered us the same arrangement for each one.

Signalling such as this is seen by Porter (1985) as a mechanism to manage competitive rivalry. When a company has a clearly defined strategy and makes this evident to competitors, it acts as a signalling device. It can be a tactic to turn "bad" competitors into "good" (Porter, 1985, p.220). In addition, in particular circumstances, this competitor is now one of our largest customers, which has inevitably led to a change in the overall relationship between the parties as the factors underlying these competitive forces are different.

From the perspective of managing our business, this approach facilitated a closer focus on the segments in which we identified a competitive advantage. Reflection on the local market conditions indicates that large projects in the geographical area will continue to be rare. Where they do arise, price competition is likely to be intense by virtue of buyer power and competitive rivalry. The smaller ongoing projects undertaken by our SME customers are a constant feature. By properly orienting our offering to the needs of this segment of customer base, we can derive superior financial performance.

A relevant entry from my Reflective Journal is:

"The fact that high transport costs limit our area of operations can be worked to our advantage. Our position and emphasis on local involvement positions us differently in the local environment. We can derive a competitive advantage from being local. We have a unique position in our local ecosystem in that we are immersed in our local community to an extent to which our competitors are not. This position allows us to be continually aware of developments and decide on our approach. To an extent, this gives us first mover advantage in the local SME market which leaves us in a strong competitive position in this segment. Essentially, our customer value proposition is our local nature and personalised level of service. We can take decisions at local level and resolve issues quickly. Our industry is intensely competitive and many advantages get competed away but this immersion in the local environment is an advantage not easily replicated. It can form the centrepiece of our positioning strategy".

My experiences in developing the grit product have led me to look beyond the pricing issue as key to customer retention. By operating with a broader perspective and seeing both our place and the customer's in the construction value chain, I can see our value proposition to these customers. This awareness of and communication of our customer value proposition is a key attribute of our positioning strategy (Payne et al, 2017). This clearer focus on the target market allows for a tailoring of our offering. A focus on service and responsiveness is of a greater significance than a narrow concentration on price. A further implication, which I am developing, is putting SME customers in contact with one another where they have complementary skills which can be utilised on a particular project. I have realised that our company has a wider knowledge of the capabilities present in the local market than many of our customers

and that we can perform a useful service to our customers by matching this knowledge with the requirements of particular customers.

Viewing this change in strategic focus through the lens of Porter implies managing both the power of buyers and competitive forces. By elevating service levels to the SME sector above those of larger competitors, we raise the switching costs to buyers. This removes the aspect of product price as a primary driver of competition. In addition, customers moving to competitors would lose access to the knowledge and contact base we can provide. I previously placed no particular value on this knowledge. By applying the industry analysis, I can see its value to the SME customer base. It can be seen that by raising certain factors while eliminating others that we have applied many of the principles of Blue Ocean strategy (Kim & Mauborgne, 2007)

4.6 Reflections on Changed Management Practice

The forgoing has documented the results of the testing that I have conducted on adaptive changes to my management practice. I have adopted an action research approach to this testing, the steps of which are outlined in each example. The entire process has been one of vertical development (Petrie, 2014).

4.6.1 Change in Practice

The impact of the adaptive change process has been to release management services that now are available for more strategic and innovative activities. This has led to a focus on more productive opportunities. Coupled with this, applying positioning

strategy has encouraged me "to think structurally about competition" (Porter, 2008, p.15). I had previously only considered competition narrowly, focused on the immediate challenges, particularly reacting to competitor actions. This wider lens has led me to concentrate on maximising the productive opportunities available to me. Being aware of the different lenses of critical reflection (Brookfield, 1995) was of assistance in reflecting upon and evaluating the projects.

The outcome has been the development of a new Theory of Family Business (Drucker, 1994). This new theory revolves around re-imagining of my role as creating an environment where staff has adequate resources to perform their roles effectively. It has led to a more strategic viewpoint, viewing the market using the five forces framework (Porter, 1980). This has allowed me to view changes in the market and in the behaviour of suppliers, customers and competitors at the level of relative movement in the strengths of the competitive forces. Awareness of these movements is an important part of ensuring that the assumptions on which the business is built continue to remain relevant. This movement between the abstract and specific ideas is described by Pedler et al. (2007) as exhibiting the helicopter mind, which they see as a key determinant of managerial success. It also reflects the 'zooming out' emphasis of Nicolini (1999) in seeking out generalities from the specific.

Through the selected readings in Essay Two, I could see the extent to which being a successor in a family business framed my theory of business (Drucker,1994). The assumptions to which I was subject originated in this family business background. Having used the Immunity to Change process to release myself from these assumptions, I was enabled to develop the business through a new product line and to move beyond activities traditionally pursued. The adaptive change process spurred an

interest in innovation and collaboration that had not previously been pursued and which added to business success.

I now see my role as a successor in creating a business which has the resilience to manage the competitive forces prevailing in the industry. I do not see the shift in strategic focus as betraying the legacy of my father but as a logical reaction to the movement in the competitive forces. It is this realisation that perpetuating the business does not automatically imply the perpetuation of management practices that represents a fundamental shift in my mental capacity. By moving from a socialised meaning system, with its attendant need for external validation, to a self-authored one, where I am "the master of [my] own work" (Kegan, 1994, p.178), I have the self-confidence to make my role my own.

It is notable that the family business agenda, much in evidence in Essay One, has largely disappeared from my management practice by the conclusion of this narrative, replaced by a strategic focus on business issues. When faced with options for succession in the future, it may well become more central again

4.6.2 Impact on Personal Effectiveness

A central theme in the work of Drucker is that efficiency is doing things right whereas effectiveness involves doing the right things. As set out in the Portfolio introduction, the overall objective is to enhance the effectiveness of my professional practice. In a seminal work, Drucker (1967) argued that executive effectiveness was essential to:

- Executive self-development and

- Organisational development.

I have used these as part of the developmental goals set out at the conclusion of my Professional Development Review. I believe that only by developing my own capabilities can I drive development in my organisation. Drucker (1967) believes that effectiveness is the basic task of any executive- that it converts underlying knowledge, intelligence and imagination into results. I have come to see effectiveness in my role as providing strategic direction and directing efforts towards the attainment of these strategic goals.

In terms of changes to my meaning making, the main shift has been a move from an operational to a strategic perspective in considering business performance. I evaluate its effectiveness in terms of changes in my management practice and outcomes for our business. I can see the main outcomes as:

- Development of a management style which is more open to delegation and seeing my role as one of setting the agenda;
- Becoming released from the assumptions regarding my role expectations emanating from my position as successor to the founder of a family business;
- Developing a more strategic perspective in relation to my management of our business.

In effect, by moving succession issues from subject to object (Kegan, 1994), I was able to adopt a broader perspective and transform my management practice. Succession is no longer an issue with which I must deal. It has been replaced by strategic issues which I believe are more appropriate to my role as MD and which allow me to develop my business.

In assessing the effectiveness of the revised strategy for the business in terms of the criteria of Magretta (2012), I identify the following results:

- I have segmented the market in which we operate and have oriented our resources towards those segments in which we possess a competitive advantage;
- I have launched a partnership with larger competitors to take advantage of local large projects without being exposed to credit or performance risk. These were the segments of the industry in which analysis revealed that we had no competitive advantage and indeed were at a competitive disadvantage;
- I now have a focus on new products and niche product areas where competitive forces are less intense.

One of the evaluation criteria that I set myself was to ensure that the changes improved the financial performance of our company. I consider the impact as having been positive for the results of our company. In terms of financial returns, margins in 2016 rose to 11.5% from a 2014 margin of 6% on a broadly similar turnover. I would expect that margins in 2017 would show further improvement given that some of the changes implemented are still in the early stages and are expected to come to fruition in the coming years. By embedding our strategy into our value chain of activities and by embedding our business in the local SME construction sector, we will make it extremely difficult for another company to successfully imitate our strategy.

