Behaviour and Investment Actions within Fund Managers and their Markets
- Developing and analysing a grounded theory of fund management

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The financial crisis of 2007-09 has raised questions concerning orthodox ideas of how financial markets operate and how financial institution firms (and their decision makers) behave in such market settings. The crisis has revealed the need for new thinking in these areas. This paper outlines a grounded theory of the fund management firm and investment decision making at the level of individuals and teams. The theory comprises the role of external and internal firm contexts on individual fund managers and teams and the funds they manage. It includes the properties of FM firm organisational contexts comprising order, creativity, knowledge, coherence and matching; and the relative peer group strengths of these properties. It includes the properties of individual and team contexts and their strengths. These contexts and their properties all purposefully interacted as collective and integrated FM organisational means (or dynamic system) to help individuals and teams to reduce the complexity of new information flows, to make sense of information, to avoid their own negative behaviour, to exploit the behavior of others, to take investment decisions, to create diversified portfolios, and to produce FM financial performance (at the level of funds managed, and the firm overall). The FM value creation process, the continuous interaction (and periodic disclosure) with investee companies and with stock and information markets, and ongoing investment decision making at individual and team level, also led to cumulative FM learning and strategic choices about the perceived drivers of fund and market outcomes. The interaction and learning created new knowledge intensive contexts or priors for FM investment decision behaviour which then became drivers of subsequent investment decisions. The ongoing investment interactions, the longer term knowledge creating interactions, and the FM responses revealed the dynamic elements to FM investment behaviour. The FM contextual elements and dynamic interactions were common empirical patterns across case FMs.

Variation in context and properties were used to tentatively explain, in part, FMs type or style. Variation in strength (weaknesses) of contextual properties (within a fund type or peer group) were used to tentatively explain, in part, differences in performance. A major function of the grounded theory may be to provide a new conceptual tool to fully investigate the reasons for such variety in FM styles. In addition it may provide a new tool to fully investigate and explain the reasons for pervasive and systematic FM underperformance rather than to explain the more unusual cases of success. The research was conducted through case interview field work in 20 large international FMs during 2004-2011 and use was made of archival sources. A grounded theory approach was employed in processing the data. The results were discussed relative to relevant literature and to previous grounded theory of FM. Areas for further research were identified.

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Abstract
The financial crisis of 2007-09 has raised questions concerning orthodox ideas of how financial markets operate and how financial institution firms (and their decision makers) behave in such market settings. The crisis has revealed the need for new thinking in these areas. This paper outlines a grounded theory of the fund management firm and investment decision making at the level of individuals and teams. The theory comprises the role of external and internal firm contexts on individual fund managers and teams and the funds they manage. It includes the properties of FM firm organisational contexts comprising order, creativity, knowledge, coherence and matching; and the relative peer group strengths of these properties. It includes the properties of individual and team contexts and their strengths. These contexts and their properties all purposefully interacted as collective and integrated FM organisational means (or dynamic system) to help individuals and teams to reduce the complexity of new information flows, to make sense of information, to avoid their own negative behaviour, to exploit the behaviour of others, to take investment decisions, to create diversified portfolios, and to produce FM financial performance (at the level of funds managed, and the firm overall). The FM value creation process, the continuous interaction (and periodic disclosure) with investee companies and with stock and information markets, and ongoing investment decision making at individual and team level, also led to cumulative FM learning and strategic choices about the perceived drivers of fund and market outcomes. The interaction and learning created new knowledge intensive contexts or priors for FM investment decision behaviour which then became drivers of subsequent investment decisions. The ongoing investment interactions, the longer term knowledge creating interactions, and the FM responses revealed the dynamic elements to FM investment behaviour.

The FM contextual elements and dynamic interactions were common empirical patterns across case FMs. Variation in context and properties were used to tentatively explain, in part, FMs type or style. Variation in strength (weaknesses) of contextual properties (within a fund type or peer group) were used to tentatively explain, in part, differences in performance. A major function of the grounded theory may be to provide a new conceptual tool to fully investigate the reasons for pervasive and systematic FM underperformance rather than to explain the more unusual cases of success. The research was conducted through case interview field work in 20 large international FMs during 2004-2011 and use was made of archival sources. A grounded theory approach was employed in processing the data. The results were discussed relative to relevant literature and to previous grounded theory of FM. Areas for further research were identified.

1. Introduction and use of literature
The financial crisis during 2007-09 revealed many problems of understanding and learning by FM firms about their own business models and those of their investee companies (especially banks, Holland 2010). In addition, there has been poor financial performance by many FMs when delivering investment services to investors (Cuthbertson et al 2006, 2008). Environmental, social and governance (ESG) issues in equity investment decision making by fund managers (FMs) have become very high profile in the past decade. Holland (2011) argues that Trustees, FM investors, and investee companies, all require shared knowledge in the form of a grounded theory of FM to overcome these problems. Holland, (2006) notes the limits of conventional finance theory in explaining FMs and their performance. Historic field research by Clarkson (1963), Holland and Doran (1998), Hellman (2000), Holland (2006), revealed an embryonic grounded theory underlying FM structure and behaviour. However, the results were fragmented and a more coherent explanation of FM was required. Embryonic grounded theory of fund management does not address questions concerning the role of knowledge in FM decision context and process, and their joint role in search for novel information of value in investment decisions. It does not address the dynamic nature of FM both immediate and longer term. As a result the research questions concerned the following. How do large fund firms organise and conduct their investment decision making? and how does learning experience during decision action change their subsequent decision behaviour?

Locke (2001. ch.7) comments that "the presentation of grounded theories similarly follows a format that involves the telling of theoretical elements and the showing of data fragments that instance them" and this format can be outlined as: summarise the theoretical frame -serially present each theoretical element well illustrated with data instances - summarise the theoretical frame". Locke (2001. ch. 7:120) also points out that there is a problem of how to use the literature in the presentation of grounded theory. The presentation of literature in the early phases of the paper 'mimics the hypothetico-deductive approach in which theory is a priori. She comments: 'But what happens to how we write the literature when we begin with empirical data and hold existing knowledge in
The literature is employed in this paper in the following senses. The paper begins in section 2 with a brief summary of the literature. The historic literature and an analysis of current issues are used to establish the phenomena and problem area to be investigated. Section 3 uses literature on grounded theory to discuss this research method. In section 4 the grounded theory of fund management is briefly presented (peek) and summarised as a ‘paradigm model’. In section 5, an overview (peek) is provided of the analytic framework used to interpret the empirical patterns in fund management. This analytic framework is based on a set of relevant theories and literature relevant to the FM phenomena. Each major results section (6 to 10) contains a succinct summary of the case results set within key grounded theory themes or elements, and these are both discussed within relevant literature from the analytic framework. Section 6 outlines the role of internal and external context (or priors) in investment decision making process and actions. The external context of FMs consisted of various external ‘networks’, markets, and ‘chains’ of accountability. The internal context of FMs consisted, inter alia, of a strategic or top management context, an organisational context, a team context, a personal context, and an immediate decision or action context. The wider role of knowledge in these contexts (and about these contexts) and of order in these contexts was also important to decision actions and process. Literature by authors such as Nonaka and Toyama (2005), Nelson and Winter (1982), Scott and Meyer (1994) is used to explore these contextual issues. Section 7 explores action, behaviour and process in investment decision making by individuals and teams in an organisational setting. It focuses on the purposeful dynamics of the immediate decision context involving individuals and teams in FM firms, and explores how these dynamics at team and individual level were mediated by larger FM organisational or firm wide contextual factors. Key literature by many authors such as Weick (1979) and Cyert and March (1963) are used to explain this empirical phenomena concerning the world of action and behaviour in FMs. Section 8 interprets individual and team behaviour in the dynamic decision processes within Herbert Simon’s ideas and ‘behavioural finance’ literature. The dynamics of leaning within organisations played a role here in altering FM wide knowledge, team and individual characteristics. These created novel opportunities for FMs as individuals and teams to ‘satisfice’ in sophisticated ways and to overcome some of the problems of bounded rationality and of behavioural finance (eg. over confidence) during dynamic decision actions. Section 9 discusses the longer term dynamics in FM involving learning, knowledge creation, feedback and the development new priors in FM. The latter became the new context and drivers of new investment actions in FM. Nonaka and Toyama (2005) and Holland et al (2011) are key literature in this area. Section 10 discusses issues of variation and weaknesses in FM and how they relate to style and performance. In section 11 the overall grounded theory is discussed relative to literature on previous grounded theory and the analytic framework. Finally, section 12 summarises the paper and areas for research and policy are identified. This section notes the many novel uses of the grounded theory and analytic framework including enhancing current explanations of FM, improving FM disclosure and accountability, and creating a new programme of research in finance.

2. Research problem

In this section 2, historic literature and an analysis of current issues are used to establish the phenomena and problem area to be investigated. The financial crisis during 2007-09 revealed many problems of understanding and learning by FM about their own business models and those of their investee companies (especially banks, Holland 2010). The lack of a learning dynamic in many FMs meant they misinterpreted what was ’value relevant information’ and they encouraged bank behaviour that created major shareholder wealth risks (Evidence to the Treasury Select Committee, 2009). Similar problems have been identified with institutional shareholders learning and understanding about their own business models. This has affected their ability to disclose how their FM business model functions and hence the ability of stakeholders to hold them to account (’Walker Review’, 2009). In addition, considerable empirical evidence reveals the existence of much poor financial performance by FMs when delivering investment services to many investors (Cuthbertson et al 2006, 2008). The empirical evidence notes that only 2 to 5% of mutual founds outperform whereas 20 to 40% of funds have poor records. FM drivers of underperformance include load fees, expenses and turnover. Little evidence exists to support market timing, past winners can persist, but transaction costs reduce the benefits here.

Environmental, social and governance (ESG) issues in equity investment decision making by fund managers (FMs) have also become problematic and very high profile in the past decade. Much positive change has occurred but there have been problems of partial and narrowly focused change and major impediments to change exist (Juravle and Lewis, 2008). Holland (2011) argues that Trustees, FM investors, and investee companies, all require shared knowledge of FMs to overcome problems of transparency and accountability concerning ESG
aims and wealth shareholder maximizing (SWM) aims. This paper argues that the underlying problem is that there is no explicit theory outlining the nature of (invisible) FM value creation processes and their links to (visible observations of) performance relative to shareholder wealth aims and to ESG aims. Such a theory, and shared knowledge of the theory, is required to guide the design of comprehensive and transparent disclosure processes by FMs and to improve accountability with stakeholders. These problems and issues with the FMs suggest that Regulators, stakeholders and FMs all require a more coherent understanding of FM for accountability and decision purposes.

The following FM quote (2010) reveals that FMs recognise the need for a conceptual approach to FM; ‘There is a potentially overwhelming volume of information available to investment managers. And given the laws against insider trading, any information that is being used to make a decision must lie in the public domain. The secret lies in filtering down that volume and concentrating on areas where value can be added. We believe that our organisation and the use of our conceptual approach allows our in house analysts to focus their work on potentially fruitful areas’ And ‘we have utilised our conceptual approach for some 25 years and we believe that this method of focusing on market opportunities, together with our structure and people, have been instrumental in producing our long term investment record.’. The existence of much knowledge in the world of FMs reveals the potential of grounded field work in understanding FM.

An analysis of the historic literature (Holland, 2006) relevant to the paper also illustrates the limits of conventional finance theory in explaining FMs and their performance relative to shareholder wealth and ESG aims. Conventional finance theory is limited in its ability to deal with these issues. Fund managers and other investors faced major problems in implementing finance theory, especially with MPT and the capital asset pricing model (CAPM) when estimating stock returns, and when using optimisation routines to find the efficient frontier and the optimum risk, return portfolio (Holland, 2006). They face similar difficulties when trying to understand empirical regularities in historic price behaviour and when they attempt to exploit the possibility of these recurring by adapting FM investment decisions and portfolio composition.

Field research on FMs has revealed how they have responded to these information and knowledge problems and to the limits of conventional finance theory in a variety of ways. Early field work on fund management included Clarkson’s (1963) simulation of the decision making of an investment trust officer. Field research and analysis on the nature of FM has been limited since Clarkson’s (1963) work. More recent research by Holland and Doran (1998), Hellman (1996, 2000), Arsnwald (2001), Holland (1995, 2001, 2003, 2004, 2006), and Holland and Johanson (2003) have generated many new insights into FM behaviour and actions, and provide an important starting point for this research.

Holland and Doran (1995), and Holland (2006) illustrated that FMs developed a high degree of organisation and special skills to exploit perceived investment opportunities, and to create novel information, and to exploit empirical regularities. These were expected to created advantages in valuation and investment decisions relative to other investors. Hellman (2000) found that investor action, based on fundamental opinions about investments in company stocks, was restricted or reinforced by investor contexts and market premises, the role of valuation models and quantitative analysis in comparison with qualitative judgements. Non-public information was central to opinion formation and fund managers adjusted to other market participants’ expectations, equity valuation methods and ways of using accounting figures. Arsnwald (2001) showed that German fund managers recognised underlying economic information as a source of superior value. Company news and analysts’ earnings revisions imparted a market impulse as strong as perceived mis-pricing of stocks.

This historic field research has provided insights into how and why FMs might be successful or be underperformers or failures. This field work and resulting empirical patterns demonstrated the value of the grounded theory research method but also illustrated the limitations of the embryonic grounded theory of fund management. The field research results were fragmented in Holland (2006) and a more coherent explanation of FM was required. Embryonic grounded theory of fund management did not address questions concerning the role of order and knowledge in FM decision context and process, and their joint role in the FM search for novel information of value in investment decisions. It did not address issues of coherent and organised dynamic interactions with the FM firm and environment and their impact on investment decisions. In addition, the literature and theory analysis of field research was very limited. As a result more research and analysis was required in this area. These issues created incentives to pursue new field research in FMs during 2004-11.

