Practitioners, Observers and the Community of Received Wisdom: The Actor-based Approach to Technological Investment Decisions[1].

Georgios Samakovitis*+ and James Fleck**,
***The University of Edinburgh Management School, Edinburgh, UK**
****The Open University Business School, Milton Keynes, UK**
+ Corresponding Author
Georgios.Samakovitis@ed.ac.uk and J.fleck@open.ac.uk

Abstract: This paper addresses the problem of technology valuation in UK financial institutions, specifically concerning the introduction of Internet Banking. The research looked into the prescribed processes and the respective established practices for Technological Investment Decision-Making (TIDM) in banks. Significant disparity between process and practice was found, on the grounds that the actual decisions are determined by experts' perceptions and are less about the normative assessment of economic value, as defined in academic literature and corporate handbooks. The research suggests that the TIDM problem is *socially constructed* (rather than externally addressed) by experts who either participate directly in decision-making or, alternatively, contribute to developing relevant methodologies. The TIDM problem is ultimately defined by the disparate perceptions of the problem that these different interested parties, or "actors", assume. Three classes of actors were identified: (1) Practitioners, namely expert professionals in Financial Institutions, (2) Observers, primarily academic researchers, consultants and government bodies, and (3) the Community of Received Wisdom, reflecting commonly understood views on what TIDM is and how it should be made. According to the Actor-based approach, the shape of the TIDM problem results from continuous negotiations between actors' viewpoints, in light of expert power positions, political advocacy and fitness to the prevailing TIDM paradigms. These viewpoints are by default informed by experts' academic and professional backgrounds, which strongly influence both the received understanding of the TIDM problem, and the perceptions of practitioner and research experts. The paper recommends that the Actor-based approach may contribute to improving TIDM: instead of seeking measurement precision as the solution to valuation ambiguities, notoriously characterising technological investment, it is suggested that we take explicit account of the differently-informed perceptions of expert groups, as these are encoded into existing formal methodologies. By mobilising these disparities, newer approaches can combine the socio-political together with the economic factors for technological valuation.

Keywords: decision-making, Internet Banking, investment appraisal, uncertainty.

1. Introduction

Systematic attempts at determining the value of technology have been around for some time. Academics from a range of disciplines, such as Finance, Accounting, Organisational Studies, Economics and Technology Policy, have dealt with the problem in different, primarily quantitative ways. Determining the value of new technology for a firm has generally been the task of practitioners who, as decision-makers, aim to optimise the returns on investing the firm's resources. Technological Investment Decision-Making (TIDM) has traditionally been perceived as the outcome of valuation: conventional wisdom in both academia and industry is that *assessment* of costs and benefits and the *decision* to adopt technologies are directly related. It is argued in this paper that the empirical evidence indicates, in contrast, that TIDM is largely made on the basis of political positions and strategic goals and is less about valuation and assessment. Informal negotiation between experts' viewpoints takes precedence over valuation techniques, which are used more as justification constructs than as evaluation instruments—as Freeman & Soete (1997) point out.

This paper draws on 30 semi-structured interviews with banking practitioners and addresses the introduction of Internet Banking technologies in 10 UK financial institutions—PhD research carried out by Samakovitis (2006). The research adopts a variant of Grounded Theory (Glaser and Strauss 1967), which we have termed "Informed Grounded Theory" (or IGT). This begins directly from empirical data (hence "grounded") to derive new theories about TIDM in the light of past theories (hence "informed"). It proposes that the TIDM problem is *socially constructed* through interactions between the interested viewpoints of experts who deal with TIDM in different settings, both inside and outside the organisation. Technological decisions are not seen as pre-existing problems that experts

[1] This article is based on the doctoral research carried out by G. Samakovitis in Edinburgh University Management School, advised and supervised by Prof. James Fleck

are called in to resolve; rather, both experts and wider communities of interest *define* what TIDM is and how it should be dealt with. This paper seeks to make sense of the ways that this interaction takes place and to explore the relationship between prescribed processes and established practice.