Another of the criteria was to improve my professional effectiveness. This is evident in a greater focus on my leadership expectations of my position. The adoption of a strategic perspective offers me a broad framework to analyse developments in the industry and market. It allows me to anticipate changes by considering the changing

dynamics of the five competitive forces. Whereas I maintain a quantitative emphasis in my management style, as would be expected by my professional training, this now is focused on the areas of the business that I have identified as being critical to overall success. I realise now the extent to which my previous meaning system had distracted me from the strategic issues relevant to our business.

Kegan (1994) observes that the most fundamental shift in meaning making is the shift from a lower level of consciousness to a higher one. I believe that by addressing my Big Assumption through the Immunity to Change process, I have been released from its restrictions. I can now see my management style exhibiting many of the features of fourth order meaning making. It is useful at this juncture to review my current management practice in the light of Kegan's (1994, p.153) expectations of the modern workplace:

- To own our work and be masters of our roles;
- To be guided by our own visions at work;
- To take responsibility for what happens to us at work.

This effectively calls for a strategic perspective to my role as MD -one where I take responsibility for agenda setting and being proactive in dealing with the operating environment. This is demonstrated by the focus on chosen customer segments and the development of niche products so as to operate where the company has a competitive advantage. I believe that having the confidence to make trade-offs, which Porter (1980) observes as essential to strategy, evidenced by my new approach to large contracts is indicative of meaning making operating at the self-authored level. Whereas previously, I took the external environment conditions as a given under my previous Theory of Business (Drucker, 1994), I now assume responsibility for the

direction and performance of the company. The link between this increased complexity of meaning making and greater levels of effectiveness is in line with the observations of Berger & Fitzgearld (2002).

The adaptive change process has led to a shift from the operational to the strategic. The three major strategic shifts evident in my practice can be summarised as:

- Engaging in research and development to increase operational efficiency in the use of resources.
- Collaboration with partners in the launch of a new product compatible with a niche product focus.
- Tailoring our sales effort to focus on a particular customer segment.

As well as legally self-employed, I now consider myself psychologically "self-employed" (Kegan, 1994, p.137). I feel confident that I focus on those issues necessary for business effectiveness. This reflects Drucker's contention that effectiveness is a learned skill and is indeed the basic prerequisite of an executive.

Conclusion

5.1 Summary of Findings

This Portfolio has demonstrated my transformation from a practitioner operating with an operational mindset to one with a strategic perspective. My research is practice-based and by drawing from my professional experiences, I have illustrated the before and after of my practice. I consider that the practice-based terminology used in this Portfolio is appropriate as the primary audience to which this work is aimed is a practitioner one. Ultimately, this Portfolio concerns the transformation in my management practice. In this section, I explore the wider implications of my work for the audiences previously identified (Section 1.2).

The central research question being addressed is whether by undertaking a process of adaptive change, can improve the effectiveness of management practice. Throughout this Portfolio I have dealt adaptively with the issues of succession and strategic positioning.

The explorations in my Professional Development Review served to surface the assumptions and theories to which I am subject. In most cases, I was unaware of their existence but by using the subject-object theory of Kegan (1994), it was possible to bring them to the surface. My early personal, sporting and professional experiences served as socialising influences on my meaning making, in line with the Adult Mental Development theory of Kegan (1994). Significant elements of my management practice were developed during this period.

Interrogation of these practices using the Immunity to Change framework (Kegan & Lahey, 2009) highlights the extent to which they are rooted in my background as the

successor to a family business. The limitations of these practices and the obsolescence of the underlying assumptions became evident in my response to the dramatic change in my industry environment caused by the 2009 construction industry recession. My developmental goals for the remainder of this Portfolio emerged from these explorations.

In Essay Two, I engage with source thinkers in the developmental areas identified. I explore the aspect of fear which has dominated the succession narrative and has been a constant but heretofore unidentified aspect of my management practice. I explore the successor experience in the literature and realise that the issues of gaining legitimacy and credibility are intrinsic aspects of succession. My developmental experience is in recognising and dealing with this using the Kegan & Lahey (2009) Immunity to Change framework as a means of engaging in adaptive change.

I next turn my explorations towards the business environment in which I operate. I consider the role of assumptions and the classification of assumptions using the framework of Brookfield (1995). I discuss the role of assumptions and mental models driving business models. I discover that my assumptions have become obsolete and no longer form a basis for setting the direction of the business. I explore the role of assumptions in business. This awakens an awareness of the assumptions underlying my management practice and the need to constantly question the validity of assumptions underlying the business. It was instructive to explore how the assumption of buoyant market conditions left our company scrambling for survival once the 2009 recession emphatically exposed its fallacy. I extend Drucker's (1994) Theory of Business approach by adding assumptions about family dynamics to introduce the Theory of Family Business, which I develop as the basis for my practice.

The outcome from the explorations of the role of assumptions in business underpins my review of strategy. I discuss the idea of strategic positioning and introduce the seminal work of Porter in this area. I put Porter's work in context, with reference to subsequent developments in strategy such as disruptive innovation, Blue Ocean and co-creation to develop a conceptual framework. Having used Porter as the foundation of my conceptual framework, I adopt elements of disruptive innovation, customer value proposition, co-creation and Blue Ocean to execute the action research projects in Essay Three. Having considered the appropriate strategy model to deploy for the purposes of this work, I conclude that the Porter Five Forces model (1980,1985) is most useful for my purposes. After conducting an industry analysis (Appendix 2), I use the outcome to review the positioning of our company. Having used Porter to establish a starting point and overall direction, I was in a position to execute projects involving research and development, collaboration and co-creation. These outcomes were not foreseeable at the outset of the programme. Using the Porter Five Forces model to deepen my understanding of the operating environment in which I operate reveals the lack of competitive advantage our company enjoys in certain market segments and the need to develop niche products and market segments where a competitive advantage, and hence superior profitability, can be obtained.

The explorations have served to enhance the complexity of my meaning making. I compare the old and new meaning making systems in terms of the management practice engendered. To summarise, the main shift is from a primarily operational to strategic perspective and the resultant management practice reflects this movement.

I have previously set the overall Portfolio objective as enhancing the effectiveness of my management practice. I use the Transforming Practice Essay to demonstrate the adaptive changes in operation. I describe how by using the Immunity to Change

framework as a vertical development process, I overcame the Big Assumption that was hindering my professional effectiveness. The explorations and the Immunity to Change process served to remove succession as an issue for me and allowed me to put aside these self-inflicted pressures. The ensuing release of managerial services allowed me to identify and focus on business development projects. The explorations and the vertical development process served to remove succession as an issue impacting upon my management practice. It has allowed me to deal with these self-imposed pressures. This Portfolio which in early drafts focused on succession and family business matters is now focused on strategy and innovation.

I discuss projects involving making more effective use of resources, launching a new niche product, re-imagining an existing product and a change in customer focus as demonstrations of the effectiveness of this transformed practice. I link the work undertaken to the relevant literature in these areas.

Many studies have indicated a link between professional effectiveness and enhanced mental complexity (Baxter-Magdola & King, 2007; Berger, 2004; Kegan & Lahey, 2016). My work adds further confirmation to this link. I believe that this more advanced mental capacity allowed me to recognise the assumptions on which my business practice depended and allowed me to renew these assumptions so as to be consistent with the prevailing operating environment. The development of a self-authored meaning making system allowed me to adopt the primary lesson of Porter-that strategy involves trade-offs and that it is important to maintain consistency of strategy by declining opportunities at odds with the chosen strategy.