As a result to the above analysis the research questions concerned the following. How do large fund manager firms organise and acquire advantages for the production of information? How do these FM firm contexts and external contexts (and associated stimuli) affect investment decision making by teams and individuals? How does learning and knowledge creation during such action effect and change subsequent FM decision making by teams and individuals? This paper extends prior field work on FMs and develops a more coherent and comprehensive grounded theory of FM. It also provides an example of new ways to use theory and literature in a coherent analytic framework to interpret the empirical phenomena.
3. Research methods

Prior FM research by the author, conducted in 2 stages during 1994 to 2000 (Holland and Doran, 1998; Holland, 2006), revealed very rich and complex insights into many areas of FM ‘action and behaviour’ and led to the development of embryonic versions of a grounded theory of fund management. As noted in section 2, problems were recognised with this research concerning the role of knowledge in FM decision context and process, and the joint role of knowledge and context in the search for novel information of value in investment decisions. This reflected the interim state of ‘theoretical saturation’ reached in the two prior stages (1994-2000) and stimulated a 3rd stage of data collection and processing in 2004-10. Given the previous research and the nature of the research problem, a grounded theory approach was used to process new case data and archival data.

Locke (2001) notes that grounded theory research is concerned with the discovery of theory and knowledge through an iterative process between data and emerging constructs. This inductive, pattern seeking methodology allows a researcher to both develop a theoretical account of the underlying phenomena and to also ground such an account in the case data employed. Ryan et al (p155, 2002) argue that in ‘case study research it is important to know that the researcher has adopted appropriate and reliable research methods and procedures’ and ‘in case study research we replace the traditional criteria of internal validity with the notion of contextual validity which indicates the credibility of the case study evidence and the conclusions drawn from them’. The latter criteria are critical for assessing the interpretative research reported in this paper and the following paragraphs seek to provide the reader with assurance on these matters.

The 2004-11 research was conducted in two phases. Phase 1 of the research involved collecting archival data on each case fund management firm. Recent public announcements, financial statements, and presentations to trustees were collected directly from the FM firms prior to the interview. Web based sources were important archival sources and included information on FM background, purpose, philosophy, and operations. Phase 2 involved interviews during 2004-2011 with fund managers and investment team members in 20 (?) large international fund management firms (FMs). These FMs operated in Edinburgh, London, Frankfurt, Tokyo and other world financial centres. Senior fund managers and active members of their investment teams were interviewed. Their time was scarce and this restricted the interviews to 1.5 to 2 hours length in each organisation. The cases were chosen because of their common type of investment behaviour as active (very large) fund managers with an emphasis on the production of fundamentals information. This multi-case design created opportunities for identifying common themes and differences across the cases (Yin, 1994). Ten of the UK FM firms had already been extensively interviewed, on two occasions, on broadly the same investment decision issues during 1993 to 2000 (Holland and Doran, 1998; Holland, 2006). Membership by the researcher of a trustee investment committee over the study period meant that four UK FMs interviewed as a part of the new study formed much more detailed cases. The aim was not to provide ‘statistical generalisation’ as in more conventional hypothetical-deductive research (Ryan et al, 2002). The aim was to generate enough FM cases to create the conditions for ‘theoretical saturation’ as recommended by Strauss and Corbin (1998, p143). Similar sample sizes had proved sufficient in previous related grounded theory work (Holland and Doran, 1998; Holland, 2006).

The interview questions were semi structured and designed to allow the participants to interpret and describe the phenomena in their own way (Bryman (1988), Buchanan (1993)). Previous grounded research work and the literature helped define these questions (Holland and Doran, 1998; Holland, 2006)). The specific interview questions were kept very simple and focussed on FM investment decisions and the role of FM contexts, FM knowledge and the use of information in these decisions. For example, they included the following questions. What are the key tasks in stock selection and asset allocation? What information sources are used? How do you create knowledge for investment decisions? How do you use company information in your investment decisions? How do you use your knowledge in investment decisions? What FM firm attributes or contextual factors support decisions? Taping was not employed due to the sensitivity of the topics. Confidential case studies were prepared by the researcher within twenty four hours from detailed notes made during the interviews. Other public (web) domain case data was added to each case to construct a combined case narrative of how each FM dealt with the above issues.

McKinnon (1988) and Stoner and Holland (2004) argued that explicit strategies should be developed to counter threats to validity and reliability whilst collecting data in field studies. In this research, counter checks were made between the interview data and archival sources, where available. These included checks against FM presentation slides or against archival sources for publicly observable events. Multiple cases offered opportunities to explore how FMs and other market participants viewed such investment related events for other case FMs. Parallel research work with company managers over the same period (Holland, 2001, 2005, 2009) provided opportunities to cross check corporate views on FM capabilities, decisions and influence over companies and markets. The researcher recognised beforehand that it was difficult to draw implications about FM context, knowledge, and actual FM use of information by using interview and archival data. However various factors enhanced this research approach. It was presumed that experienced FM staff could discuss these factors and how they interacted over time, and how knowledge and information was developed and used. Interviews were the available means to create some insight into the phenomena. The use of the semi structured interviews allowed vigorous discussion to break out in the investment teams interviewed. The prior experience of the
researcher in these research methods in the same context meant that it was possible to probe the research issues in considerable depth. The experience of the researcher involved and prior research relationships with the FMs created conditions of trust and openness. This allowed access to a rich data set about FM. In the case of the three Japanese FMs, three other researchers were involved in collecting the data. This was also used for another closely related research project (Holland et al, 2011).

Case data and the emergent empirical patterns interacted in iterative relationships. This was mediated by priors from the literature review and analytic framework, and prior grounded theory. The analytic framework adopted in the paper, reflected a medium prior level of theorisation (Laughlin, 1995) about the phenomena. It was used to guide the iterative relationship between case data and the emergent empirical patterns. As a consequence the analytical framework was further developed when data was collected and interpreted. Earlier, embryonic versions of the grounded theory (Holland, and Doran, 1998; Holland, 2006), matching company data, and the analytic framework were used for theoretical sensitivity purposes when processing the new data. The paper, therefore, constitutes an exercise in ‘theoretical sensitivity’ whereby new work allows the author to return to the original data with a new perspective (Strauss and Corbin, 1998). During the processing stages the interview responses of the various subjects were compared, continuously sampled, coded, and compared to each other, using the constant comparative method as recommended by Strauss & Corbin (1998). Sampling was conducted until theoretical saturation was reached, or when new information produced little or no change to the codes or conceptual categories identified. That is when no new contexts, dynamics, properties, dimensions, conditions, actions/interactions, or consequences were seen in the case data (p136). These resulting codes were then checked to demonstrate that they were connected to original quotations in the source material and thus provided grounding. More specifically, the original case concepts from earlier grounded theory research were investigated in more depth using the same grounded theory approach and additional open, axial and selective codes were generated.

This led to the further development of new axial codes concerning the range of FM contexts such as external context and internal context made up strategic, organisational, team, individual and immediate decision elements. Axial codes were also developed for investment process, behaviour, action and advantage. Sub categories such as properties (order, coherence, matching, creativity) and strengths of organisational context and process, and of properties of individual (psychological, knowledge) and team (communications) contexts, were also developed. Other key axial codes concerned ‘ongoing investment decisions and feedback’ and ‘longer term dynamics and feedback, learning, knowledge creation and new priors’. Many sub areas of dynamics arose at the level of individuals and teams. These resulting codes were then checked again to demonstrate that they were connected to original quotations in the source material and, thus, provided traceability or grounding. These new and refined axial codes or code networks were then used to develop theoretical constructs (selective coding) and associated ‘maps of causal elements’. These connected the contextual axial codes to the ‘dynamics’ axial codes. These were constructed into a more developed grounded theory of ‘fund management drivers, contextual mediators and action’ in market contexts (Strauss and Corbin, 1998). The paper thus develops a coherent grounded theory of fund management that integrates these factors in a dynamic model. This expanded, developed and provided new detailed insights into the original FM ‘action and behaviour’ grounded theory models (Holland and Doran (1998), and Holland (2006) by showing how they involved more elaborate contextual structures, processes and dynamic relations.

4. Presentation of grounded theory:

In this section the theoretical frame of the grounded theory of fund management is presented as a 'paradigm model' as recommended by Strauss and Corbin (1998:130). Diagram 1 illustrates stimuli (S), the contexts or priors (P), dynamic interactions (X), and outcomes (Y) in the grounded theory of fund management.

The paradigm model was:

The phenomenon of interest was fund management firms, teams and individuals and their investment decision behaviour involving dynamic interactions with investee companies, the market for information, the stock market, and savings markets.

The causal conditions influencing more immediate FM investment decision action and behaviour included external stimuli such as company, market, other FM, and economic events. Prevailing circumstances and changes were major stimuli. Internal FM research as well as FM investment policy drove purposeful FM actions. They were also driven by FM continuous communication and interaction with analysts, companies and other information producers and reporting cycles. Longer term change processes such as the increased securitisation of financial markets and the growth of knowledge intensive changes in corporate value creation processes, stimulated longer term changes in FM knowledge and investment behaviour.

FM contexts for decision making processes - learn priors and their properties

Various contexts or priors played a role in investment decision making process and actions. The external context of FMs consisted of various external ‘networks’, markets, and ‘chains’ of accountability. The internal context of FMs consisted, inter alia, of a strategic or top management context, an organisational context, a team context, a personal
context, and an immediate decision or action context. The wider role of knowledge in these contexts (and about these contexts) was also important to decision actions and process.

**Dynamics of investment decision making**

Diagram 1 illustrates the stimuli, contexts, dynamic interactions, and outcomes in the grounded theory of fund management. This illustrates the stimuli (S), priors (P) or contexts, structures, processes (X), FM actions (X), performance outcomes (Y), perceived market outcomes (Y) and feedback in the grounded theory model (where Y = function (S, P, X)). Two key areas of dynamics involved ‘ongoing investment decisions and feedback’ and ‘longer term dynamics and feedback, learning, knowledge creation and new priors’. Many sub areas of dynamics arose within these such as dynamic processes arising at team and individual levels, and their interactions with firm level contextual factors.

During the ongoing investment decision dynamics there were three levels of dynamic and iterative activity. Firstly, stock selection and asset allocation decisions occurred as a series of sequential and iterative steps or tasks. Secondly, the firm, team, individual and immediate decision contexts mediated and moderated the conduct of tasks in the investment process. Thirdly, there was a larger dynamic as these decision processes and contexts interacted to produce information, decision and behaviour consequences leading to financial consequences, feedback and changes.

There were extensive dynamic processes arising at team and individual levels during immediate and ongoing investment decisions. These were driven by **causal conditions** such as ad hoc company, market, other FM, and economic events and by changes in prevailing circumstances. These created a dynamic impulse to structured and routine FM days and to structured investment decision processes (such as stock selection and asset allocation). These created a dynamic and iterative dimension to their constituent investment tasks of interpretation, new information and ‘mosaic’ production, judgment, and investment decision actions, followed by observed consequences and feedback. Further dynamics arose during this working day and in the execution of investment decision procedures through the ongoing informal ‘conversations’ and formal communications between many individuals, and within investment teams and the wider FM firm. These ‘conversations’ concerned, inter alia, current circumstances, companies, markets and economies and their future prospects. They formed a continuous ‘live’ context for ongoing interpretation, information production and actions, set within structured investment decision procedures. Individual and team sense making and creativity processes were at the heart of these ‘conversations’ and routine procedures. These interacted with ongoing external stimuli, external interactions with analysts and others, and this led to dynamic changes in the information and action agenda, the task order of the day and the order in which key investment tasks were completed. Creativity in individuals and teams involved exploiting supportive contextual factors at firm and team levels (such as strong research orientation, adaptive external information sources, work incentives, time to think, valuation of creative efforts etc) as well as the unique characteristics of individuals (open mindedness, imaginative etc).

These dynamics at team and individual level were mediated, ‘organised’, directed and ‘excited’ (further stimulated) by the top management (strategic) context and the larger FM organisational contextual factors or priors. Sense making, interpretation, functional information production, and creative information production at the level of individuals and teams were influenced by top management factors and by FM organisational or firm wide contextual factors. External stimuli in the form of events, news, and messages arising in ‘investment society’ and the wider environment were sensed and made sense of. Their meaning was cognitively and socially constructed by individuals operating in teams, in FM firms, and in external networks and social environments.

High strengths (weaknesses) in the **properties** of the strategic context and the FM organisational context (P4), interacted with high strengths (weaknesses) in the **properties** of the FM team context (P2), personal contexts (P1), and immediate decision contexts (P3), to create conditions for excellent (poor) production of novel information, to avoid (make) behavioural errors, to improve (impede) judgment capabilities in decision making, to marginally improve (weaken) the chances of being correct, and to achieve high (poor) financial performance in funds being managed. Those FMs with relative peer group strengths in these areas were expected to outperform other weaker peer group funds. Professional FMs, with peer group strengths in these areas, were expected to counter behavioural errors and to produce novel information and performance in a superior way to individual investors not operating in an organisational and team context.