We first outline the theoretical framework used in the research and then discuss the methodology and data analysis adopted. The findings of the research are then reviewed and, the results discussed with the aid of a framework that clarifies the relationships between different agents—observers and practitioners—and the specific roles they play in regard to the TIDM. Finally, it is suggested that fully effective approaches to the TIDM problem need to adopt a more holistic treatment by incorporating interests and political positions as an explicit factor in decision-making procedures.

2. The Theoretical Framework

2.1 The Actor-based Approach

Clearly, a range of different agents with different viewpoints, backgrounds of expertise and knowledge and interests are involved with the TIDM, directly or indirectly. An actor-based approach was therefore adopted in order to explore the influence of such factors on TIDM. Approaches using actors as points of reference are not new, and are adopted in numerous sociological or technical fields. The term 'actors' is used here in its dramaturgical sense to denote individuals, groups or communities who construct the landscape of TIDM through their expertise and informed opinions.

The decision to use this approach was made after considering three other approaches which also deal with organising and using existing knowledge for tackling the TIDM problem. These included:

1. The *Disciplinary* approach, where the social researcher is using knowledge on the investigated problem as that is formalised through academic disciplines. Reviewing TIDM through this approach entails visiting each discipline that dealt with TIDM in the past to formulate a broad view of the problem.
2. The *Mission-oriented* approach, where the motives – most often the research agendas of Universities – take precedence and where the problem is addressed through taking account of the specific purposes of these research agendas. In this case, motives dictate the dimensions of the problem that the researcher should focus on.
3. The *Tradition-based* approach, where the traditions of decision-making that have developed in the practical field of TIDM are used as the guidelines for addressing the problem. The term 'traditions of decision-making' is used to refer to established modes of deciding within a 'comfort zone' of each organisation and its expert practitioners. Traditions are not fully detached from disciplines and their particular understandings of TIDM; they are connected to them through an implicit relationship. Disciplines inform the backgrounds of experts who participate in decision-making. In addition, they influence traditions of decision-making by offering a broad orientation to the problem[2].

The problem with these three approaches is that they inherit established organisations of knowledge about the investigated problem. They rely on conceptualisations and understandings of TIDM as these have been formalised *within* systems of knowledge (disciplines, research agendas or frameworks of practice) and hence carry these systems' positions. While all three approaches reflect the nature of how knowledge is organised in reality, they each have limitations in how they make use of empirical material to address the problem.

In contrast, the Actor-based approach reviews TIDM through the agents who define it, and recognises explicitly that their viewpoints are informed by disciplines through agents' educational background and professional training. The Actor-based approach is discussed in detail in the following section.

[2] The risk-centred concerns of Finance, the satisficing concerns of Organisational Theory and the optimising orientation of Operations Research are examples of such discipline-driven stances. They *inform* traditions of decision-making: the risk-centred tradition in financial institutions is one such example; the standard rough estimation approach that was widely visible in manufacturing in the 1970s and 1980s is another; the optimising approach used in areas such as credit risk is yet another.

2.2 Actor-based Informed Grounded Theory (IGT)

The Actor-based approach for addressing TIDM is based on the proposition that interested human agents (actors) develop disparate perceptions of technological investments, depending on their expertise, their educational background and professional training, as well as the setting of their employing organisations. Their views effectively serve to *define* the problem of TIDM as their preoccupation with it prejudges what is the 'right way' for addressing it.

Furthermore, these views, as disclosed in the empirical part of the research, embody the theories and traditions that have dealt with TIDM in the past: what has been said and done about TIDM previously necessarily *informs* experts' viewpoints by being part of their specialisation and training. It is thus only by reviewing what interviewees say about TIDM *in the light of* (rather than in spite of) past theory on technological valuation and decision-making that we can move towards a more complete empirical view. The methodological implication of this proposition is that the adoption of a plain Grounded Theory approach (Glaser & Strauss, 1967), where past theory is entirely left aside, does not do justice to the full value of empirical material. Because data is intrinsically theory-laden (Coombs, 1964), viewpoints carry perceptions conditioned by experts' backgrounds. To take explicit account of the informed nature of data is what Informed Grounded Theory (IGT), the proposed variant of Grounded Theory does. The overall theoretical framework we term "Actor-based IGT."