5.2 General Implications for Practitioners

To make a contribution to knowledge my work needs application beyond my own experience (Coghlan, 2007). He distinguishes between the organisational and thesis action research project, where the thesis project develops theory through "inquiry in action on the core action research project within the researcher's own organisation" (p. 301). In other words, the outcome of the project on my own organisation is less important than my reflection on the various cycles and the generation of actionable knowledge emanating from this. I believe that by sharing my experiences and my reflections on them, I have provided guidance for practitioners working in a family business or SME environment. This resonates with the 'zooming out' lens of Nicolini (1999) and the focus of Kemmis (2014) in seeing the contribution to practice in not only the doings and sayings of the individual projects but on drawing out the relatings, i.e. the wider implications and how these relate to literature in the areas studied.

It is common in the business press to read calls for managers to become more strategic in outlook. I have illustrated the extent to which I believe that this is a fourth order mental demand. Given the research of Kegan and his associates, it is quite likely that there may be a resultant mismatch between these demands and the mental capacity of executives (Kegan & Lahey, 2009). I believe that this implication is not widely understood. It may be the case that as the level of mental complexity required in managerial roles is increasing (Kegan, 1994), that there is a lack of understanding of how this can be developed in practitioners. In particular, questions can validly be raised as to whether this area is addressed in management education and development programmes. Ignoring the need for transformational learning while emphasising technical skills may not be an effective policy in management education.

This Portfolio demonstrated the effectiveness of a process of adaptive change in increasing the level of mental capacity. I have demonstrated the impact of adaptive change on what could be seen as the technical process of strategic positioning. Despite being educated to Masters level and having professional qualifications, I had never been exposed to theories of mental development. By transforming myself, I have been able to adopt a strategic focus and apply this to my management practice. An implication of this is that management education requires a focus on transformation and the development of adaptive change in order to prepare managers for the demand of a modern workplace.

Adopting the 'zooming out' lens of Nicolini (1999), a wider implication is the need to continually question business assumptions. The work of Drucker and Christensen, among others, draws attention to the dangers of disruption from outdated assumptions and conventional wisdom. My work has shown the impact of being aware of and not constrained by industry assumptions. The adaptive change fostered an interest in innovation and this inspired many of the change projects. It draws attention to the importance of an innovative mindset. A common refrain in business media is the need for innovation in SMEs. My work demonstrates the extent that a willingness to question accepted wisdom and abandon long held assumptions is a necessary pre-condition for this. Innovation is not a decision but rather a mindset. My work has demonstrated several approaches to innovation. It can be seen that many of the barriers to innovation are internal and relate to the influence of previously held mental models. I have shown the benefits of collaboration and co-creation in new product development. This requires a willingness to lose a degree of control and may be a challenge to the entrepreneurial mindset.

5.2.1 Implications for Concrete and Quarry Industry Practitioners

The central message to practitioners in my industry, or those facing similar competitive forces, is that the family owned firm faces several fundamental challenges as the construction market recovers. The industry had become accustomed to a sustained period of volume growth from 1995 to 2008 and was unprepared for the calamitous collapse of the construction industry post 2009. The industry had traded on volume, which disguised poor margins. The subsequent volume drop, coupled with the outbreak of significant competitive rivalry accompanied by aggressive price discounting has undermined the profitability of the entire industry. Low levels of profitability in the industry over the last number of years have damaged the ability to modernise equipment. On a more fundamental level, I believe that an analysis of the competitive forces for any equivalent company to ours would indicate a similarly poor competitive position. Industry profitability and return on equity caused by the interaction of the five competitive forces is poor and a cause for concern. I believe that for a firm similar to ours to thrive, a strategy based on market segmentation and a focus on niche products where a firm may mitigate the competitive forces is the pathway to success.

The concrete and quarry products market is characterised by strong competitive rivalry. This has been destructive to profitability, particularly recently where muted demand has exacerbated the problems of low pricing. Our industry is capital-intensive and requires sufficient margins to re-invest in plant, equipment and quarry reserves.

The current level of profitability indicated by my industry analysis (see Appendices 2 and 3) is insufficient to provide for these replacement costs. I view the focus on volume perplexing as it almost inevitably comes at the expense of margin. My analysis has demonstrated the lack of competitive advantage for the SME in competing for major contracts, yet in many firms similar to ours, this volume strategy is pursued. A differentiation focus strategy, concentrating on those customer segments where competitive advantage and ultimately superior returns are obtainable will yield the greatest long term rewards.

The fallacy of chasing volume rather than margin was exposed by the recession and I believe that an SME company in our industry should discount this approach. The lack of margin and the ensuing vulnerability of the company are evident when market conditions are depressed. I view the possibility of achieving volumes similar to 2006-2008 as remote so that a strategy of pursuing volume growth at the expense of margins is extremely unlikely to produce acceptable returns. My strategic analysis illustrates that the most valuable asset a SME producer in our industry possesses is their local knowledge, networks and relationships and that this should be at the heart of a successful strategic positioning. I have shown the impact on our company of adopting such a strategy. In addition, my experience in niche product development has indicated that different markets value different attributes. Whereas price is a key factor in the construction market, it is considerably less of a factor in niche industrial markets. This suggests that a focus on selected niches can generate superior profitability (Porter, 2008). The other implication for this traditional industry is that there is much to be learned from open, collaborative approaches. Traditional adversarial relationships may be a factor in resisting collaboration. The new product development discussed in Section 4.5.1 highlights the benefits of collaboration. It may

be that an adaptive change in mindset is required to exploit opportunities in this fashion. Innovation must be seen as a viable option for companies in our industry. The open collaborative approaches to innovation which originated in the technology sector have been shown to be applicable in this traditional sector. The construction industry media highlight issues with labour and skills shortages (DKM, 2016). This indicates that opportunities may exist for innovative, collaborative solutions between different aspects of the supply chain.

5.2.2 Implications for Family Business Practitioners

In terms of practitioners who are successors in a family business, I believe that an understanding of the various elements of succession is essential to understanding the impact of succession on their management practice. I found that the role of successor inhibited the effectiveness of my management practice and had led to me being overly focused on operational issues. Only by releasing myself from the assumptions grounded in succession using an adaptive process was I able to adopt a more strategic perspective. The results of this can be seen in the pursuit of opportunities which previously would have been rejected or ignored. In addition, I believe in that an awareness of succession issues will allow me to plan more effectively for my own transition towards retirement. As less than 10% of businesses successfully transition to the third generation (Handler,1994), I consider this to have relevance to the family business sector in general. It points to the value of transformational learning in the preparation of family business successors.

The motivation of the successor to review the strategy of a firm is another key theme in succession literature (Chalus-Sauvannet, et al, 2016, Ward, 1987, Handler, 1992). A key outcome from my work is that a firm's Theory of Business can become obsolete and succession is an opportunity to evaluate the effectiveness of a firm's Theory of Business and hence strategy. These attempts to update strategy can generate resistance from incumbents, staff and customers. Failure to innovate can leave the firm vulnerable to disruption. The emergence of substitutes or disruption of the business model represents a real risk where the hegemonic assumptions of an industry are not questioned. The importance of innovation, if only the sustaining variety, provides an important defence against disruption.

I have shown the effectiveness of a process of adaptive change in addressing issues in my management practice arising from succession and believe that this has implications for this community of practitioners. There is a need to avoid the 'dead hand' of the past- succession can be an opportunity to evaluate existing business assumptions and embrace a new direction not constrained by theories of the past.

I echo the implications for general industry practitioners outlined earlier in this section. As I have demonstrated, it is quite possible to remain unaware of the obsolescence of a firm's Theory of Business and the invalidation of the assumptions underlying the business, particularly at a time of upheaval. Even though practitioners may be unaware of the theories and assumptions underlying their practice (Drucker, 1985), these assumptions guide the strategy of the firm. I have highlighted the importance of reviewing these assumptions once they have outlived their usefulness and have proposed the Theory of Family Business as a basis for formulating strategy.