These firm level factors and individual/team factors all purposefully interacted as a collective and integrated FM organisational and individual means to enhance the **capabilities** of FM **individuals and teams** to focus the analysis, to reduce the complexity of new information flows, to find new ideas, and to ‘make sense’ of this information. They were perceived to be the means to find the information that other FMs and professional information producers could find, and to find novel and valuable information no-one else could find. The combined elements (as knowledge intensive priors built into FM firm, team and individual contexts) were the interactive means for FMs as individuals and teams to exploit their own knowledge, to avoid their own negative behaviour (such as overconfidence, hubris etc), and to exploit the behaviour of others, to perceive value and manage risk. They were able to do this in a superior way to individual investors not operating in an organisational and team context.
These enhanced the capabilities of individuals and teams to take investment decisions (X3), control own behaviour (X2) and to create portfolios with the desired characteristics (Y1). These factors all combined in a purposeful and dynamic way to enhance the capabilities of the individuals and team to achieve the FM performance numbers expected or promised in each specific fund (product, mandate) and in the FM firm and to attract fee earning funds into the fund (Y1). The firm enhanced and controlled individuals (and teams) and the individual (and teams) exploited the firm.

**Investment decision consequences.**
The FM value creation process (X within P), the continuous disclosure and other interactions (X4) with investee companies and with stock and information markets, and ongoing investment decision making at individual and team level (X1, X2, X3), led to changes in FM portfolios (Y), in funds flow, and to perceived changes in states in external markets (Y2, Y3, Y4) and relationships. FMs perceived two related outcomes arising, in part, from their actions. These were fund manager portfolio outcomes (composition, and levels/flows of funds) and performance states (Y1). They were also market outcomes such as understanding and confidence states about each FM in the market for information (Y2), and in the market for savings and investment (Y3). Change in stock markets (Y4) arose from company and economic events but were also driven by FM investment actions and by FM disclosure (financial statements and narrative). These states were the outcomes of the fund manager information production process (X1), other investment actions (X2, X3) and external interactions (X4).

**There were longer term knowledge creation dynamics in FMs.** Learning and knowledge creation occurred at individual, team, and firm levels during ongoing investment action. This led to the creation of adapted priors (P) or contexts and decision capabilities (X). Learning arose in individuals during investment processes and decision action, with this learning occurring in (and being modified by) team and organisational contexts, and wider economic circumstances. Psychological characteristics of individuals were modified by learning. Learning arose through many successful and unsuccessful FM investment decisions and portfolio FP outcomes. It arose from FM strategy, strategic promises, disclosure and execution, as well as through weaknesses, errors, shocks, and crisis. Feedback from FM performance and from markets and companies stimulated learning and knowledge creation. Much knowledge exchange and formalisation took place between these individual, team and organisational levels during ongoing decision making. Existing knowledge embodied in team and organisational structure and process played a central role in learning and knowledge creation by individuals. The learning and knowledge creation created conditions for strategic analysis and choice about knowledge based resources. Top management played a key role in identifying new knowledge resources, in developing them further, in protecting them, in transmitting and deploying them to many different FM teams and individuals. Top management initiated processes by which parts of individual and team knowledge were formalised during periodic reviews. Thus periodic reviews were the basis to ask; What have we learnt? What do we know? What do we need to know? FM top management and board used such reviews to take strategic decisions about key properties or resources at firm, team, individual levels relative to FM investment philosophy, aims, and investment universe. Strategic choices were made to invest ‘just enough’ in new knowledge based resources such as improved research capabilities, staff training, new staff, and new commercial data bases. These were intended to marginally improve strengths and marginally reduce weaknesses (in properties of contexts) to improve the relative competitive position of the FM firm, its teams and individuals in their peer group of FMs. They were intended to marginally alter the investment odds in their favour. This was considered ‘just enough’ to generate the desired over performance. Mistakes as well as successes could be made in these strategic choices depending on the quality of top management. If successful, the new resources became new priors in the form of wider, more explicit FM firm wide knowledge about decision making, markets and companies and about organisational properties such as order, matching, creativity etc. The interaction and learning created new knowledge intensive priors (for individuals, teams, the immediate decision context, and firm wide) of FM investment decision behaviour. These then became the drivers of or priors for subsequent investment decisions.

**Variation in FM firm context - philosophy, beliefs, and type of FM.**
The FM contextual elements and dynamic interactions were common empirical patterns across case FMs. Variation in context and properties were used to tentatively explain, in part, FMs type or style. Variation in strength (weaknesses) of properties (within a fund type or peer group) were used to tentatively explain, in part, differences in performance. FM type or style differences were driven by variation in key parts of the strategic context, especially the FM ‘world view’, philosophy and beliefs about company value creation, market valuation, and degree of desired FM firm control over teams and individuals. A key source of variation lay in shared beliefs within the FM firm about market efficiency and sources of special information. Further variation in the ‘information advantage’ group arose due to variation in beliefs about where the special information niches arose. Other more objective factors such as FM size, national origin, and parent, played a role in FM contextual variety. Weaknesses and negative behaviour arose in the properties of context and process elements in FM. The subsequent negative interactions were a basis for underperformance and failure. The many possibilities here reveal how difficult it is for FMs (team, firm) to organise their investment operations to overcome weaknesses. This provides some explanation of why so much of FM involves competitive disadvantage, underperformance and failure rather than success.
Variation in contextual factors and their properties leads to FM style or type differences

Variation in strengths/weaknesses of properties, in a peer group, leads to performance differences

Figure 1 Empirical Pattern and Dynamic interactions in FM
In diagram 1 the full set of interactions and outcomes are illustrated where $Y_1 = f(P, S, X)$

We can summarise key implicit equations in this diagram as follows.

- **Purposeful Investment Actions (X3)** were functions, inter alia of:
  - Stimuli (S), Priors (P) or Properties of 5 Contexts, New information (X1), Behaviour (X2), and Interactions (X4)

- **Portfolio outcomes and states (Y1)**, were functions, inter alia of:
  - Stimuli (S), Priors (P) or Properties of 5 Contexts, New information (X1), Behaviour (X2), Investment actions (X3), and Interactions (X4) as well as independent market asset pricing mechanisms.

- **External environment or market states (Y2, Y3, Y4)**, were functions, inter alia of:
  - (Y1) and Behaviour (X2), Investment actions (X3), Interactions (X4), and perceived priors (P)
  - as well as independent market asset pricing mechanisms

- **Priors (P) or the properties of the 4 contexts** were a function, inter alia, of feedback an FM learning over time about all of the above. Thus $P = \text{function learning (S,X,Y)}$

**Where**

$P = \text{priors} = \text{current properties or states of internal (P5) & internal (P4) organisational contexts, of individuals (P1), teams (P2), of decision context (P3)}$

- $P1 = \text{Knowledge and Psychology priors of individuals,}$
- $P2 = \text{Shared knowledge, communication priors of teams}$
- $P3 = \text{Immediate decision context}$
- $P4 = \text{Strategic context = philosophy, beliefs, policy, quality of top management etc}$
- $P4 = \text{Organisational context = organisational properties of order, coherence, matching creativity & their strengths & their knowledge priors or properties}$

$X1 = \text{capability of individuals and teams to create new information}$

$X1 = \text{capability of individuals and teams to control own behaviour}$

$X3 = \text{investment actions}$

$X4 = \text{interactions between FMs and their external world, and FM disclosure to markets}$

(as financial statements and narrative about P, X, and Y)

$Y1 = \text{Perceived portfolio characteristics and performance relative to aims}$

Persistence In Success Rate SL & AL

Improve & Achieve Potential Portfolio return

Reduce & Achieve Potential variance of portfolio return?

Consistency in return =Beta?

Creative =Alpha?

$Y2 = \text{External states, changes in, investment society & the ‘market for information’}$

$Y3 = \text{States, change in states in the market for savings and investment}$

$Y4 = \text{States, change in states in the stock market}$

$FM\text{ Style = function (Common set of contextual factors and their properties in a group of FMs)}$

Relative FM financial performance = function ($Y1 = f(P, S, X)$

in a peer group and Variation in strengths/weaknesses of properties, in a peer group)
5. Outline of the analytic frame used in the paper

In section 5, a brief overview (peek) is provided of the analytic framework used to interpret the empirical patterns in fund management. This analytic framework is based on a set of relevant theories and literature relevant to the FM phenomena. These are used in sections 6 to 10 to interpret the specific elements of the grounded theory. In section 11, they are used to interpret the overall grounded theory model.

Theory was used to explain the ongoing dynamics of immediate decision actions by individuals and teams. FM investment decision making process was explored as both a goal seeking structured task sequence (Cyert and March, 1963) and as a process of sense making (Weick, 1979). The two views of process revealed different but related means to cope and reduce the uncertainty associated with equity investments (Hellman, p236, 2000) and to find new information and investments of value. Informal ‘conversations’ and formal communications were important aspects of FM decision processes. Gratton (2002) and Weick (1998) note their role in recognising and solving problems, and making novel associations and connections. Creativity was an important part of FM investment decision making process and was built on prior order to develop creative properties to their decision processes and contexts (Nonaka & Toyama, (2005), Ford and Gioia (2000)). Simon’s (1957) ideas and the ‘behavioural theory of the firm’ (Cyert and March, 1963) were used to interpret FM firm and team behaviour. Developments in ‘behavioral finance’ (Shefrin and Statman, (1985), Tversky and Kahneman (1992)) were used to explore FM investment decision behaviour (by individuals and teams) in markets.

Theory was also used to explain the longer term dynamics of feedback, learning, knowledge creation, and new priors. The nature of the wider institutional setting and changes were important influences on FM learning about the firm, teams and individuals. These were interpreted as evolutionary (Nelson and Winter 1982) responses to uncertainty developed in a common institutional setting (Scott and Meyer, 1994; Scott, 2001). This external context to each FM also included established or prior knowledge in the wider professional and academic communities (or investment society). FM active learning (Pedler et al (1997) and knowledge creation (Nonaka, Toyama, 2005) aided the development of strategic resources. Learning was not enough. FM top management and board strategic decisions and actions were critical to the choice, development of key properties or resources relative to FM investment philosophy, aims, and investment universe. Strategic choices were made to ‘satisfice’ (Simon 1957) or invest ‘just enough’ in new knowledge based resources. This was consistent with the resource base view of the firm (RBV) (Fahy, 2000). FM specific knowledge (defined as intellectual capital, Meritum, 2002) and other properties or resources were recognised to be at the heart of FM sustainable competitive advantages and relative success and failure. The Resource Based view (RBV) of the firm (Barney, 1970, Clulow et al 2003) and Teece, 2007) was used to interpret the role of resources such as knowledge in dynamic FM competitive advantage and subsequent decision behaviour.

6. Context and process in investment decision making

Section 6 outlines the role of internal and external context (or priors) in investment decision making process and actions. The wider role of knowledge in these contexts (and about these contexts) and of order in the contexts were also important to decision actions and process. Literature by authors such as Nonaka and Toyama (2005), Nelson and Winter (1982), Scott and Meyer (1994) are used to explore these contextual issues.

Active Fund managers (FMs) (across a range of FM style or peer groups) faced major problems of informational search and estimation when making investment decisions such as stock selection and asset allocation under uncertainty. Active FMs shared fundamental beliefs about imperfections in markets and believed that their superior skills were the means to succeed in investment decisions. The FM field research revealed that the active FMs sought structured, adaptive and creative decision responses to their problems of economic and financial uncertainty. These purposeful decision processes were conducted within knowledge intensive internal and external contexts in part ‘owned’ as intangible assets by FMs as individuals, teams and firms.

As a result various contexts or priors (P1 to P5) played a central role in investment decision making process and actions. Individual FM properties or characteristics such as personal knowledge (know how or experience), psychological characteristics (such as levels of confidence (over, under)), and personal job incentives, were the basis for a personal context or priors (P1) for sense making, information production and investment actions. The team context (P2) reflected the sum of the personal contexts of individuals. Team properties reflected the degree of organisation for team interactions, for high quality exchanges of information and for joint production of information (ie ‘conversations’), and of means for reaching consensus decisions or for allowing individual choice. This team context was also influenced by factors such as shared pay or incentive schemes, variety of skills, experience and psychological outlooks, and many other factors. The team context also reflected the layout of the FM team room to ensure they were all close together on one floor or physical space. The immediate
decision context (P3) included, routine investment decision processes and controls and thus the core information production, decision making and action processes. It included the starting (current) financial positions for the funds and changes in these. It was the main focus for decision making action and fund outcomes. Key properties here included the degree of structure of routines, tasks and working days. FM organisational context and properties were major influences on individuals and teams in their personal and team contexts and the immediate decision context and process. The FM top management (or strategic) context (P4) included many hierarchical and operational elements such as investment philosophy and policy. The organisational context (P4) contained organisational structure and process and many hierarchical elements. The organisational context had major properties of order, coherence, matching and creativity. The difference between professional investors in FM firms and the individual investor of ‘behavioural finance’ lies in the impact of P2, P3, P4 and firm knowledge on the former and their absence for the latter. Both types of investor experience their own P1 and the strong influence of market contexts (P5).

Theoretical analysis of context in FM.