The particular value of IGT lies in its recursive nature: at the higher level, it reflects the fact that this research takes place on the basis of recognising that past theories of technology valuation inform the existing state of our understanding of the TIDM problem: theory and the ways that the researcher is exposed to it play a defining role for this perception of the TIDM problem. Similarly, at a more granular level, IGT reflects the fact that the TIDM participants themselves are subject to a similar rule: they form their own perception of TIDM, informed by their educational and training backgrounds, which emanate from past theory.

2.3 Practitioners, Observers and the Community of Received Wisdom

In applying the Actor-based IGT, actors who were identified to be relevant to the TIDM problem were categorised under three broad classes: *Practitioners, Observers* and *the Community of Received Wisdom (CORW)*. These were decided on the basis of (1) actors' relationship with the actual decision-making activity itself and (2) actors' consciousness of their identity with regard to the TIDM problem. The first criterion helps to distinguish between professionals who deal with technological investment decisions in an advisory or facilitating role and those who are directly *accountable* for making decisions. The second criterion helps to distinguish actors who explicitly share common perceptions about TIDM from those who share an unaware consensus about TIDM as part of their generic 'view of the world' without however dealing with the problem explicitly. The three actor classes are explained below:

1. *Practitioners* are the professionals employed by financial institutions who participate directly in the decision-making process. This actor class includes experts from a diverse range of specialisations and job descriptions. They therefore *construct* the TIDM problem through advocating their own understanding of TIDM during the decision-making process.
2. *Observers* are the actors or groups of actors who deal with technological investment valuation and TIDM in an advisory role: they participate in *constructing* the TIDM problem either by developing relevant methodologies or by acting as problem-solvers externally to firms wishing to implement new technologies. Observers broadly include University researchers, government bodies and consultants of different specialisations.
3. *The Community of Received Wisdom* is a term we use to refer to Actors who implicitly participate in the social construction of the TIDM problem through their unaware agreement[3] about what technological value is and how it should be assessed. At a high level, CORW may be seen as the totality of Actors or groups of actors who jointly define the wider socio-economic environment, while, at a lower level, it involves the implicit interactions and relationships between Practitioners, Observers and other Actor groups to reach a *collective consensus* about how technological value should be defined, assessed and measured.

[3] The term 'unaware agreement' does not mean that CORW Actors agree outside their knowledge or will. It rather means that their commonly shared opinion on TIDM is not central to their activity, but merely comes as a standard assumption which informs their interests.

The differences between Practitioners and Observers is central to our discussion. Practitioners effectively make the actual decisions in order to deliver an agreement in the organisation that a specific choice of technology should be made. This constitutes their professional task and, to that end, they make use of all the resources available to them at the time. Observers, on the other hand see practical TIDM as a problem in need of a formal solution. Their professional goal is not to deliver a directly implementable decision *per se*, but to develop systematic ways for addressing TIDM in a variety of situations. More importantly, they do so with different interests in mind from those of Practitioners. Academics address TIDM through research, according to the publication-record driven reward system of Universities (Merton, 1973; Giere, 1988). Researchers employed by government bodies do so in order to assist decisions about the effects of a generic technology, as opposed to a particular project. This is a quite different practical problem from that of TIDM in a financial institution. The demarcation between Practitioners and Observers is crucial because the purpose for which a cognitive activity is carried out (i.e., technique development, process development or practical TIDM) effectively underpins the stance of the professionals who perform the activity.

The full Actor-based IGT analysis suggests that TIDM takes place in a setting where Practitioners and Observers contribute their disparate and differently-informed perceptions of the problem, within a broad intellectual infrastructure defined by the CORW. In brief, the CORW plays a role in legitimising the views of both Practitioners and Observers as consistent with rationality and received wisdom on what TIDM is and how decisions should be made. The broad shape of the framework is proposed in **Figure 1**.