My work has shown that the difficulties experienced by a successor are not apparent when deciding to return to the family business. Even though on an educational, training and experience basis I was well qualified, I was unprepared for the personal and cultural issues that developed. My experience is by no means unique. The experience of the successor is under-reported in the literature and I believe that this area merits further study. Dealing with issues of resistance, gaining credibility and managing family relationships need to be addressed as part of the preparation of a successor. This education gap has largely been ignored to date. Given the prevalence of the family business model, it is surely appropriate that it should receive further attention from educators and policy makers.

5.3.3 Implications for Trade Associations

I see my research and its outcomes as having implications for the operation of trade associations representing SME members in this and similar industries. The function of any trade association is to represent the interests of its members in its dealings with official bodies and to promote best practice among its members.

Our company is a founder member of the Irish Concrete Federation, which represents 90% of the concrete and quarry industry (Appendix 1 provides background information). I have been active in the trade association and see it as providing valuable services in terms of technical support and networking. A particular issue that arises in most such organisations is the information asymmetry between large and small members. Whereas the larger members have in-house expertise in professional services such as quality control, environmental management and health and safety,

SME members rely on the trade association to provide this expertise. This is also true of the areas researched in this Portfolio, in particular strategy and innovation. I see a role for trade associations in promoting the development of their members by educating the SME members in strategic development. Promoting awareness of the competitive forces active within their respective industries and the potential for disruption can perform a valuable role in assisting the members highlighting the threats in their competitive environment. This knowledge can be used by individual members to manage the competitive forces to their own advantage.

While it is illegal under competition law for trade associations to engage in price collusion, it is perfectly acceptable to draw awareness of members to the dangers of excessive competitive rivalry. Porter (1980) identifies price rivalry as the most destructive to profitability and it is surely incumbent on a member-focused trade association to highlight this to its members. The promotion and dissemination of sound and sustainable business practices is a legitimate aim of any trade association. This can be achieved by educating SME members, for instance by holding educational forums such as seminars or in-house training. I would contend that the prevalence of price competition in the concrete and quarry products industry is indicative of a lack of strategic awareness of the impact of competitive forces and a lack of knowledge of the destructive impact of price-based competition on profitability. This knowledge gap should be of concern to a trade association as education and training of members is a legitimate function of a trade association and would represent a valuable service to members. It would have particular benefit to SME members who lack in-house expertise. Promotion of the benefits of collaboration and other open innovation approaches in product development is another possible avenue of interest.

5.3.4 Implications for Policy Makers

While not the primary audience for this work, there are several implications for policy makers. I contend that an education gap exists among the SME sector as regards strategy and positioning in the marketplace. I view myself as a typical practitioner and the extent to which I was unaware of the theories and assumptions underlying my practice must have wider application. Vertical development initiatives have much to offer in terms of improving managerial effectiveness and hence a beneficial economic impact. There is need for management training and education not to solely technical in nature but to have a focus on transformational learning. In addition, management education should emphasise the need for awareness of the firm's business model assumptions and the need to constantly test these assumptions. This training should also emphasise industry analysis and the need for the SME sector to strategically position themselves in areas where they can develop competitive advantage. It is important for the development of the SME sector that firms develop strategic awareness.

The low level of successful transition from founders to successors (Handler, 1994) must be of concern to policy makers, given the prevalence of this business model. It may be appropriate to question whether sufficient political backing is given in this area, whether educational, taxation and industrial policies support the development of the family business sector. In my career to date, I have never seen evidence that promotion and development of the family business model is a priority for Irish industrial development policy. I believe that this is unfortunate as it is a model that has proved the bedrock of employment in this country, particularly in rural areas

(GEM, 2014) and the family owned business has much to offer in creating and maintaining sustainable rural employment.

My attempts to estimate the size of the industry and related segments have indicated the relative lack of data available on our industry. This is echoed in other areas of the construction industry[24]. Whereas I have highlighted the importance of the agricultural sector to the SME concrete producer and the rural construction industry in general, figures for farm investment are not available form a single source but must be estimated from a number of sources. I believe that accurate information as to the size and composition of our, and similar industries, would be beneficial for policy makers

5.3 Contribution to Research

I have adopted and applied accepted first-person action research methods throughout this Portfolio. The iterative action research cycles have been used to demonstrate transformation in management practice. This transformation is the "priority task" (Torbert et al, 2004, p.55) outlined in the Portfolio Introduction (p.7). I have demonstrated how action research can be seen as a mechanism for embedding knowledge in practice by means of self-development (McGrath & O'Toole, 2012). I have ensured validity in terms of the extent to which the outcomes developed actually solve the presented problem (Watkins, 1991). By following the criteria of Coghlan & Brannick (2014), I have addressed the threats to quality from conducting research in my own organisation.

[24] Recent media reports (April 2017) highlight issues with the reliability of house completion figures.

In Essay Two, I highlighted the extent to which first-person experiences of succession were poorly represented in research in this area. By grounding my work in the first person approach, this Portfolio addresses calls for research in the interpretive tradition (Fletcher et al, 2016; Leppaaho et al, 2016). I have taken an adaptive approach to succession and shown how this approach is of benefit when addressing the impact of succession on management practice. By focusing on personal development, I have shown how the development of the complexity of meaning making has enhanced my professional effectiveness, lending further empirical support to Kegan (1994) who believes that the demands of the modern work place demands a higher mental capacity than needed heretofore. By integrating the concept of vertical development (Petrie, 2014) with the Immunity to Change framework (Kegan & Lahey, 2009), I have demonstrated a practical means of accelerating personal development. This adds to Barbera et al (2015) who show the value of transformational learning in developing family business successors. It also lends support to Hamel (2007) in equating adaptive change with management innovation and demonstrating the impact of this.

I have also used an adaptive process to apply the framework of Porter (1980, 1985). This differs from the usual technical means of strategic analysis and positioning. I have shown, in my own case, the need for adaptive change in order to properly apply the implications of the Five Forces model. My work has demonstrated the continuing relevance of the Porter Five Forces model and how this approach is compatible with recent trends in strategic management. I have shown its applicability to the current market environment encountered by the Irish concrete and quarry products industry. It also raises questions as to whether the implementation of the resultant strategy requires management operating at the self-authoring level. My analysis has shown the extent to which the market is

segmented and the respective competitive of the various categories of players. In particular, I have demonstrated that SME operators, like my business, have a competitive advantage in the SME segment of the construction market and to obtain superior returns, should focus on this industry segment. I have also demonstrated how an awareness of trends in the competitive forces (see Section 3.5.6 on threat of substitution) is instrumental in keeping the five forces analysis relevant and highlighted the extent to which it is not static but changes according to developments in any of the forces. This combines Drucker's (1994) insights as to the necessity of testing the continued validity of assumptions underlying the business model.

I have used Drucker's (1994) Theory of Business combined with the work of Brookfield (1995) to explore the role of assumptions in driving business models and the different strata of assumptions.. The Theory of the Business is used to explain why my response to the 2009 recession demonstrated that my extant theory had become obsolete. By addressing the role of assumptions and engaging in a process of adaptive change to challenge the validity of these, I provide insight into how assumptions influence management practice.