Nonaka and Toyama’s (2005) in their ‘theory of the knowledge creating firm’ and concept of ‘Ba’ argue that sharing context (including experience, memory, past history) is essential for decision making and knowledge creation. ‘Ba’ is a dynamic place or context inside and outside of organisations where one shares a context with others to create meanings. Without context to specify time, place, and relationship with others, knowledge becomes just information. Ba is the inter-subjective space-time where meaning is created through dialogues and practice. In the case FMs, the internal and external contextual order, prior knowledge and associated interactions were interpreted as ‘Ba’. These were ‘harbours’ for creating meaning, new information and knowledge about companies, other investors and market behaviour. FM internal structures and routines were ‘Ba’s’ or internal contexts in motion that harboured meaning. FMs interacted with their external network of investee companies, normally through 1:1 meetings and telephone discussions. Internal decision routines and structure were a form of internal order and structural capital (Meritum, 2002). Networks (of company and analysts and other contacts and relationships) and processes were forms of external order and relational capital (Meritum 2002). These forms of order and intellectual capital were evolutionary (Nelson & Winter 1982) responses to uncertainty. External order and common external processes with companies (as well as interactions with analysts, trustees, savers and others) were also interpreted as external ‘Ba’. Much new information arose for FMs during interactions at internal and external ‘Ba’. Prior FM knowledge and experience about company value creation processes and market processes were central to directing this search for information. ‘Prior knowledge’ was also a key context influencing knowledge creation in FM. ‘Prior knowledge’ in the FM (at firm, team, individual levels) was also a form of ‘Ba’ and was part of internal and external Ba order. The ‘Ba’ experiences and internal and external locations were places where new knowledge was created, shared and exploited. As a result, knowledge creation took place in relations between people. Knowledge could only be created by specifying context (time, space and relationships). The FM knowledge creating behaviour suggested that the FMs either sought completely new knowledge or they developed variations of established knowledge. Internal and external order or ‘Ba’ and associated interactions were places for meaning and information production, knowledge creation and investment decision making. In addition, they were places for influence over corporate disclosure and other information suppliers. They were also places for the conduct of accountability processes between the FMs and their investee companies, and between FMs and trustees or savers (Holland, 2011)

Theoretical discussion of the role of contextual properties of FM organisation, teams, and individuals.

The grounded theory of FM reveals that the existence of key context and process elements, their properties and their relative strengths, were essential for FM success. The grounded theory also reveals that FM knowledge was major property of contexts and dynamic process. FM knowledge was also a key ingredient in the other properties of context and process and their strengths. The grounded theory predicts that the higher the relative strengths of properties of FM firm organisation contexts and process (internal and external contexts and their properties of order coherence, matching and creativity), and the higher the strengths of properties of team and individual contexts, then the higher the expected mediation and moderation effects of context during decision making (by individuals and teams) and the higher the quality of information expected to be produced. This was expected to slightly alter the investment odds in FM favour, produce portfolios robust across a range of circumstances, and to produce expected superior performance. Knowledge was the key to ensure that other organisational, team and individual properties [such as organisational order coherence, matching and creativity, or individual psychology or team communications] were unique, inimitable, valuable, and only appropriable by the FM and hence the source of sustainable competitive advantage (as in the RBV of the firm, Barney et al 1991). Knowledge was everywhere in FM. The grounded theory predicts that the higher the quality of knowledge in organisation, teams and individuals then the higher the expected strengths of other properties at these levels.

The common external and internal FM contexts (organisational, teams and individual), their properties, and relative strengths were interpreted as evolutionary (Nelson & Winter 1982) responses to uncertainty. They were
developed in a common institutional setting (Scott and Meyer, 1994; Scott, 2001) and provided a firm specific focus for interpretation of events and production of new information. They were part of the FMs organizing of their world and they were also part of being organized by prior structures and prevailing ideas in their institutional settings (Giddens, 1984). Holland et al (2011) illustrates how these were the result of long term FM learning and knowledge creation processes. FM Board and top management made strategic choices to deal with (long term) threats to organizational stability and internal order (Laughlin, 1991) and competitive threats. These threats to stability included, inter alia, declining performance and long term market change such as globalisation, changing performance measures, and changing client preferences for investment styles. These constituted threats to traditional (national based and simple) FMs and their organisational form and internal and external order.

6.1 The external context to FM

The external contexts for investment decisions consisted of the wider social, political, economic environment of Finance and Investment. It also included the more immediate ‘investment society’ or external places for investment action and for funding supply. Investment opportunities, constraints and FM performance contracts arose in this investment society. This was where the FM chose its preferred information niche, investment and risk universe. This was where it thought it could understand how value was created and where it believed it could deliver performance. Clients, savers, Consultants, FM rating agencies, analysts, other FMs and investors, financial media, and regulators were a group of external actors that operated in common networks and shared markets in which they exchanged information. Various forms of order or organisation arose in the FM external environment including external ‘networks’, relationships and various connected ‘chains’ of accountability, investment and disclosure. Stable FM (specific) external networks and relations within wider external order were important FM response means. The structured environment included funding and investment markets, and their associated information markets. The external context also included established prior knowledge in the wider professional and academic communities (investment society). This included professional knowledge (such as the ‘5Ps of investment’) and academic knowledge on how markets worked (EMH, MPT, CAPM, behavioural finance etc), how to value companies (NPV, strategic option pricing etc), and knowledge on how companies created value (eg RBV or Porter 5 forces etc)).

6.2 Internal FM contexts for decision making processes - learnt priors and their properties

The internal context of FMs consisted, inter alia, of an organisational context, a team context, a personal context, and a decision context. The wider role of knowledge in the internal contexts was also important.

The firm wide context was manifest through strategic and organisational contexts, their various elements and their properties.

The internal FM strategic context (as part of common internal FM order) was manifest at a strategic level as FM philosophy, FM top management and board knowledge and capabilities, core beliefs, shared values and aims, FM objectives and strategic choice. These strategic elements influenced decisions on investment policy or risk return preferences (as an additional context) and investment products, and choices on preferred information niches, and investment and risk universe to match policy. Strategic context gave clear purpose to investment decisions. This was the one of the primary contextual driver of differences in FM style or type.

The common internal FM order present in the FMs (across peer groups) was also manifest within the organisational context. The internal organisational context included the FM internal organisational structure and hierarchy or internal places for investment action. Firm level and fund level objectives were part of this context. It involved formal investment decision processes set within formal organisational structure. At operational levels, it also included ‘front office’ layout and highly disciplined ‘back office’ support functions and IT infrastructure to provide operational support to investment decisions. This also consisted inter alia, of formal control and communication systems, and standard risk control technology. This operational context provided order and predictable form to the investment decision process and day. These supported and enhanced the internal behaviour advantage of teams and individuals.

Considerable order was present in these strategic and organisational contexts. Other properties of these organisation elements including properties of coherence, and matching were present in hierarchy, organisational structure and team structures.

Coherence factors were key properties of internal context by linking strategic context to operational context. Coherence or integration factors in FM firms included categories such as the degree of co-ordination or linkage between key strategic intangibles such FM philosophy and knowledge, culture (as core beliefs, shared values) and shared aims (purpose). It also included their links of key strategic factors to operational areas such as risk control and ongoing investment decision making in teams and individuals. FM firm culture in the form of shared beliefs (about companies, markets and the FM)
and value, and common norms of behaviour in the FM (eg focus on the client), were at the heart of coherence. They were normally achieved by training and socialisation, and by top management leaderships.

**Matching** factors were key properties of internal and external context linking strategic context to external context. FM order involved the perceived match of key elements (such as FM philosophy, structure and process, as key intangibles), and their properties (such as knowledge, order, coherence, and creativity) to FM risks taken (and chosen information niche, investment universe and landscape) and to a wide range of potential circumstances for the present and long term.

High strengths of these coherence and matching properties of organisational context focussed FM attention (specifically that of individual FMs and teams) and FM resources on key aims (firm wide and fund specific), means and decision activities in difficult investing situations. They gave FMs (individual FMs, teams, and management hierarchy) stable ‘shape’ when involved in internal process and during competitive ‘games’ with other FMs in a volatile market environment.

They were the source of many ‘combination’ or joint asset advantages whereby intangibles interacted with other intangibles in an effective way, and intangibles interacted with tangibles in an effective way. For example, strengths of coherence properties meant top management human capital was effective in influencing individual FM and team human capital, motives and capabilities. Strengths of coherence meant that various forms of intellectual capital in teams and individuals were effective in attracting funds and making financial investment. Strengths of matching properties meant that human capital of individuals and teams was appropriate and robust relative to a range of circumstances in markets and economies over many cycles.

**Team, individual and immediate decision contexts for ongoing decision making action and processes**

**Individual FM properties and their strengths created a personal context for action – this was supported by FM firm and team contextual factors.** Individual FM characteristics such as personal knowledge (know how or experience), psychological characteristics (such as levels of confidence (over, under)), and personal job incentives were a function of individual traits as well as characteristics of their FM team and FM organisational context.

Changes in these were a function of historic information production, action, consequences, feedback, and learning over time, which created new personal priors, which in turn influenced future decision making

The individual properties or characteristics (knowledge, confidence, and incentives) set up a **personal context** or priors for new sense making, for interpretation of new information and events, for new information production and for investment actions followed by performance consequences.

High strengths of properties of the individual contexts contributed to FM success. Individuals with high ‘knowledge of oneself’ or knowledge of own psychological traits, with experience of many cycles (circumstances) and operating in FMs firms and in teams with much knowledge of potential behavioural mistakes, and with formal review processes for teams and individuals were expected to have lower levels of overconfidence than investors operating as individuals alone outside of FM firms. Thus FM firm knowledge buttressed individual knowledge in controlling potential behavioural errors. As personal knowledge increased, then the likelihood of overconfidence errors could fall, and performance could improve.

New FM individuals with little experience, and short duration in the FM firm and industry, were likely to driven by their unchanged psychological traits which could lead to sub optimum over or under confidence etc. If they operated in FM teams and firms with poor personal evaluation and feedback systems, then psychological and knowledge errors in investment decisions were likely.

Such psychological traits and states (such as overconfidence and associated mistaken risk taking) at the level of individuals were also mediated by FM firm investment policy. For example, overconfidence was expected to reduce as one moved from hedge to growth, to value to index funds. The FM firm policy for job security and pay, and FM policy on degree of autonomy for individuals and teams, were similar contextual factors which further altered the individual experience. As incentives became riskier and autonomy increased the likelihood of overconfidence errors by individuals could rise, and performance could decline.

The private, (internal, learnt and adjusted) levels of confidence of FM individuals and teams about a fund may be different to the FM firm publicly expressed levels of confidence about a fund. The private version may be adjusted to reflect internal mediation using prior knowledge and effect actual investment decisions. The public version may be presented in more positive light in the public domain as a marketing means to encourage flows into the funds. Marketing control over public disclosure may mean that many other personal FM characteristics (‘stars’ knowledge, capability, judgement etc) are ‘over promoted’ in the public domain.
Team FM properties and their strengths created a team context for action – this was supported by FM firm contextual factors

The team context reflected the sum of the personal contexts of individuals and their individual knowledge, skills, experience, and psychological states or tendencies (say overconfidence). The properties of the team context reflected the degree of organisation of team interactions, for high quality exchanges of information and for joint production of information (ie ensure active ‘conversations’ in the team), and for means for reaching consensus decisions or for allowing individual choice. This team context (and its properties and strengths) was also influenced by factors such as the degree of shared pay and other incentive schemes, variety of skills, experience and psychological outlooks, degree of hierarchy and control and many other factors. The team context reflected the layout of the FM team room to ensure they were all close together on one floor or physical space. The team context also reflected formal meetings, Thus the nature of weekly and cyclic meetings, with clear information exchange and decision purposes, with formal information exchange arrangements between geographic and sector teams or specialists, all effected the context and operations of teams.

High strengths of properties of the team contexts contributed to FM success. Teams with high quality ‘conversation’ and decision consensus capabilities, shared knowledge, a range of individual psychologies, broad skills and experiences, with shared experiences of many cycles (circumstances), with formal review processes for teams and individuals were expected to have higher quality information production and lower levels of overconfidence than fund managers operating as individuals alone in FM firms. As team factors increased in strength, then the likelihood of the use of poor information and of overconfidence errors could fall, and performance could improve.

The immediate FM decision context was the world of ongoing action.

The world of ingoing action focussed on stimuli, interpretation, new information production, judgment, investment decision actions, consequences and feedback. The more immediate investment decision context and fund context included, routine investment decision processes and controls and thus the core information production, decision making and action processes. It included the starting (current) financial positions for the funds. It was the main focus for decision making action and fund outcomes.

Routine investment decision processes, set in internal and external contexts, were in the form of structured stock selection and asset allocation processes with well defined tasks or phases in sequence. During investment decision making, such as stock selection (SL) or asset allocation (AL), the FMs typically followed a sequence of steps such as active search (driven by FM philosophy and policy), external stimuli, and screening of companies, sectors, and external information. This was followed by information production, interpretation, FM estimation processes, valuation, mosaic formation, assessment of whether an FM advantage existed, all leading to investment decision actions. These were followed by consequences (portfolio outcomes, performance etc) and feedback. Routine also involved the predictable structure of part of the working day and of formal meetings and communications.

For example, during routine and structured decisions, FMs (teams and individuals) used the information created during screening and analysis to test and evaluate investment alternatives (at stock, and portfolio levels) often in the simple form of hypothesis and counter hypothesis, These were assessed against ‘just enough’ information within FM own theory, criteria, heuristics, categories or themes etc. They employed fundamental analysis relative to assumptions of a near efficient market. The case FMs employed subjective analysis when interpreting the behaviour of investors, the market, investee companies, and their own behaviour and emotions. They ‘weighed’ their objective and subjective views. This information processing led to enhanced FM understanding, meaning and confidence in the FM ‘mosaic’ about company value creation and in the identification of ‘nuggets’ of value relevant information. This in turn created the conditions for choice between the merits of the competing hypotheses and for immediate or deferred investment action and behaviour.

Major properties of the immediate decision context included the degree of structure and the flexibility of investment decision routines, tasks, and the working day. It included the formality of risk controls. High strengths of properties of the immediate decision contexts contributed to FM success. FM teams and individuals operating in immediate decision contexts with high clarity about investment decision routines, tasks and risk controls, flexibility in the face of change, and rapid response capabilities were expected to have higher quality information production and decision making capabilities than those teams and individuals without these strengths.