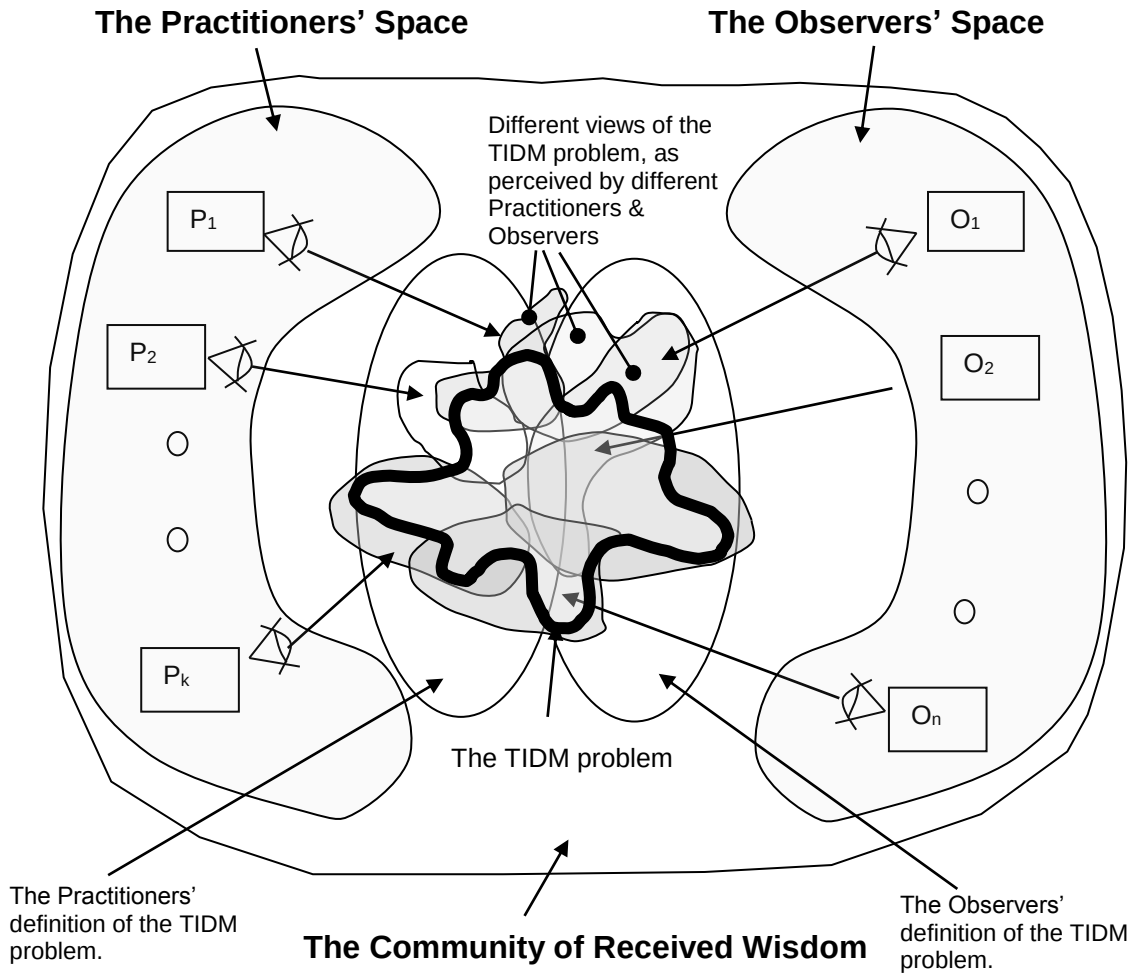

Figure 1: The Actor-based IGT model: This illustrates how the reality of TIDM can be understood as "socially constructed". The problem (marked by the thick line) is constructed through the perceived realities of each expert group of Practitioners or Observers within the CORW. The final 'shape' of the TIDM problem does not pre-exist. It is negotiated and reached through the interaction of Practitioners, Observers and the CORW**.**

3. Data and Analysis

The empirical research comprised case studies of 10 UK financial institutions which have been involved in Internet Banking projects in either retail or corporate banking. A limited number of additional interviews with executives from consulting and investment banking firms were used to complement the main sample. The cases focused on the firms rather than on particular projects, to address the appropriate level where decision making took place. This assisted in retaining the focus on the experts' views of the TIDM itself, instead of concentrating on the intricacies of each particular project.