This work has combined the work of Porter with others in the area of strategy. It also incorporates many of the newer developments such as Blue Ocean, co-creation and disruptive innovation within the action research cases. Having considered its continued relevance and applicability, I have used the Porter Five Forces model to analyse the operating environment and to review the competitive forces in the industry and trends in these. Although conceived in the Industrial Age and based on a manufacturing paradigm, the core principles of Porter continue to have resonance in a traditional industry in the Information Age. In addition, this work highlights the

importance of assumptions in driving business models. By being aware of trends and developments in these forces, assumptions regarding the environment can be kept valid. By constantly ensuring that the value chain of the company reflects the chosen strategy, assumptions regarding core competencies can be kept current. The linking of the literature on positioning with that on assumptions provides a basis for understanding the industry environment and for ensuring the analysis is kept relevant. It also demonstrates the extent to which modern open approaches to innovation can be applied in a traditional industry.

Drucker (1985) asserts that "every practice relies on theory" (p.23). This work lends support to this assertion by applying first person methods to uncovering the theories underlying my practice and then by examining their applicability to prevailing conditions. These theories are based on underlying assumptions. I have demonstrated a method of examining and renewing these theories and assumptions in a manner that has relevance for practitioners.

The development of a Theory of the Family Business introduces family dynamics into Drucker's approach. Family business differs from conventional business by the presence of family ties in the business environment. I have discussed throughout this work the complications it introduced for me. As such, it is valid that assumptions regarding family including family dynamics, the interaction of family and management, succession planning, etc. be included in a theory of business. Given the prevalence of the family business model, it adds a layer to the understanding of this business form and provides a means of incorporating various levels of assumptions. Whereas on one level it could be argued that family assumptions can be considered as part of the wider assumptions of the environment, I believe that the role of assumptions concerning family in a family business merit a separate category in any Theory of Business. Doing this distinguishes

family business from conventional business and recognises the existence of factors not found in conventional business. By incorporating assumptions regarding family into the Drucker approach, I have modified the Theory of Business to incorporate the most common form of business in Ireland (GEM, 2014).

As a first person action research project (with elements of participatory action research in the product development case in Section 4.5.1), this study has shown how the familiar steps of construct, plan, take action and evaluate can be seen in various guises. The action research methods are shown as appropriate for the transformation project which I undertook. The various action research cycles combine into a meta-learning project (Coghlan & Brannick, 2014). This project adds to the growing realm of insider action research and "builds knowledge and expertise in this field" (Coghlan & Holian, 2007, p.9). I have followed the guidance of Marshall (2011) in "adopting an enquiring approach to my own assumptions, perspectives and action" (p. 245). It combines first person action research with engagement with an adaptive change process and applies the results to a range of business projects.

5.4 Future Research Direction

I believe that the outcome of this research suggests several avenues for future research. Fletcher et al (2016) indicate a dearth of interpretative work in the area of family business. This work, based on a first person epistemology, is an attempt to address this gap. Future research may extend this focus by further exploring the succession experience from the perspective of the successor. It would be instructive to see similar work in alternative industry environments and conditions.

A recent paper (Michael-Tsabiri & Weiss, 2015) has applied game theory to family business succession. I did not explore this area but suggest that it may be a fruitful area for investigating strategy and its implementation in family business. I have alluded to the significant competitive rivalry present in our industry. Given the emotional nature of much competitive rivalry, i.e. action followed by retaliation, a game theory approach could provide insight into the process of competitive rivalry and perhaps suggest solutions to excessive rivalry.

An area which I did not explore was the influence of emotions on decision making and the extent to which this contributes to competitive rivalry in the industry, particularly amongst SMEs. Glover & Reay (2015) identify emotional attachment as a component of protecting the socioeconomic wealth of family businesses and it may be an avenue for future research in this area.

5.5 Final Remarks

I began this Portfolio tentatively returning to study after a long absence. The idea of undertaking a transformative journey both excited and terrified me. I would have to confront past certainties and fears and question that which had stood me in good stead throughout my working career.

Nevertheless, deep within me I knew that my professional development had stalled, which was evident from my response to the 2009 recession. My business was drifting, with no discernible strategy other than waiting for the rising tide to re-float our boat. It was time to delve into the theories and assumptions underlying my management practice and assess their suitability for the new environment I was forced to navigate.

Exposure to the Adult Mental Development theory of Kegan (1982, 1994) opened my eyes to a new way of assessing meaning making and mental capacity. It exposed the limitations of my meaning making and offered opportunities to pursue development in this sphere. The transition from socialised to self-authored was liberating for me, in that it removed the self-inflicted pressures originating in my background and allowed me to "to be guided by[my] own vision" (Kegan, 1994, p. 172). I no longer feel pulled by the expectations of others but am "guided by my own visions at work" (op. cit. p.153).

Although my role has not significantly changed since the beginning of this process, my relationship to it has changed beyond recognition. I no longer feel confined by it and subject to the expectations of others. The freedom coming from being the owner of my own work has liberated my thinking and enabled me to take a fresh look at both my management practice and the strategy of our business. It has emboldened me to question and revamp accepted practices and to think differently about relationships both within and outside our company. In conclusion, I have greatly benefited from the transformational journey that I have begun to travel and look forward with anticipation to where it will bring me in future.

Appendix 1 Background Information

Background to the Quarry and Concrete Products Industry

The quarry and concrete products market is a subset of the Irish construction industry. The overall construction industry has an output of approximately 6.5% of GDP.[25] This is considerably below the European average of 12%. The construction materials market had an approximate value of €850m in 2012 and has remained largely static since then. Employment in the industry peaked at 15,000 in 2007 and has fallen to 4,000 in present times. Cement sales volumes have fallen 80% from peak to trough with similar declines in quarry and concrete products.

The quarry and concrete products market in Ireland is stratified into two levels. One level contains the multiple players. The largest of these is the vertically integrated CRH group which operates worldwide. It is estimated to control approximately 30% of the market. It is the only significant player in the industry to operate its own cement plants. This gives it significant competitive advantage and pricing power. There are two other nationwide multiples, who are estimated to control another 20% of the market between them. The other level in the industry is the local independent producer such as ourselves who currently control the remainder of the market, mostly in rural locations. These players will usually own one or two operations and be locally focused. In addition, there are small raw material suppliers to the industry. The will typically be family owned and operated and supply a limited range of products, most often sand for use in concrete plants. Many of the current family-owned concrete producers (including our company) began their existence at this level but over time

[25] Statistics quoted in this section are taken from a number of sources, including two Irish Concrete Federation/ Intertrade Ireland (a government trade promotion agency) reviews of the industry in 2012 and 2015, various editions of Quarry Management which is the main periodical for the industry, ESRI and other economic commentary and the personal experience of the author.

forward integrated into concrete products. This sector has been the source of the majority of new entrants into the industry.

An important competitive factor in the industry is that it is a high volume, low margin business. Trading margins would average 5-7% in my experience in normal trading conditions. Transport costs account for 20-40% of the product price. This has the effect of limiting the market potential of a quarry or concrete plant to an economic delivery radius approximately 20 miles from the manufacturing operation. The other factor is that quarries can only be operated in areas where the appropriate reserves exist. These are usually in rural locations. Due to these geographical influences, a local independent operator may have a strong regional market position but be unable to exploit this on a national level.

Concrete producers are dependent on securing a regular supply of cement- the most important and costly raw material. There are three producers in Ireland and a number of importers. The large capital investment required to establish a cement factory (up to €100 million) militate against independent producers obtaining such a facility. Again due to geographical and logistical constraints, many concrete producers lack choice of supply and are forced to deal with a single supplier. From discussions with colleagues in the cement industry, I believe that margins from the cement industry are three to four times that of the concrete industry. This gives a significant market advantage to the vertically integrated players who can effectively subsidise the lower margin concrete and quarry aspects of their business with the higher margin cement business.

The quarry and concrete products industry has contracted significantly since the construction downturn which started in 2008. Due to the localised and geographically

diverse nature of the industry, there have been relatively few location closures, but rather individual locations have been rationalised. The multiples have closed peripheral locations but the majority of independent producers have not had such a choice.