The (actual) investment decision processes occurred within the internal contexts (of organisation, team, individual, and immediate decision contexts) and within the more immediate external context of ‘investment society and markets’ and the chosen information niches, and investment and risk universe. These contexts mediated external stimuli, sense making and meaning creation about new information, actions and behaviour. These investment decision processes also occurred within a wider ‘context’ of the macro economic, social and political world, which ‘moderated’ the processes and more immediate contextual influences.
6.3 FM knowledge as a key dimension of contexts (organizational, teams, and individuals) and process, their properties and strengths

The central role of knowledge – as a major decision context at individual, team and firm levels
FM firms had little in the way of physical or tangibles assets and their core functions and competitive advantage were based primarily on knowledge intensive intangible assets and capabilities at firm, team and individual levels. Thus extensive knowledge use, as well as implicit knowledge creation and knowledge management was often at the heart of ongoing FM investment activities. **FM Knowledge was key property in its own right and was part of other properties of FM organisation, teams, and individual contexts.** Much knowledge, inter alia, of the environment, investment society, markets, corporate value creation, and of investment process, was employed by FMs (individuals and teams) during their investment decisions in specific funds under management.

Knowledge was ‘owned’ by FMs as individuals, teams and firms and was central to other properties.
The knowledge of internal and external contexts was in part ‘owned’ as intangible assets by FMs as individuals, teams and firms. This can be interpreted as human, structural and relational forms of intellectual capital (Meritum, 2002). Such knowledge existed as cognitive states in individuals, as explicit and implicit properties of the capabilities of individuals and team, as properties of FM context and process, and as formal FM firm knowledge about such knowledge and how to use it. The knowledge existed formally in the case FM firms' training manuals and information systems. Such knowledge existed as formal FM firm 'knowledge about knowledge' and how to use it. It existed informally in the minds, experience and cognitive skills of individual FMs and external parties, as well as being shared and used within dynamic team decision processes. This knowledge was shared at various levels, with say top management skills and experience of many cycles transmitted to teams and individuals managing funds. This extended the skills of teams and individuals and enhanced their capabilities to take investment decisions. Thus human capital in the hierarchy and structural capital in the firm, influenced human capital in teams and individuals, and eventually fund performance. Thus knowledge was a key property of individuals and teams as well as the firm or organisation.

FM firm wide knowledge was central to properties of organisational context and process. It was central to order (in organisation, network and process), to ‘coherence’ and ‘matching’ properties. Creativity was based on knowledge about organisational context, process, teams and individuals. Knowledge was the basis for each property to exist and to function. High strength of a property such as order or creativity was based in part on its knowledge characteristics such as uniqueness, being valuable, being difficult to copy, and high FM ability to exploit, all relative to competition from other FMs in the FM’s peer group.

FMs (as individuals, teams) could exploit the desirable characteristics of FM wide knowledge via FM organisation in the form of the other properties (order, coherence, matching) and strengths of FM context and process. These were central to FM success. They formed the key contextual and process drivers of financial performance and were important means for the achievement of SWM and ESG aims. FM firm knowledge buttressed individual and team knowledge and played a role in controlling potential behavioural errors. Thus knowledge was at the core of FM sustainable competitive advantages and relative success and failure.

What was knowledge in FM?
Individual and team knowledge in FMs included individual and team variants of firm wide theories of markets (pricing, behaviour) and of company value creation. It also included knowledge of psychology and behaviour of individuals in the teams and of external market investors. It included individual and shared knowledge of market of communications and decision making by individuals and teams. Much knowledge, inter alia, of the environment, investment society, markets, corporate value creation, and of investment process, was employed by FMs during their investment decisions. This knowledge was developed in the case FMs during the investment decision making (routine and creative) process and longer term learning (Holland, 2010). The FM as a ‘learning organisation’ and knowledge creating firm is discussed in more detail in Holland et al (2011).
FM own Knowledge (assets) took many forms in internal and external contexts (see Table 1).

Table 1 - What was FM knowledge? For example,

- In internal decision domains it included knowledge of:
  - Organisation, and process, stock and portfolio decisions,
  - Risk management, risk controls
  - Behavior (judgment & ability, risk taking, confidence levels–own, others) in investment decisions
  - Routine decision making processes
  - Creative processes in investment decisions
- In external decision domains such as the world of companies and stock market, and the world of saving and investment services
  - It included knowledge of markets, companies, savers, stakeholders, such as
  - FM theory of investee company value creation in competitive markets, and of the factors (Economic, Social, Political) affecting corporate value creation.
  - FM knowledge of corporate financial accounting, financial reporting and other disclosure forms and content and how these related to company value and the underlying business model of the firm.
  - FM theory of market processing of information and of behaviour of other investors
  - FM Theories of stock market price behaviour and about price regularities In stock market
- This knowledge was ‘local’ to each FM and in many cases was influenced by established prior knowledge in the wider professional and academic communities (see above)
- The FM specific knowledge could be a variant of established prior knowledge in ‘investment society’ with the variation driven by the specific philosophy, beliefs and aims of different (style, activity) types of each FM.
- It could be knowledge unique to a FM based on its own learning and knowledge creation over time.

External order in saving and investment markets, in the form of reputation, brand names and relations, were key knowledge based intangibles for FMs. Unique knowledge of own brands, reputation and relations in networks and markets etc and of how to manage these, was central. This order and knowledge were important for financial firms such as FMs in that they could promote loyalty and help FM firms to attract customers and funds from competitors (Clulow et al., 2003). Unique capabilities also included strong relationships with core investee companies, with clients or investors, and strong brands and marketing skills.

According to the Meritum model (2001, p. 63), these many types of FM knowledge can be formally classified as forms of intellectual capital. The Meritum model and the developing literature on intellectual capital (IC) attempts to categorise and develop a holistic view of major types of knowledge as value-creating resources used within the firm and its markets. In this model of FM, human capital was interpreted as decision process knowledge, structural capital as internal context knowledge, and relational capital as external context knowledge.

"Human capital includes the knowledge, skills, experiences and ability of people.” Meritum model (2001, p. 63). The FM contained much in the way of human capital present and used in investment processes. “Structural capital comprises the organizational routines, procedures, systems, cultures, databases, etc.” Meritum model (2001, p. 63).

The FMs incorporated much structural knowledge (SC) in their internal context. Such SC included the tacit and formal knowledge embodied in FM organization structure, hierarchy, technology, and control regimes. “Relational capital ...comprises that part of Human and Structural Capital involved with the companies relations with investee companies and own clients plus the perceptions that they hold about the company” Meritum model (2001, p. 63). The FMs ‘owned’ much Relational and market capital (RC) in their external context. For example RC consisted of FM reputation for story telling, promise making and delivery of performance, as well as Track Record, and Brand recognition.
7. Dynamics of immediate decision making -Action, behaviour, process in FMs

Section 7 explores action, behaviour and process in investment decision making by individuals and teams in an organisational setting. It focuses on the purposeful dynamics of the immediate decision context involving individuals and teams in FM firms, and explores how these dynamics at team and individual level were mediated by larger FM organisational or firm wide contextual factors. Key literature by many authors such as Weick (1979) and Cyert and March (1963) are used to explain this empirical phenomena concerning the world of action and behaviour in FMs.

During the ongoing investment decision dynamics there were three levels of dynamic and iterative activity. Firstly, stock selection and asset allocation decisions occurred as a series of sequential and iterative steps or tasks. Secondly, the firm, team, individual and immediate decision contexts mediated and moderated the conduct of tasks in the investment process. Thirdly, there was a larger dynamic as these decision processes and contexts interacted to produce information, decision and behaviour consequences leading to financial consequences, feedback and changes.

Investment decision making and action

Section 6 has explained the routine nature of investment decision task and processes. However, routine investment decision processes elements were highly structured and also interactive, dynamic and iterative in nature. Thus the routine sequence and priority of tasks, meetings and the day could vary with circumstances. These routine and iterative processes were involved in information production, investment decision making, risk management, and return generation, with many dynamic interactions between them.

The dynamic nature of investment decision making process in the case FMs was interpreted in two related ways. Firstly as goal seeking, routine investment decision process with a structured task sequence (employing fundamental analysis) set in an organisational context (Cyert and March, 1963). Secondly, as a process of sense making (Weick, 1979) and of interpretation. These occurred together as one dynamic process as FMs (individuals and teams) exploited and were influenced by a common FM organisational context and its properties of knowledge, order, matching, and coherence and their relative strengths.

Investment routines were stable and established conceptual frames and means to conduct investment decision tasks in sequence to select stocks and choose portfolios. FM sense making by individuals and teams was based on purposeful exploitation of the properties (and relative strengths) to FM firm decision context and process and of the properties to team and individual contexts.

Both the routine task sequence and sense making reveal different but related insights into the same phenomena of the inductive, iterative, pattern seeking cycle evident in actual FM decision making. The first provides insights into the order dimension of decisions and the second builds on this order to reveal more about interpretation of information and meaning creation within such a set of tasks. The sequential and ordered set of tasks provided the frame for continuous sense making. The structured fundamental analysis at stock or portfolio level occurred simultaneously with sense making. The latter much influenced (enhanced, altered decision timing and task sequence etc) the structured fundamental analysis and final stock and portfolio decisions. Both were joint dynamic means to cope with and reduce the uncertainty associated with equity investments (Hellman, p236, 2000) and to find new information and investments of value. Routine FM stock selection decision processes had similar structural features to those found by Bouwman, Frishkoff, and Frishkoff, P (1987, 1995) for financial analysts and those found by Holland and Doran (1998) and Holland (2006) for FMs. The joint use of structured fundamental analysis and of ‘sense making’ reflects the resource based view of the firm (RBV) (Barney, 1991).

Dynamic processes in investment decision making

There were extensive dynamic processes arising at team and individual levels during the immediate and ongoing investment decisions. These were driven by causal conditions such as ad hoc company, market, other FM, and economic events and by changes in prevailing circumstances. These created a dynamic impulse to structured and routine FM days and to (goal seeking, Cyert and March, 1963) structured investment decision processes (such as stock selection and asset allocation). These created a dynamic and iterative dimension to their constituent investment tasks of sense making (Weick, 1979), interpretation, new information and ‘mosaic’ production, judgment, and investment decision actions, followed by observed consequences and feedback.

Further dynamics arose during this FM working day and in the execution of investment decision procedures through the ongoing informal ‘conversations’ and formal communications between many individuals, and within investment teams and the wider FM firm.
Gratton (2002, 2006), notes that active and open conversations in small teams are essential to recognise and solve problems and to exchange knowledge, and to make novel associations and connections. Weick (1998) argues that conversations involve collective improvisation, with people listening to others and to themselves. Such spontaneous interaction and collaborative invention normally take place within existing structures. In FMs these included the formal layout of offices, structured decision routines, personal relationships and many others. In Nonaka and Toyama,( 2005) terms these are ‘Ba’ or places where Ba is a dynamic place where one shares a context with others to create meanings. Without context to specify time, place, and relationship with others, knowledge becomes just information. Ba is the inter-subjective space-time where meaning is created through dialogues and practice.

The ‘conversations’ in FM teams and between teams and other specialists concerned, inter alia, current circumstances, companies, markets and economies and their future prospects. They formed a continuous ‘live’ context for ongoing interpretation, information production and actions, set within structured investment decision procedures. Individual and team sense making and creativity processes were at the heart of these ‘conversations’ and routine procedures. These interacted with ongoing external stimuli, external interactions with analysts and others, and this led to dynamic changes in the information and action agenda, the task order of the day and the order in which key investment tasks were completed.

Creativity, dynamics and FM context
Creativity was an important part of FM conversations, in investment decision making processes and a key factor in the dynamics. The active FMs (top management, teams, and individuals) built on prior organisational order to develop creative properties to their decision processes and contexts. These collective properties and their strengths were the combined organisational means for FMs to marginally alter the odds in their favour and to create investment portfolios expected to be robust across a range of potential circumstances. As a result, creative FM investment decision processes conducted by individuals and teams, like the routines they were based on, were much enhanced and stimulated by the larger FM organizational context and its properties of order, knowledge, coherence and matching. These findings match the findings on creativity and context in the wider organizational literature. As Heuer (p75, 1999) noted ‘new but appropriate ideas are most likely to arise in an organisational climate that nurtures their development and communication’. Ford and Gioia (2000) found both context and decision process were sources of factors that influenced the creativity of managers’ decisions (in commercial firms) and especially the novelty and value dimensions of creativity. Amabile et al. (1996) put forward five dimensions of the work environment, which contribute to the capacity of individuals and groups to be creative. These include supportive organisations, reward systems, supportive supervisors as nurturers of the creative spirit, and in the way that work groups function and value creative effort. They include autonomy and resources for individuals and teams, as well as removal impediment such as rigid structures.

Creativity in FM individuals and teams involved exploiting supportive contextual factors at FM firm and team levels (such as strong research orientation, adaptive external information sources, work incentives, time to think, valuation of creative efforts etc) as well as the unique characteristics of individuals (open mindedness, imaginative etc). Creativity also involved ‘breaking away’ from existing structures, routine processes and established conceptual frames and knowledge (Nonaka & Toyama, (2005), Variation was built into routines, meeting cycles, forms of analysis, into behaviour in teams (challenge culture, scepticism, autonomy), and into the range of experiences and psychological outlooks of individuals. Creative elements were added by varying and adapting the structure of the working day and by encouraging informal conversations and meetings. Each FM sought its own unique balance between routine and creative elements in the pursuit of its aims, depending on its degree of ‘activity’ and its philosophy. There was tension between routine and creativity aims and processes. These factors created the firm, team and individual contextual factors to support creative processes in individuals and teams, and hence the production of novel information not available to other FMs. Creative activity in immediate and ongoing investment decision processes by individuals and teams involved, inter alia, use of, and knowledge of how to use; flexible routines, active and challenging conversations and of ‘positive’ behaviour, and ‘brainstorming’. They involved intense probing of investee companies, pressurizing problem companies and noting their response. They also included a probing external research capability, and ability of individuals and teams to recognize when they were receiving urgent and often stock value significant feedback from stock markets and from the ‘market for information’.