The firms were chosen to cover the full spectrum of incumbents, related entrants and unrelated entrants in Internet Banking. Two organisations were used as primary cases, with the remaining eight in a secondary role. The primary cases provided an in depth view of experts' perceptions of TIDM and adequate detail on the underlying processes, rationales and attitudes (Yin, 1989). This picture was then complemented and a measure of generalisation achieved through interviews from secondary cases. (We term this approach the *outrigger model*, as metaphorically the secondary cases help to balance the main body of evidence—the primary cases.)

As illustrated in **Table 1**, a wide variety of expert backgrounds and organisational positions were covered in the interviews. This assisted the analysis (1) to construct a complete picture of TIDM viewpoints and (2) to identify commonalities among practitioners with similar educational and professional backgrounds.

The interviews followed a semi-structured format (Easterby-Smith *et al.,* 1996) that allowed the research to evolve organically from a set of initial research questions as more information became available and a clearer understanding of the problem was developed. Interview findings were then organised by identified themes, recorded in a matrix structure. The themes were revised at each interviews themselves was dynamically adjusted after each interview, in light of identified flaws in the process and new directions offered by respondents. The overall process is depicted in **Figure 2**.

Six main themes were identified following this iterative process. Analysis was performed by reviewing the findings for each interview under each theme and combining responses to interviewees' backgrounds and organisational positions. The six themes together with the key observations from the analysis are summarised in **Table 2.**

Table 1: Characteristics of the Interviewees.

Position	Expertise	Background / Past positions
Head of Strategy & Research – E-commerce & Internet	Banking	Product Manager
Retail Banking Director	Economist,	Public Policy - Academic
Decision Support Manager - Retail Finance	Accountant,	Decision Support Manager - previously in Insurance
IT Security Consultant	IT	Security consultancy & management
Retail Finance - Investment Appraisal	Accountant	Finance, P&L management
IT e-commerce Investment Appraisal	Accountant, Business analyst, Programmer.	IT project manager
Retail Direct Strategy and Planning	IT	Branch EDP
MIS - Group Finance	MIS – IT	Data warehousing / IT implementation
Finance Director	Accountant, MBA	Commercial property, corporate finance, M&A, Business Strategy
IT & Business Design Director	MIS – IT	IT manager / Business Finance
Head of Applications Development	IT developer	Corporate banking IT - Internet Banking development
Head of Business Design -Head of Sales & Service	IT - Marketing	Customer care / IT

Change Management	Banking	Change management / process re-engineering
Head of Commercial Management, Digital Distribution	Banking, Finance	Corporate finance
Finance Team	Actuary	Actuarial technical work / marketing / financial valuation
Associate Director of Corp. Banking	Banking, MBA	Branch - corporate banking / customer relationship
Associate Director, Knowledge Management, Corp. Banking	Banking, IT	Banking IT manager, IT systems / KM
E-commerce Development	Marketing. MSc in Business	E-commerce marketing analyst / business analyst
Internet Sales	Chemical Engineer, teacher	Training, HRM, Internet Sales
Store Marketing Manager	Marketing	Supermarket marketing, financial product marketing
Credit & Risk	Electronic Engineer, MBA	Finance, Credit scoring, fraud prevention, Risk mgt
Business Analyst	Business Studies, MBA	E-business strategy / tech strategy / tech evaluation
Head of Retention / FD	Finance, consultant	FD in Fin. Services
Manager of IT Finance	Finance	Finance roles throughout
Retail Strategy Manager	Mechanical Engineer, corporate mgt training, MBA	Consulting, change management, Strategy
Investment Banker	Banking	Investment Banking
Technology Director	Mathematics, Operational Research	Mathematical modelling, OR in brewing industry, derivatives, trading systems.