The decline in market volume and the fact that consolidation has largely been absent has led to significant price competition as operators struggle to survive. Margins have fallen below sustainable levels required to reinvest in capital assets in what is a capital intensive industry. Many operators are loss making and many carry significant debt levels, arising from ambitious capital investment during the peak years. The accepted view within the industry is that consolidation is inevitable. The UK market is controlled by four players who account for 85% of the market and there is a belief amongst industry observers that a similar structure will eventually prevail in Ireland.

Background to Gleeson Quarries

The business I operate is part of a family-owned group of three similar companies, based in different parts of Tipperary. The Gleeson family have been involved in the construction products market in Tipperary since 1958. Gleeson Quarries (which I operate) was founded in 1987. It is located near Cashel, Co. Tipperary. It supplies aggregate and concrete products to the local construction market. It originally operated as a branch of our existing operation but for the last twenty years it operates autonomously. My two brothers operate the other companies in the group. We operate autonomously but would co-operate on sharing resources to cope with peaks and troughs in the market. We also operate as a central purchasing unit to maximise buying power for inputs. We have regular scheduled meetings to review operations and future strategy. These act as a sounding board for issues and problems that arise.

Role of Trade Association

The industry is represented by the Irish Concrete Federation. This trade association was formed in 1994 from the merger of a number of smaller representative associations. It represents over 90% of concrete and quarry producers in the Republic of Ireland, encompassing both national players and SME producers. It is guided by an industry council which reserves places for both national and SME producers to ensure a diversity of perspectives guide the formulation of industry policy.

Appendix 2 Strategic Analysis using Five Forces Model

In this appendix, I discuss the application of the Five Forces analysis to the Irish concrete and quarry products industry. I outline the impact of each of the forces and how it has shaped the industry environment. This is a complement to Section 3.6 which takes the outcome of this analysis as the starting point for developing a strategy for my business.

Power of Suppliers

In the concrete products industry, the most powerful suppliers are cement suppliers. The cement cost of a load of concrete typically amounts to 40% of its selling price and is the largest single component of cost. There are only three cement suppliers to the Irish industry, two of which also operate concrete plants. In contrast, there are approximately 100 concrete producers in the industry.[26] Therefore, cement companies have considerable market power. The price and credit terms offered to individual concrete producers have a considerable impact on their profitability. The concrete producers have encouraged suppliers of alternative cements derived from the steel industry and specialty chemical suppliers to produce products that reduce the cement requirement per load in an effort to lessen the power of cement suppliers. However, this has only had a marginal impact (c. 10-15%) on the cement requirement. Cement producers have significant pricing power and can use this and selective discounting to undermine profitability in the downstream concrete product market. The cement industry is in a position to capture profits at the cement level rather than allowing them to filter through to the downstream products market.

[26] The cement suppliers are Irish Cement, Lagan Cement (both of whom have group companies who operate concrete plants) and Quinn Cement. The number of concrete producers is estimated from the membership list of the Irish Concrete Federation and supplemented by my own knowledge of other producers.

Thus, as would be expected by the criteria suggested by Porter (1980), cement suppliers represent a dominant influence within the industry. Other suppliers, including labour, logistics sub-contractors and machinery suppliers lack similar bargaining power and in each individual case would represent a relatively minor percentage of overall purchases.

Power of Buyers

The bargaining power of buyers depends on the relative leverage and pricing power of the buyer. Buyers compete with the concrete producers for profits by forcing down prices or demanding higher quality or services.

The power of buyers in the concrete industry is stronger in certain market segments[27]. In the civil engineering / large contractor segment (road, bridge, school, factory construction projects), the buyer will exercise significant bargaining power due to the large volume of purchases undertaken over an extended period. This allows buyers to demand significant discounts on supplier list prices. As these contractors typically have a number of projects in construction simultaneously they have excellent knowledge of prevailing product specifications and market prices in different regions. The lowest price being paid for a product in one geographic area by the company is typically the opening offer to suppliers in another area. An additional factor is that the salary and incentive scheme for procurement personnel is usually based on the cost savings they achieve. There is an almost exclusive focus on price in negotiations. The

[27] In 2015, Irish construction output was estimated at €12,515m. Residential accounted for 47%, civil engineering 27%, commercial and agriculture 13% and social infrastructure 13% (DKM, 2016). Main contractors dominate the civil engineering, commercial and social segments. The 30 leading main contractors are estimated to have a turnover of €3.15bn, in 2016 representing 50% of these categories (Linesight, 2017)

distance between purchasing and site users means that working relationships between the parties tend not to develop to a significant degree.

Whereas buyer power is significant at the large contractor level, this diminishes in proportion to the size of the customer, as would be expected. The buyer power is less evident in the SME contracting sector. In these cases, the director/owner generally conducts pricing negotiations and will also be the ultimate site user. These tend to place more emphasis local relationships, security of supply and customer service and responsiveness. Their individual scale is quite small but they tend to have long term relationships with both tradespeople and material suppliers.

The relative bargaining power of buyers across the above segments suggests the possibility that a strategy focused on a particular market segment has the potential to deliver above average profitability. To a large extent, the characteristics of the different market segments reflect the structure of our own industry between national and local, family-owned players (See Appendix 1). The implication of this for strategic positioning is explored in Section 3.6.8.

Threat of New Entrants

The threat of new entrants has the effect of holding down profitability as it impacts on the willingness of incumbents to implement price increases. The ease of entry to an industry is dependant on factors such as capital requirements, economies of scale, proprietary knowledge required, brand awareness and government policy (Porter, 1985).

Entry to the concrete industry has been closely correlated to the state of the Irish construction market. During the buoyant market from 1995 to 2007, capacity in the industry more than doubled. It is estimated that new entrants contributed 50% of this increase (Intertrade Ireland, 2012). The commoditised nature of concrete products, with little proprietary knowledge and relatively low initial capital investment required, coupled with easy access to bank finance and a rapidly growing market were the main factors leading to an expansion in entrants. To a large extent, new entrants were raw material suppliers attracted by the perception of enhancing profitability by forward integration (see Appendix 1).

The collapse in the construction market post 2009 and the attendant reversal in credit conditions have led to a lack of new entrants since then. Historically, barriers to entry to this industry have been low and directly related to the level of activity in the overall construction market. The current threat remains low, given current market conditions and regulatory environment[28], but a historical perspective would suggest that the pattern of entry being related to activity in the wider construction market will persist.

Threat of Substitution

Substitute products perform the same function for customers. Their presence limits the price that can be charged by firms in an industry. Trends in product substitution play an important role in strategic positioning, as changing customer needs can render the value proposition of a firm obsolete (Drucker, 1994).

[28] Changes to the Planning and Development Acts in 2011 have closed loopholes that could be availed of to avoid the necessity of obtaining planning permission for concrete manufacturing facilities, making it more difficult to enter the market.

As a product, concrete is ubiquitous. It is considered the second most used product in the world after water (ICF, 2015). It has no direct substitutes in most aspects of the construction market. The threat of substitutes is confined to commercial and residential market segments in projects such as multi-storey buildings (steel frame construction) or multi-unit housing (timber frame construction) and primarily impacts on the block and precast elements market segments (approximately 25-30% of the industry). Even in these cases, substitution is only partial as concrete is still required in these buildings as a foundation material. Government regulations in areas such as fire proofing, durability of buildings, etc. tend to indirectly favour the use of concrete as a building product. Therefore, it must be concluded that overall the risk of substitution is low. However, this analysis is not static but evolves with developments in the industry. Drucker (1994) highlights the extent to which substitution can ultimately undermine the entire basis of an industry by making its products obsolete. A key message of both Drucker and Porter is that expected future trends in the use of products cannot be ignored. I have seen trends in the wider construction industry towards outsourcing, the convenience of system build[29], design certification, predictability of project timeframes and scarcity of tradesmen which threaten the concrete block market in particular (this accounts for 10-15% of sales in our company).