Strengths and weakness (relative to peer groups) in these dynamic processes at team and individual levels were major factors underlying FM team and individual performance and the financial performance of funds managed.

Organising the dynamic process
These dynamics at team and individual level were mediated, ‘organised’, directed and ‘excited’ (further stimulated) by larger FM organisational contextual factors. Sense making, interpretation, functional information production, and creative information production at the level of individuals and teams were influenced by FM organisational or firm wide contextual factors. External stimuli in the form of events, news, and messages arising in ‘investment
society’ and the wider environment were sensed and made sense of. Their meaning was cognitively and socially constructed by individuals operating in teams, in FM firms, and in external networks and social environments.

Weick (1979, 1995) has written extensively on sense making in organisations. According to Weick (1995), ‘Sense making is the search for contexts within (which) small details fit together and make sense… It is a continuous alteration between particulars and explanations, with each cycle giving added form and substance to the other. It is about building confidence as the particulars begin to cohere and as the explanation allows increasingly accurate deductions. (Weick, 1995, p. 133)

Weick’s (2005, p268) ‘search for ideas, tactics, determinants of sense making at a micro level of analysis’ provides a relevant explanatory framework for FM ‘mosaic’ formation and decision making. Sense making in investment decision processes arose within many levels of FMs such as individuals and teams and were supported by organisation context factors context and process, (such as organisational properties of knowledge, order, coherence, matching, creativity), and their relative strengths. These collectively functioned together to aid individuals and teams to generate new information, meaning, and confidence in the above investment decision processes. This led to the building of a new picture or ‘mosaic’ about company value creation and the isolation of ‘nuggets’ of information thought to be value relevant in security markets (Holland, 2006).

In Weick’s terms (1979, 1995) FM organizing was a system of individual, team and organizational behaviours (internal and external). The FM organizations and their key individuals and teams operated in complex and uncertain real business and financial market environments. They faced a vast world of changing events, and news in their universe of information, risk, investee companies and economies. Equivocality, was ubiquitous in the information environment of the FMs and this was a primary source of opportunity as well as problems. The objective of FM organizing was to help individuals and teams make sense of equivocal messages, or messages (internal analysis, external stimuli, events, news) with a multitude of possible meanings, in this information environment (Weick, 1979). sFM sense making by individuals and teams and focussing the investment analysis, were based on purposeful exploitation of prior FM organising in the form of the FM firm properties (of knowledge, order, matching, coherence and creativity to FM decision context and process) and their relative strengths, plus the role of carefully selected and chosen individual characteristics (eg psychological and information processing traits, personal knowledge), and chosen team characteristics.

8. Interpreting individual and team behaviour

Section 8 interprets individual and team behaviour in the dynamic decision processes within Herbert Simon’s ideas and ‘behavioural finance’ literature. The dynamics of leaning within organisations played a role here in altering FM wide knowledge, team and individual characteristics. These created novel opportunities for FMs as individuals and teams to ‘satisfice’ in sophisticated ways and to overcome some of the problems of bounded rationality and of behavioural finance (over confidence) during dynamic decision actions.

Behaviour by FM individuals and teams was a major feature in the FM actions during the dynamics of investment decision making. For example, sense making in routine and creative investment decision actions was primarily a behavioural phenomena. Behaviour by FM individuals and teams during ongoing investment action and interactions was a function of individual FM psychological characteristics (such as attitudes to risk, overconfidence, hubris, bias etc) and FM prior or learnt experiences. Behaviour was stimulated by circumstances and driven by events in markets, investee companies and economies and by internal change in the FM. In particular, changes in individual psychological states were much influenced by prevailing circumstances in stock markets and by changes in markets. Behaviour had both subjective (emotional) and objective (rational) dimensions.

Gervais and Odean (2001), and Odean (1999) explain the process through which stock market traders (such as FMs) become overconfident by learning about their own ability and past performance. They argue that initially, the traders do not recognize their ability, but over time and with more experience, they attribute successful outcomes to their superior judgements, and failure to external factors. Hence, traders “learn” to become overconfident through time. This reflects a self-serving attribution mechanism in individual’s psychology, whereby investors falsely attribute superior past performance to their skills and inferior past performance to chance.

However, FMs differ from such models of individual behaviour in markets due the fact that FM individuals also operate in firm and team contexts. As a result, individual FM psychological states and learning about these were influenced by FM team and organisational context, and their properties and strengths. Behaviour in individuals and self knowledge of own behaviour was moderated and mediated by FM firm and team contexts. Strengths (weaknesses) in the properties of organisational and team contexts could allow strengths (weaknesses) in individual psychological characteristics to be controlled and exploited (flourish). Strengths (weaknesses) in the
properties of FM organisation and team contexts were the means to exert (to weaken) control over FM individual own negative behaviour and to exploit the behaviour of other investors. For examples, strengths (weaknesses) in internal risk control systems and in staff recruitment and training could help minimise (exacerbate) behavioural weaknesses such as mismatched attitudes to risk, high levels of overconfidence, hubris, and bias etc. relative to the chosen information niche, investment universe and risk universe.

The FM internal ‘behavioural advantage’ was a combination of chosen (or developed) organisational properties (eg knowledge, order, coherence, matching and creativity properties of organisational context), and of chosen individual psychological characteristics of individuals and teams, all matched to FM investment aims and risk universe. It was an important internal organisational means to exploit FM’s external behavioural advantage in the form of FM knowledge and theory of markets and external behaviour.

This created many opportunities for FM firms to exploit their own behaviour and that of others in a dynamic way during ongoing investment decisions. For example, they could ‘satisfice’ (Simon, 1957) in sophisticated ways relative to other investors and they could release themselves from some of the constraints of ‘bounded rationality’. Clarkson (1963) applied Cyert and March’s (1963) theory of the behavioural firm and its decision making to the trust (or FM) investment process by trust officers in a bank. He showed how fund management was an investment decision process based on ‘heuristics’ and ‘satisficing’ behaviour. He demonstrated how FMs used heuristic ‘rules of thumb’ and made ‘satisficing’ first choices in their stock selection and portfolio choices.

In the case FMs, in the short term, in a context of intense decision pressures and information limits, FM individuals and teams sought ‘just enough’ information to act on in their immediate investment decision. They chose the first hypothesis that appeared ‘good enough’ rather than exploring all potential hypotheses. When time pressures and information limits were reduced, a limited number (often just two) of hypotheses and counter hypotheses could be generated. These could be assessed against ‘just enough’ information (see Bolton, 2008).

In the longer term, the case FMs (as firm top management, teams and individuals) learnt ‘just enough’ in the form of their own theory, heuristics, categories or themes etc to guide the selection of thesis-counter thesis. They learnt just enough to guide the conduct of an effective daily ‘hunt’ for information, to assess the alternatives, and to take investment action. This idea of rational satisficing can be extended to FM learning and investment in resources in the form of structure and process, and their properties. The longer term strategic search for better solutions and results expended significant strategic resources that had to be justified. In the longer term, FM top management sought to employ ‘just enough’ of these resources to support their security market investment decisions to enhance or create a relative competitive advantage. FM top management and board made strategic choices to invest ‘just enough’ in new knowledge based resources. These were intended to marginally improve strengths and reduce weaknesses (in properties of contexts) to improve the relative competitive position of the FM firm, its teams and individuals. They were intended to marginally alter the investment odds in their favour. Mistakes as well as successes could be made in these strategic choices depending on the quality of top management.

Simon also introduced the idea of ‘Subjective rationality’ or behaviour that is rational, given the perceptual and evaluation premises of the subject. The case FMs were ‘close to’ objective rationality when they employed fundamental analysis (of company value creation during stock selection) relative to assumptions of a near efficient market. They were closer to subjective rationality when they sought to interpret the likely behaviour of individual investors, sophisticated investors, the behaviour of the wider market, investee companies, and their own behaviour.

Satisficing, bounded rationality, subjective and objective rationality in active FMs (individuals and teams) arose within prior FM knowledge or theory of company value creation and market process. They arose within highly structured and informed decision processes and rules and hence within prior order and knowledge, properties chosen by FM top management. This was all designed to reduce the perceived FM error and bias, and emotional response to risk and uncertainty in individuals and teams. This could reduce the behavioural costs (psychological and bounded rationality) of poor decision making under uncertainty. The above reveals examples of Simon’s (1976) idea of the FM organisation influencing its member’s behaviour by controlling the decision premises upon which decisions are made rather than controlling the specific decisions.

Many aspects of investment decision behaviour by individuals in markets can be explained, in part, by ‘behavioural finance’ theory. Behavioural finance theory has developed extensively in the past thirty years and has many implications for investors (Shefrin and Statman, 1985; Tversky and Kahneman, 1992). The FMs knew about investor behavioural problems such as overconfidence, bias, and memory issues discussed in the ‘behavioural finance’ literature. However, they also knew that they as organisations had the means to counter such behaviour in their individuals and teams, and they also had the mean to exploit the behaviour of others during their immediate and dynamic decision processes.
FM firms sought to control or exercise some influence over personal cognitive characteristics, other psychological characteristics, and emotional characteristics of their own individuals and teams. This was done, inter alia, through recruitment, through training on the job, through the use of heuristics, and by the imposition of organisational norms for behaviour. They also sought change their own behaviour to exploit the expected behaviour of ‘naïve’ investors. Control was also sought through organisational design and through the properties of professional FMs. The properties of FM organisational context and process and the chosen and learnt psychological characteristics of individuals and teams, all matched to FM investment aims and risk universe, were collective means to overcome bounded rationality limitations in information processing and sense making capabilities of individuals and teams. In behavioural finance terms they were means to overcome hindsight bias and overconfidence at the level of individuals. They were the means to enhance sense making and information processing capabilities and reduce bounded rationality during the dynamics of ongoing decision making.

Strengths were sought in areas such as internal risk control systems and in staff recruitment and training. These were used exercise some control over FM own behavioural weaknesses such as mismatched attitudes to risk, high levels of overconfidence, hubris, and bias etc. relative to the chosen information niche, investment universe and risk universe. They were also used to exploit similar perceived behavioural weaknesses in other investors.

The FMs knew about investor behavioural problems such as overconfidence, bias, and memory issues. They tried to exploit this via their knowledge of company economic fundamentals and of markets and other investor behaviour. This was done within investing teams (stock selection) and committees (asset allocation). Thus they tried to ‘correct’ any bias or overconfidence in their probabilities of events using these means and they used this, in turn, to avoid errors such as over-reaction. The sophisticated FMs knew about the emotional responses of naïve investors to certain events and market conditions. They sought to control and exploit such a response within the FM. For example, the FM team conducting stock selection and the investment committee making asset allocations decisions, could recognise and control their emotions through explicit discussion. These groups wrote down options, canvassed opinions and feelings, and explored (and in some cases rated) their own emotional responses. The FMs also used computers to overcome memory and cognitive processing limit in individuals and teams and to gain a wider view of history etc. They also used teams and structured investment processes (SL and AL) to compensate for individual memory limits and the constraining effects of the use of narrow heuristics.

9. Learning, knowledge creation, feedback and new priors in FM

Section 9 discusses the longer term dynamics in FM involving learning, knowledge creation, feedback and the development new priors in FM. The latter became the new context and drivers of new investment actions in FM. Nonaka and Toyama (2005) and Holland et al (2011) are key literature in this area.

There were longer term knowledge creation dynamics in FMs.

The continuous action, interactions, feedback and dialogue during more immediate investment actions created opportunities for (multi period, and longer period) cumulative FM learning at individual, team and firm levels. They led to learning about the perceived drivers of FM fund and market outcomes. This included new knowledge about investee companies, about markets, and about the FMs per se. The interaction and learning fed back into cumulative FM (individuals and teams) understandings and experiences of their investment decision behaviour and performance. The interaction and learning created new knowledge intensive priors (for individuals, teams, the immediate decision context, and firm wide) of FM investment decision behaviour which then became drivers of or priors for subsequent investment decisions. These interactions and the FM responses revealed the shared dynamic elements to FM investment and learning behaviour.

Learning and knowledge creation occurred in the same FM contexts as ongoing investment action. They occurred within individual, team, and firm contexts during ongoing investment action. They also arose within the context of prior knowledge. This led to the creation of new or adapted priors (P) and decision capabilities (X). Internal and external contextual order, prior knowledge and their role in knowledge creation were interpreted as ‘Ba’ within Nonaka and Toyama’s (2005) ‘theory of the knowledge creating firm’. Ba is a dynamic place or context inside and outside of organisations where one shares a context with others to create meanings. Without context to specify time, place, and relationship with others, knowledge becomes just information. Ba is the inter-subjective space-time where meaning is created through dialogues and practice.

Price feedback from stock markets, feedback from investee companies and the economy, performance feedback from savers and trustees, and internal FM research and reflection, all stimulated changes in investment decisions making and
Learning and knowledge creation arose in FM individuals during investment processes and decision action, with this learning occurring in (and being modified by) team and organisational contexts, and wider economic circumstances. Psychological characteristics of individuals (such as overconfidence) were modified by learning (Gervais and Odean 2001) with this learning being further modified by FM team and organisational contexts. Much knowledge exchange and formalisation took place between these individual, team and organisational levels.

Existing knowledge embodied in team and organisational structure and process played a central role in learning and knowledge creation by individuals. The learning and knowledge creation created conditions for strategic analysis and choice about knowledge based resources. As Fahy (2000) noted "..there is a need to illuminate the role played by management in the process by which resources are converted into positions of advantage.” FM top management played a key role in identifying new knowledge resources, in developing them further, in protecting them, in transmitting and deploying them to many different FM teams and individuals. Top management initiated processes by which parts of individual and team knowledge were formalised during periodic reviews and during strategic choices by top management about investment in these key resources (Fahy, 2000). Thus periodic reviews were the basis to ask; what have we learnt? what do we know? what do we need to know? FM top management and board used such reviews to take strategic decisions about key properties or resources relative to FM investment philosophy, aims, and investment universe. Strategic choices were made to invest ‘just enough’ in new knowledge based resources such as improved research capabilities, staff training, new staff, and new commercial data bases. Training was an important means to diffuse and implement this firm wide knowledge throughout the teams and individuals. In some cases, formal knowledge management was employed in the FM firm to create these outcomes. In this respect Edvardsson and Oskarsson, (2011) note that service firms with formal knowledge management report more value creation in the fields of customer capital, innovation and human capital compared to firms that have not introduced knowledge management.

These investments in knowledge based resources were intended to marginally improve strengths and reduce weaknesses (in properties of contexts) to improve the relative competitive position (or sustainable competitive advantage or SCA) of the FM firm, its teams and individuals in their peer group of FMs. Knowledge was intended to form the core of a sustainable competitive advantage (SCA). The presence or absence of a SCA predicted relative commercial success and failure and relative vulnerability to crisis (Fahy, 2000). The new knowledge based resources were intended to marginally alter the investment odds in the FMs favour. ‘Enough’ was an informed judgement about the resources required to generate the desired over performance. No attempts were made to create ‘Rolls Royce’ research or fully error free judgements. Strategic choices were made to invest ‘just enough’ in new knowledge based resources. Moving from being 50% right to being 55% right in investment decisions was a more feasible aim. Mistakes as well as successes could be made in these strategic choices depending on the quality of top management. If successful, the new resources became new priors in the form of wider, more explicit FM firm wide knowledge about decision making, markets and companies and about organisational properties such as order, matching, creativity etc. The interaction and learning created new knowledge intensive priors (for individuals, teams, the immediate decision context, and firm wide) of FM investment decision behaviour which then became drivers of or priors for subsequent investment decisions.

Holland et al (2011) discuss the detailed nature of knowledge creation in FMs. FM knowledge creation processes reflected some features of Nonaka & Toyama’s (2005) idea of a knowledge conversion process (or SECI). In the FMs, tacit and explicit knowledge creation interacted in complex simultaneous processes within internal and external order and within prior knowledge. Within the FMs, the movement from tacit knowledge (about companies, markets, and the FM per se), through explicit knowledge, and back to tacit knowledge, appeared to be a key ingredient, as they sought to synthesise their subjective and objective views about investee companies, markets (for information, stock markets etc), and their own FM firm and behaviours. The knowledge creation processes identified in the FM cases were not full SECI (as a sequential ‘spiral’) as envisaged by Nonaka and Toyama. Despite these limits, the Nonaka and Toyama concept was valuable in analyzing FM attempts at knowledge creation across many FM conditions.

Creativity was central to the core investment function of the FMs. The case FMs learnt from their ‘Ba’ ‘harbours’ and their SECI like interactions and generated new knowledge from them. However, the routine dimension to this knowledge creation was a threat to FM competitive advantage. The FMs sought novel ways or ‘kata’ (Nonaka and Toyama, 2005) to break out of the routine to create new knowledge. ‘Kata’ like processes were designed to break out these ordered routines. The processes were manifest during intense probing of investee companies, when pressurizing problem companies and noting responses, and when the FMs were receiving urgent and often significant feedback from stock markets. They also arose when informal communications within the FM was encouraged, via ‘brainstorming’, when different investment teams pooled knowledge from different areas (regions, industries etc), and when new ad hoc committees with novel combined skilled membership were set up to deal with new issues.
The intended consequences of learning included adaptations of existing knowledge and priors. For example, the FMs perceived that their actions and interactions (and those of other information producers and users in the ‘market for information’) intermediated external stimuli and company specific information into consensus understanding and confidence states in the ‘market for information’ and then into stock prices and into other stock market states such as volatility, liquidity, and bid offer spreads. Their continuous experience of these actions and states contributed to their theory of ‘market behaviour and pricing’ and hence to their priors about their external world. The FMs also created new knowledge about their investee companies, and the FM firm, its teams and individuals. This can be interpreted as human, structural and relational forms of intellectual capital (Meritum, 2002). Such knowledge existed as cognitive states in individuals, as explicit and implicit properties of the capabilities of individuals and team, as properties of FM context and process, and as formal FM firm knowledge about such knowledge and how to use it.

Thus cumulative learning and FM knowledge creation over time generated stable FM knowledge priors (P) in individuals (P1) and teams (P2) for investment decision making behaviour. Formal reviews and exchange of knowledge created firm wide knowledge intensive contexts (P4) and learnt preferences for investment decision making behaviour (P3). Visible use of priors (by individuals and teams, eg discussing their theory of markets) was a signal about the quality of FM investment decision making quality.

The intended decision consequences of learning included improvement in FM investment decision making capabilities (of teams and individuals) and perceived market states. These included, inter alia, improvements in FM responsiveness and investment decision making capability (via the learnt priors such as theory of markets). They included improvements in saver and trustee understanding and confidence states concerning FMs, and in FM reputation for investment decision making’.

10. Variation and weaknesses in FM.

The empirical patterns in FM and theoretical analysis demonstrate what is shared or common across many FM types in terms of the nature of contexts (and their properties and strengths) and dynamic processes. The FM contextual elements and dynamic interactions were common empirical patterns across case FMs. In this section, the paper notes that issues of variation in FMs (context, properties, strengths) arose in fund management and hence the grounded theory.

Variation in context and properties (at firm, team, individual levels) were used to tentatively explain, in part, FMs type or style such as indexer, value, growth, special situation, hedge, quantitative or qualitative FMs. Variation in strength (weaknesses) of properties (within a fund type or peer group) were used to tentatively explain, in part, differences in performance in a style group. This analysis requires a broader understanding of the nature of contextual variation and of strengths and weaknesses in FM.

Variation in FM firm context - philosophy, beliefs, and type of FM.

Different FM types or peer groups included FM such as indexer, value, growth, hedge, special situation, quantitative or qualitative FMs. The above elements, properties, strengths and dynamic interactions between FM resources and individual and team decision making were common empirical patterns (in the GT of FM) across all case FMs types. For example, in all FMs, the common internal strategic context (and response systems) for investment decisions included, inter alia, FM philosophy, FM knowledge, core beliefs, shared values and aims. These influenced decisions on investment policy or risk return preferences (as an additional style context) and investment products, and choices on preferred information niches, and investment and risk universe to match policy.

However, considerable variation arose in FM firms and their investment decision behaviour relative to their ‘style’ group and other types of FMs. Variation arose in part, due to historic learning, knowledge creation, and strategic choices about resources. This variety in FM style was also driven by variation in key parts of the strategic context, especially the FM ‘world view’, philosophy and beliefs about company value creation and market valuation. Beliefs about market efficiency and asset pricing, about behaviour in markets, whether special sources of unique information existed, where they were located (in companies, markets, circumstances, or the FM firm, and in private or public domains), how transient they were, what form they existed in (quantitative or qualitative), and how they could be exploited, were particularly important. They affected the degree of activity of the FM in these information niches. Clusters of shared beliefs and common ‘world views’ across a set of FMs was a key basis for the creation of a unique FM type, style or peer group.

A key source of variation lay in the FM philosophy based on relatively stable fundamental assumptions and core beliefs about the complex economic and social system FMs operated in. FM firms could interpret this world through either of two extremes of a quantitative ‘science’ view or a qualitative ‘art’ view or adopt a combination of these ‘world views’ as their ‘house’ philosophy. The FM firm ‘world views’ had an important impact on the degree to which asset allocation and stock selection decisions used quantitative or qualitative (or a mixed)
methods approach to locate and exploit perceived information niches. This variation in ‘world view’ also played in role in FM learning and knowledge creation, with the priors tending to encourage knowledge creation about company value creation and market valuation processes that matched the priors. Thus prior knowledge in a FM varied with these factors.

Other more objective factors such as FM size, national origin, and parent, as well as the unique characteristics (and demands) of investment markets for pension funds (wholesale) and for retail savings played a role in FM contextual variety. Size of the FM was an important differentiation factor because large funds could develop economies of scale in collecting information and in exploiting niches. The nature of the FM parent (pension fund, insurance company, charity, investment bank) could also influence FM investment purpose.

There was also variation in common individual and team characteristics such as knowledge, skills, experience, and psychological states/tendencies. There was also variation in the degree to which individual and team motives, beliefs and philosophies varied from firm level equivalents. These factors were major determinants of variation in actual decision making behaviour in specific funds managed by individuals and teams. These factors could contribute to opportunism and bias in many dimensions of this fund manager investment decision behaviour.

FM firms varied in their degree of organisation control and order imposed on individuals and teams. High control and order (risk controls, investment type and size limits etc) reduced variation caused by individuals and teams, and minimised their unique behavioural errors and deliberate manipulations. However, this also reduced their creativity and imagination and discretion in judgement. Large FM firms, recognised these problems, and knew they could never fully control the behaviour and errors of individual and teams, and this was not desirable anyway. As a result they sought a degree of control and order (over individuals and teams) consistent with their investment aims, which created conditions for creativity (for new information new products), information and knowledge sharing, and discretion (decision autonomy), whilst recognising this could lead to some error and manipulation. These choices also affected variety in FM.

The above specialisation (or variation) in FM firm, individual and team contexts (and their properties and strengths) was a major influence on the immediate decision context and the behaviour of individuals and teams in investment decision making. This led to much variety in actual decision making practice and behaviour, and hence in fund characteristics and performance

**Weaknesses, negative behaviour, underperformance and failure**

Weaknesses and negative behaviour arose in the properties of context and process in the FM ‘investment machine’. The subsequent negative interactions within a purposeful FM ‘investment machine’ were a basis for underperformance and failure. In some FM cases, the weaknesses persisted and undermined their net competitive advantages. As a result, very few case FMs had the complete set of strengths to fully exploit their chosen information niche, investment and risk universe. Thus few FMs over-performed and many under-performed.

Patterns were revealed for weaknesses and problems in these areas. Empirical patterns from (grounded) field research revealed that weaknesses in the FM investment process could be classified as arising from weaknesses in their properties of contexts (firm, team, and individual) and process, by where they arise (location), and how they arise (systematic, unconnected, key component). For example, weaknesses in the FM investment organisation context and process can be classified as weaknesses in their properties of order, creativity and knowledge. They can be classified, inter alia, as weaknesses in their properties of shared knowledge, communication and consensus decision making in teams, and the psychological traits and knowledge of individuals. In terms of location, empirical patterns from the cases revealed such behavioural weaknesses arose in areas such as mismatched attitudes to risk, high levels of overconfidence, hubris, and bias etc. relative to the chosen information niche, investment universe and risk universe. Weaknesses could arise in FMs own theories (individual, team, firm) of behaviour in markets, and in the way they thought about how distinct groups of investors were behaving differently to each other, but in ways common within their own market ‘behaviour’ segment.

As noted above, strategic choices were made to ‘satisfice’ (Simon 1957) or invest ‘just enough’ in new knowledge based resources. Mistakes as well as successes could be made in these strategic choices depending on the quality of top management. These could include under investment in research and staff training. They could include the absence of periodic reviews and of some form of knowledge management. They could include more fundamental errors in terms of a misplaced focus on wealth alone and on ‘established’ knowledge in ‘investment society’ (Holland, 2010). For example, the 2007-09 financial crisis revealed that a critical area of weakness lay with the knowledge dimensions of FM. Many weaknesses and failures in areas of FM knowledge especially at individual, team, firm levels and concerning FM knowledge of bank models, and of bank financial reporting, arose during the crisis of 2007-09. These weaknesses were deeply implicated in the failure of banks and in the poor performance of financial institutions such
as FMs during the crisis of 2007-09 (Holland, 2010). The analysis of FMs problems during the financial crisis revealed the central role of knowledge failures. Before the crisis institutional investors focussed on a very narrowly conceived ‘shareholder wealth’ model of banks and ignored much of the complexity of the newly emerging underlying business models and risks. Their incentives were to learn about new transactions and their growth and value possibilities for investee companies (banks). Resources were devoted to this form of learning in FMs, Individual and team pay and bonus schemes were closely linked to growth and wealth aims in FM firms.

Thus there are many possibilities for weakness to arise FM structure and process, in behaviour, in properties and strengths, and for all of these to interact in negative ways. More generally, the combined FM elements (organisational, team, individual), with extensive properties and high strengths (weaknesses), interacted to create the capability at FM team and individual levels to improve (reduce) asset quality, FM performance, and FM disclosure quality (at managed fund level, at firm level). This also created the capability at firm level to improve (reduce) the effectiveness of FM firm wide information, disclosure processes, and financial intermediation processes in FMs and increase (reduce) the flow of investment funds into the FM firm and its funds.

Weakness in FM firm contexts and their properties can encourage weakness in FM team and individual behaviour. Weaknesses in FM firm context and process and behaviour interacted in many negative ways. For example, weaknesses in internal risk control systems and in staff recruitment and training could exacerbate behavioural weaknesses at team and individual levels such as mismatched attitudes to risk, high levels of overconfidence, hubris, and bias relative to the chosen information niche, investment universe and risk universe. The many possibilities here reveal how difficult it is for FMs (team, firm) to organise their investment operations to overcome weaknesses. This provides some explanation of why so much of FM involves competitive disadvantage, underperformance and failure rather than success.