The concrete block has traditionally been the material for choice for house construction. However, the focus on thermal efficiency and carbon reduction in Building Regulations since 2007 has left the concrete block at a disadvantage compared to integrated timber and steel framing systems as these evaluate the thermal

[29] System build is a term applied to off-site construction techniques. Typically, the frame of the building is manufactured in the supplier's factory and assembled on the construction site. It is preferred on certain large scale projects as it makes projects less susceptible to weather delays and reduces the requirement for skilled tradespeople to be employed on site.

efficiency of the entire structure rather than individual components. I see a necessity to innovate and defend the traditional block product in terms of demonstrating its suitability for use.

Competitive Rivalry

The nature of most industries is that competing for position among rival firms is the basis for competition in that industry (Porter, 1980). In most instances, a move by an individual firm will meet an immediate competitive response from competitors, given the dynamism of most industries. Competitive rivalry is seen both in the intensity and basis of competition (Porter, 2008). Retaliatory measures by an individual company can leave the entire industry worse off as it may unleash a sequence of such measures.

The nature of competitive rivalry impacts on profitability. Porter (2008) suggests that competition focused primarily on price is most destructive to profitability. This is due to price cuts being easy to match by rivals and can cause customers to focus on price attributes, to the detriment of other differentiating factors. Competing on other facets such as service, features, delivery, etc are less damaging to profitability as they tend to differentiate competitors in the minds of customers.

The industry in which I operate is characterised by fragmentation, with a large number of geographically dispersed competitors. This leads to enhanced competitive pressures and a tendency of buyers to play one competitor against another. Fragmentation has many causes within our industry, among them high transport costs, perishability of the product, low entry barriers, and consequent lack of economies of scale (Porter, 1980).

Grundy (2006) argues that competitive rivalry in an industry is a function of the number of players in the industry, their commitment to the industry, their respective strategies and their relative homogeneity. The concrete and quarry industry, at the broadest level, from the perspective of external buyers and suppliers, largely produces a set of homogenous, standardized and undifferentiated products and thus is susceptible to intense competitive rivalry. The primary factors driving competitive rivalry within the concrete products industry are:

- Overcapacity arising from the collapse of the construction industry from 2007-2009. This led to a 70% reduction in demand for the industry's products. There has been a modest recovery since 2013 but 2016 volumes are still less than 50% of peak demand (DKM, 2016).
- Lack of exit routes for those looking to exit the industry due to the specialized nature of assets and lack of acquiring parties.
- As quarrying may originally have commenced on a family owned farm, there is an emotional attachment to the land, regardless of whether the business is profitable. This also leads to a tendency to ascribe a zero value to the land being consumed by the operation and for replacement costs not being accounted for in costing products.
- Poor knowledge of costs and cost drivers, particularly among smaller integrated (quarrying and concrete products) producers leading to a focus on marginal costs and no account being taken of the replacement costs of assets (Intertrade Ireland, 2012).
- Weak enforcement of land use and product quality regulations enabling unlicensed operators to supply projects at lower selling prices (Intertrade Ireland, 2012).

- A significant focus when bidding on projects on price -enabling buyers to stimulate a bidding contest for large projects. The award criteria for large contracts focus almost exclusively on price.

Of the five forces, I regard the competitive rivalry within the industry as the most significant force in undermining industry profitability. Porter (2008) regards price competition as the most damaging to profitability yet it is the most prevalent form of competition within our industry. In my experience, this tendency arises within industry players due to a general lack of strategic awareness and in particular a lack of understanding of the need for positioning. Too often, companies compete for contracts without considering whether they have any competitive advantage and will attempt to compete on the basis of price in the absence of any other advantage.

Appendix 3 Review of Financial Information

This appendix reviews the financial performance of Gleeson Quarries and comparable companies in the concrete and quarry products industry. The first table (Table 8) shows the net margin and return on capital employed for Gleeson Quarries for the period 2002 to 2016.

Table 8 Analysis of Gleeson Quarries accounts

Analysis of GQ Accounts

Year	Margin	ROCE	Average
2002	25%	27%	
2003	26%	31%	
2004	12%	16%	
2005	14%	16%	
2006	16%	23%	
2007	18%	27%	
2008	15%	19%	23%
2009	2%	1%	
2010	-3%	-2%	
2011	2%	2%	
2012	4%	3%	
2013	8%	6%	
2014	6%	4%	
2015	-1%	0%	2%
2016	11%	8%	

Table 9 is a review of the accounts of comparable companies in the industry. I have selected companies of similar scale and geographical region as our own company. As the majority of these companies are classified as small companies under company law, they are not required to file a profit and loss account. Hence, it was not possible to calculate profit margins. In addition, there are a significant number of unlimited companies operating in the industry who are not obliged to file accounts. This

grouping includes all the national players as well as several of the larger family owned entities.

Table 9 Comparison of competitor accounts

Company	Year	Profit	Net Assets	ROCE
A	2014	-135	2,808	-5%
B	2014	-341	6,926	-5%
C	2014	-49	4,541	-1%
D	2014	81	1,502	5%
E	2014	129	550	23%
F	2013	-458	1,174	-39%
G	2014	-670	11,076	-6%
H	2014	193	4,174	5%
I	2014	-145	5,432	-3%
J	2014	214	4,313	5%
K	2014	202	-453	0%
L	2014	149	1,330	11%
M	2014	-281	2,093	-13%
Total		**-1,111**	**45,466**	**-2%**

Appendix 4 Immunity to Change Process

This appendix outlines the steps I went through when applying the Immunity to Change process (Kegan & Lahey, 2009). It illustrates my journey through the process and how it allowed me to move my paradigmatic assumptions to object. It should be read in conjunction with Section 4.3.

Essay Two highlighted the need to address invalid assumptions which were hindering my management practice. Working through the Immunity to Change map initially generated in Essay One (p.51), I honed my immunity map further[30], I extended it to include additional points as follows:

- If I am not seen as hard working, people will think I did not achieve my position on merit, but by nepotism.
- If I am not seen as hard working, the company will fail and my family's livelihood will be undermined.

The resulting map is as follows:

Table 10 Revised Immunity to change Map

Visible commitment	Doing/not doing instead	Hidden Competing commitments WORRY BOX	Big Assumption
I am committed to being a better delegator	Doing work myself	I will be seen as owing my position to nepotism.	I assume that if I am not seen as pulling my weight then people will think that I'm not up to the job
	Taking back work already delegated	I'm the only one able to do the task	If I'm not seen as working hard, the company will fail and my family's livelihood will be undermined
	Doing work myself rather than overload someone else	I'll be resented if I'm not seen as contributing	If I'm not seen as working hard, people will say that I didn't obtain my position on merit

[30] Workshops were facilitated by Ann Nagle, a qualified instructor in the Immunity to Change process, held from July 2015 to February 2016.

Being seen in the office at start and end of day Insisting on covering meal breaks and holidays myself Not saying "no" to additional requests to do work Overcontributing at group meetings i.e having an opinion on every topic	Staff won't respect or follow me if I'm seen as not working hard
	I'M COMMITTED TO:
	Always pulling my weight
	To be seen as always pulling my weight To setting the pace of the business To giving good example to staff To doing what I expect others to do To having all the answers
	To always being right

Source: Author, adapted from Kegan & Lahey (2009)

I had arrived at a stage in my professional career where I equated leadership and working hard to being seen in the office, answering phones, micro managing delivery schedules and carrying out mundane tasks. On a deeper level, I was aware that this was not the most appropriate use of my time. However, this practice had evolved as a response to the invalidation of my theory of business as a result of the collapse of the construction industry in 2009. By 2015, I was aware of the extent to which this was limiting me and hindering my response to the changed environment.