11. Theoretical analysis of the overall grounded theory of fund management

In the previous sections a set of relevant theories and literature was used to interpret specific empirical patterns in fund management. In this section, the analytic framework, based on all of the relevant theory and literature, is used to explain the full grounded theory of FM at two levels. Firstly at the level of immediate FM firm decision context, the FM world of action, and FM exploitation of resources (or the immediate dynamics in the grounded theory). Secondly, at the level of the development of broad FM firm function, form and resources (or the long term dynamics in the grounded theory). These theoretical sources are integrated using the resources based view (RBV, see Barney, 1970) to provide additional new and novel insights into FM.

Theory was used to explain the immediate FM firm decision context and its world of action, of doing, and exploitation of firm level resources at individual and team levels. Thus theory was used to explain the ongoing dynamics of immediate decision actions by individuals and teams. The FM investment decision making process (Stock selection and Asset allocation) conducted by individuals and teams in the FMs was both a routine and an adaptive process. FM investment decision making process was explored as both a goal seeking structured task sequence (Cyert and March, 1963) and as a process of sense making (Weick, 1979). These occurred together as one dynamic process as FMs (individuals and teams) exploited and were influenced by firm resources in the form of a common organisational context and its properties of knowledge, order (as organisation and process and as, matching, and coherence) and their relative strengths. The two views of process revealed different but related means to cope and reduce the uncertainty associated with equity investments (Hellman, p236, 2000) and to find new information and investments of value. Both informal ‘conversations’ and formal communications were important. Gratton (2002) and Weick (1998) note their role in recognising and solving problems, and making novel associations and connections. Creativity was an important part of FM investment decision making process and was built on prior order in the form of creative properties to their decision contexts and processes (Nomaki & Toyama, (2005), Ford and Gioia, (2000)). These collective properties and their strengths were the combined organisational means or resources for FMs to marginally alter the odds in their favour and to create investment portfolios expected to be robust across a range of potential circumstances. Strategic choices were made to ‘satisfice’ (Simon 1957) or invest ‘just enough’ in new knowledge based resources. Behaviour was also a major feature of investment action in the FM cases, Simon’s (1957) ideas and the ‘behavioural theory of the firm’ (Cyert and March, 1963) were used to interpret FM firm and team behaviour. Developments in ‘behavioral finance’ (Shefrin and Statman, (1985), Tversky and Kahneman (1992)) were used to explore FM investment decision behaviour (by individuals and teams) in markets. This demonstrated how FM understanding of its own behaviour and that of others in financial markets created an addition knowledge resource for exploitation.

The ongoing financial and economic processes in the case FMs leading to FM financial performance were much influenced by this larger FM team, organisational and institutional setting. This can be interpreted within conventional finance theory. FM used their knowledge and order properties (in organisational, team and individual contexts) to exercise control over contracting, information asymmetry and adverse behaviour, and to
influence investee companies. These all contributed to the quality of FM information sources and investment decision (stock selection). This in turn contributed to the quality of construction of their equity portfolios (asset allocation) consistent with client or saver's requirements (for risk, return, liquidity) and FM financial performance. The ordered contexts (firm, team, and individual) and purposeful process and their properties created a stable risk and return generation ‘machine’ in FM and contributed to Beta returns or portfolio returns commensurate with risk. FMs built on this order to develop more creative sources of information ways and hence generate Alpha returns for their portfolios. It can be argued that successful FMs created supportive conditions for closing the gap between semi strong and strong form market efficiency. When they released information via their investment decisions and trading actions, they contributed to high quality information content to semi strong market efficiency.

Theory was also used to explain the development of broad FM firm function, form and resource based advantages in its environment. Thus theory is used to explain the longer term dynamics of feedback, learning, knowledge creation, and new priors. The nature of the wider institutional setting and changes were important influences on FM learning about internal and external FM organizational order, and about FM firm properties of coherence, matching, and creativity, and their strengths. They were important influences on FM learning about team and individual contexts, their properties and their strengths. These were interpreted as evolutionary (Nelson and Winter 1982) responses to uncertainty developed in a common institutional setting (Scott and Meyer, 1994; Scott, 2001). This external context to each FM also included established or prior knowledge in the wider professional and academic communities (or investment society) This concerned widely accepted decision models and theory of markets (Preda, 2007) and acted as a further influence on learning.

FM learning and knowledge creation was driven by fundamental changes in economic transformation processes of companies, fund managers, and to the financial system, as well as FM and firm specific examples of success, failure and crisis. FM active learning (Pedler et al (1997) and knowledge creation (Nonaka, Toyama, 2005) aided the development of strategic resources such as new knowledge and organisation (order, coherence, matching, creativity) to conduct investment operations. Learning was not enough. These longer term changes dynamics were further mediated by top management strategic choice. FM TM and board strategic decisions and actions were critical to the choice, development of these key properties or resources relative to FM investment philosophy, aims, and investment universe. Thus top FM management choice, during active learning, and within competitive and evolutionary processes, can explain, in part, the emergence of competitive advantage in FMs in their peer group. Top FM management learning, identification, protection and FM possession of these key resources were the strategic means to construct special FM sustainable competitive advantages (SCA) in their peer group. Strategic choices were made by top management to ‘satisfice’ (Simon 1957) or invest ‘just enough’ in new knowledge based resources. This was consistent with the resource base view of the firm (RBV) (Fahy, 2000) and the role of top management finding and matching resources between the firm, its environment and success factors in the industry. The vast bulk of these (core) resources were used to support core FM functionality in investment decision making. A smaller group of scarce, valuable, appropriable and difficult to imitate (or substitute) resources, (building on the base of core resources), were the key to sustainable competitive advantage (SCA) in the investment decision area.

FM specific knowledge at firm, team and individual levels (defined as intellectual capital, Meritum, 2002) and other properties or resources were recognised to be at the heart of FM sustainable competitive advantages and relative success and failure. Much specialist knowledge, inter alia, of the environment, investment society, markets, corporate value creation, and of FM organisation and investment process, was employed by FMs (individuals and teams) during their investment decisions in specific funds under management. These special advantages or strengths in knowledge were manifest in other organisational properties such as order, coherence and matching, as well as shared skills in teams, and special capabilities and skills of individuals. The Resource Based view (RBV) of the firm (Barney, 1970, Clulow et al 2003) and Teece, 2007) was used to interpret the role of resources such as knowledge in dynamic FM competitive advantage and subsequent decision behaviour. The FMs sought to appropriate value from these unique resources and their associated capabilities and to maintain them over time. This active search can be interpreted within Teece’s (2007) idea of a dynamic (SCA) capability.

The above theoretical analysis demonstrates that much of FM context, process and dynamics can be explained within conventional theory of the firm and organisational theory. The FM firm is thus similar to many non financial firms in this respect. Such development of new insights into financial institutions such as FMs, and the exploitation of existing literature in the area, has become an urgent matter in response to the post 2007-09 financial crisis environment.

The empirical patterns and analytic framework provide an example of how to develop a new conceptual framework to think about the decisions and behaviour of financial institutions such as FMs as organisations (firms) in an active market and institutional setting. The paper contributes to ‘Management Theory’ in the Van Aken (2004) sense by being based on ‘field-tested and grounded technological rules’.

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Both theory frames are used to explain the (dynamic) origin of the FM context and process, and how FM as firms, teams and as individuals exploited these when pursuing (dynamic) investment decisions. The literature on the institutional setting, the learning organisation, IC, and RBV, are used to explore the long term dynamics. They are used to show how an informed, knowledge intensive context was created in FM firms over time, and how this was matched to its environment and focussed on its investment aims. This theoretical analysis of FM environment and context shows how the strategic resources in FM were created. The literature was also used to show how the strategic resources in FM were exploited in more immediate decision dynamics. The broader firm level context and factors were central to effective routine decision making in firm, to sense making and creativity in decisions, by teams and individuals. They enhanced the capabilities of individuals and teams. They were central to firm level control over behaviour of teams and individuals and to their production of the desired FM financial performance.

The theory frames also provide a means to think about how change occurs and how change can be encouraged in FM. At level of FM firms and external networks, the grounded theory of FM and the empirical patterns concerning external relations and networks can be interpreted within organisational theory and institutional theory. In Leavitt’s (1965) terms, these empirical patterns (about firms, relations and networks) provide knowledge of four interacting organisational variables concerning people, technology, structure and task. This knowledge is essential to understand change brought about by external forces such as ‘financialisation’ and globalisation. It is essential to bring about new organisational change concerning shareholder wealth maximising issues (SWM) and environmental, social and governance (ESG) issues (Holland, 2011). In this case ‘internal organisation’ is the FM firm and ‘external organisation’ is the ‘chain of accountability’ in external relations and networks. The empirical patterns, the change pressures and the debate about ‘balance’ on SWM/ESG issues, all aid the understanding of the triggers for change. They help in understanding the interdependencies in the change process, conflicts and time lags (p527, Huczynski, Buchanan, 1991) in these organisation elements and their environments. They can be used to clarify what are the appropriate areas or ‘targets for change’ in FM and the ‘chain of accountability’ concerning SWM/ESG issues. Their integrated nature can ensure that SWM/ESG changes and accountability changes can be analysed in a coherent and connected manner (Holland, 2011).

12. Summary and Conclusions

This paper has described a coherent grounded theory of FM and discussed this within relevant theory. The field research and analysis in this paper has revealed the significance of context and process and their dynamic interactions in FM investment decisions. This confirms prior research by Holland and Doran (1998), Hellman (2001), Arsnwald (2001), Holland (2001, 2003, 2004, 2006), and Holland and Johanson (2003). This work extends the previous research and an embryonic grounded theory of FM by revealing the nature of the organisational context and its properties (knowledge, order, coherence and creativity), the nature of individual and team contexts and their properties, and the many dynamic interactions in immediate FM investment decisions and in longer term knowledge creation.

The paper has also made a contribution to the literature by using existing theories in new ways, both individually and collectively. These theories were used to develop many new insights into the empirical patterns concerning FM and thus demonstrate their collective power in this neglected area of financial institutions. This revealed a robust and novel theoretical framework to interpret the FM case data and the distinctive empirical patterns emerging from this data. The paper illustrates how these diverse literatures can be linked together via the analysis of the empirical patterns. The analysis has linked together literature and theory on; the institutional setting, fund management and investment decision making, organisation, creativity, finance theory, financial intermediation processes, behaviour, learning and knowledge, and competitive advantage; in a novel way. The aim was not to develop these individual theory frameworks, but to position the paper and its issues relative to relevant literature and to demonstrate their collective power in interpreting the combined phenomena, in suggesting new areas and directions for research, and in contributing to further policy development.

This joint theoretical and empirical analysis formed a new conceptual framework for understanding FMs and the empirical patterns observed in the cases. Many FM users and stakeholders can use this conceptual framework to break out of the perceptual and cognitive constraints based on one (often finance) theory view. This grounded theory and analytic framework have many uses including enhancing current explanations of FM, and improving FM disclosure by making explicit the links between an ‘invisible’ FM process and public measures of FM performance. More specifically, the conceptual frame can help FM’s to clarify and standardise their investment decision making value creation narrative to savers and clients.

The conceptual framework can be used to analyse major accountability and governance issues. For example, the conceptual framework is a new means to analyse how FMs can incorporate environmental, social and governance (ESG) issues into their equity investment decision making (Holland, 2011). Trustees of say a
pension fund, can use the new conceptual framework (to improve narrative and proxy measures) to enhance trustee governance of FMs holding their funds, and to encourage the same FMs in turn to enhance their governance or stewardship role with investee firms. The trustee mandate or contract with FMs may also be enhanced by using a combination of the conceptual framework and institutional shareholders codes for ‘good’ corporate governance by FMs. (eg The Institutional Shareholder Committee UK, 16th Nov 2009)

The empirical patterns and theoretical analysis provide a new means for investigating variety across different FM types or peer groups (indexer, value, growth, hedge, quantitative or qualitative) and generating broad hypotheses concerning these differences (in strategic, policy, organisational, team and individual contexts and their properties), and their consequences for FM information and decision outputs and their performance across peer groups. Within a peer group (with broadly similar strategic, policy, organisational, team and individual contexts, but different properties and strengths), the empirical patterns and theoretical analysis provide the means for generating broad hypotheses concerning the FM drivers of FM success and failure in that FM sector. Given the poor performance of many FMs, the key research question may not be how to achieve success in FM, but how to identify and to reduce or remove persistent failures from the savings and investment system, and thus how to reduce the downside risk of under performance across large numbers of FM.

The empirical patterns and analytic framework provide an example of how to develop a new conceptual framework to think about the decisions and behaviour of financial institutions such as FMs as organisations (firms) in an active market and institutional setting. The paper contributes to ‘Management Theory’ in the Van Aken (2004) sense by being based on ‘field-tested and grounded technological rules’.

The paper is an example of new research agenda in finance. The theoretical analysis in the paper demonstrates that much of FM context, process and dynamics can be explained within conventional theory of the firm, organisational theory, behavioural finance and other related literature. The FM firm is thus similar to many non financial firms in this respect. Such development of new insights into financial institutions such as FMs, and the exploitation of existing literature in the area, has become an urgent matter in response to the post 2007-09 financial crisis environment.

The paper reflects Easterby-Smith et al.’s (p793, 2000) view that ‘The time is now ripe to start addressing learning and knowing in the light of inherent conflicts between shareholder goals, economic pressure, institutionalised professional interests and political agendas’

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