The first step along the process of overturning this Immunity to Change, having identified the assumptions requiring work, was to write a biography of my Big Assumption. I identified that it originated in childhood, when I internalised

conversations indicating that any success I achieved would be entirely due to the circumstances of my upbringing, that I would owe it all to my father. This instilled a determination in me that I would work hard so as never to have the charge of nepotism levelled at me. My explorations of the impact of succession are set out in Essay Two, Section 3.3. I can see the effect in the behaviours and assumptions inherent in my management practice.

The facilitation process in which I engaged required running tests of the Big Assumption. I designed the tests using the criteria outlined by Kegan& Lahey (2009):

- S Safe and low risk;
- M Modest in its ambitions;
- A Actionable in the short term;
- R Research stance adopted;
- T Testable data can be collected;

The objective was to obtain data as to the conditions under which my Big Assumption was valid. Given that the Big Assumption is essentially a self-protection mechanism, I believed it essential to test its validity under particular circumstances. In designing tests, I was conscious of the need to generate data and be attentive to the impact of changing behaviour. The research method followed the principles of action research, in that it was an iterative process of constructing, planning, acting, and evaluating tests, with each successive step dependant on reflection on and evaluation of the previous one.

Initial tests inquired into the impact on both me and the office staff of my not being physically present in the office at all times. The first test involved absenting myself from the office for two days. Running counter to some of the behaviours noted in the

competing commitments column. I explained to the staff that I would be absent from the office on trade association business but would be contactable if required. This was more for my own reassurance as I knew that they were competent and capable of handling regular issues. The results of the test were that daily tasks were completed on schedule and any issues that required escalation were referred to me upon my return.

On one level, the outcome of the test was no surprise to me. The staff in our company are well trained and competent. Issues that have to be referred to me or our technical advisors are clearly understood. My reluctance to delegate was my Big Assumption manifesting itself, rather than a lack of confidence in the competence of my staff. The data obtained was sufficient to suggest to me that my big assumption might not hold in this case.

This realisation was the basis for progression. I could now investigate whether the Big Assumption was valid in other circumstances. The next stage of the test was to review the extent to which my perceptions of my role matched those of my staff. I separately surveyed the three office staff as to what they considered to be the key aspects of my role, those aspects where I could add most value. I asked them to list these and rank in importance. Among the key aspects identified were:

- Setting and guiding company policies;
- Providing a sense of direction for the company;
- Putting the resources in place to allow them to do their jobs;
- Providing guidance and support when required;

For me, the most interesting aspect of the exercise was that the areas that I had concentrated on were not important to them. It was not important that I be seen in the office at all times. Instead, there was a confidence that I knew my role.

I decided to run a further test, similar to the first but over a longer timeframe. I informed the office staff that I would be absent for a week due to other commitments. The objective was to investigate the impact both on me and on the work outcomes. The result was similar to the first test. Work was completed as expected, with issues escalated for my attention as appropriate. From my perspective, I did not experience any anxiousness as the result of my absence. This confirming data was hugely useful in reinforcing the results of the previous test and further undermined the veracity of my assumptions.

My facilitator encouraged me to complete a Continuum of Progress in relation to overturning my immunity to change. This illustrates what my practice would look like if not subject to the Big Assumption. The process involved picturing what full success looks like, the first steps towards achieving this and signs of significant progress. A summary of this continuum of progress is:

Table 11 Continuum of Progress

	Continuum of Progress	
Goal	I am committed to being a better delegator	
Big Assumption	I assume that if I am not seen as pulling my weight then people will think that I'm not up to the job	
First noticeable step Forward	**Significant Progress**	**Full Success**
		Being confident that when I delegate a task that it will be done properly
Notice need to take over	Not feeling need to intervene	Not feeling compelled to continually check in on people
Prioritise list of tasks	Review at higher level	I would feel at ease in the office
Set own diary and follow it	Organise diary more effectively	I wouldn't feel pressurised to respond every time I hear the phone ring
	Prioritise tasks	I would be more strategically focused
	Spend more time on strategy	People know what to bring to me- I can coach them to find the answer
	People can escalate to me if needed	
	I've taught people what and when to escalate	

Source: Author, adapted from Kegan & Lahey (2009)

The final step in the process is to imagine hooks and releases, i.e. those triggers that engage the Big Assumption or cause the Big Assumption not to apply. Kegan & Lahey (2009) envisage this as a consolidating step in the sequence and outline four stages in overcoming immunity to change:

1. Unconsciously immune
2. Consciously immune
3. Consciously released
4. Unconsciously released.

The first stage occurs at the beginning of the process, where the assumption is unrecognised and the final stage is indicative that the person is no longer held by the assumption. The goal of the process is to move from the first to the last stage, where the behaviour being tested becomes a choice rather than a reflex. To achieve this step, I can now recognise the triggers that lead to the behaviours generated by my previously held Big Assumption. The repeated tests and my reflection on the outcomes have trained me to re-imagine my role within the company to such an extent that I no longer recognise the validity of my previously held Big Assumption. Thus, I consider myself unconsciously released from it.

Appendix 5 Reflective Journal Extract

This extract is from March 2015 after a seminar with Professor Robert Kegan in UCC. I regard this seminar as a key moment in my transformation.

Having completed the ITC maps under Prof. Kegan's supervision, I was shocked at the outcome. Prof. Kegan worked with me one on one- he asked me to imagine the worst thing that could happen and note it in my worry box. This turned out to be the notion that I had not achieved my position on merit and that I was the beneficiary of nepotism. This was a moment of the scales dropping from my eyes. This assumption explained much of my management practice- why I felt it necessary to be seen on the premises and to be operationally involved. It also explained why I avoided conflict in many instances- I was afraid of being seen to abuse my position. This insight came as a surprise, given my level of qualifications and training. I was still subject to expectations and assumptions stemming from my family background. I suppose that it is natural for a child to want to demonstrate competence to a parent and to prove themselves a worthy successor. Equally, it seems logical, on reflection that a successor would want to demonstrate that their suitability for the role of MD consisted of more than simply having the correct surname.

These assumptions, surfaced and prompted by the ITC process, were not apparent to me. They explain why, in Kegan's terminology, I have one foot on the accelerator and one foot on the brake. This once hidden assumption is a key aspect of my management practice and I now see the extent to which it has hindered me. It has inhibited my effectiveness and made me look inwards too much. By progressing through the remainder of the ITC process, I can deal with the Big Assumption I am

surprised by the power of the ITC framework to diagnose and uncover what had been hidden to me throughout my working career. My Big Assumption had shaped my management style and influenced how I managed my company.

A third order meaning system has proved insufficient to steer a course through this new environment. My Big assumption is causing me to look backwards to what my father did or imagine what he would have done. I can see that the first stage of overcoming a Big Assumption is to be aware of it. I now have confidence in the ITC process in that I consider it appropriate for my needs and to address limitations in my meaning making.

From discussing ITC with Prof. Kegan, I see the value of moving to a more complex level of mental capacity. Management has evolved to now be a fourth order mental demand- to be successful, I must operate at this level. I have come to a realisation that my Big Assumption is holding me back. I can feel its impact across my management practice for the first time since my return to the family business.

This has been the key insight I was searching for throughout this first year of study. I now have a starting point on the transformation journey. I had previously ben unsure about how to commence the transformation process and what exactly I needed to work on. I can now focus on literature on family business and the role of assumptions as an initial direction and themes for the Reading for Change aspect of the programme.

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