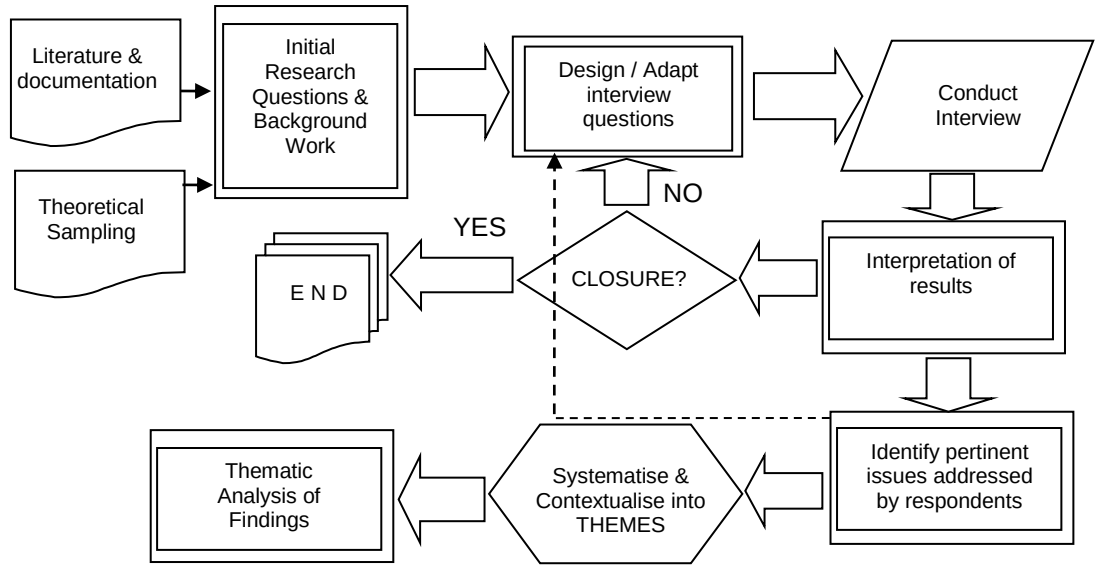

Figure 2: Interview design and development.

Table 2: Interview findings organised by major themes.

	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6
	Establishment of TIDM processes and their applicability	**the perceived importance of technological implementation**	**The development and dynamics of expert groups**	**Organisational structure and built-in hierarchies for decision-making**	**The influence of wider economic cycles**	**The role of knowledge and learning in TIDM**
Conclusion points	Decisions mostly carried out on Strategic grounds	Technology projects seen as pure infrastructure investments	Expertise largely driven from traditional banking culture.	Large organisations are more hierarchical - slower decisions	Changed perceptions of IT valuation since the 2000 decline	Past failures rarely used as learning devices
	Complex documentation of processes	Financial Appraisal done on standardised business predictions	Most managers consider customer-end expertise most pertinent	Large firms more sceptical towards the role of IT	Finance has upgraded role since dot-com bust, as justification rather than evaluation tool.	No resource availability for Knowledge Management is provided
	Processes involve Finance as key element	Costs / benefits are often not exhaustively looked at (largely assumed).	Banks largely driven by risk management culture	Silo approach is most often visible in TIDM procedures	Quantitative rigour used as persuasive argument after the dot-com bust.	Knowledge Management is seen as second priority & something that needn't be formalised
	Processes follow group-wide directives	Uncertainty is treated as risk	IT expertise less pertinent due to outsourcing capability	Finance often used as bottleneck for candidate technology propositions	Reporting drives appraisal at the Profit-Loss Account level.	Post-Implementation Review not a learning device but simple checking mechanism.
	Processes serve reporting structures	IT investment treated differently from different experts	Prevalence of Marketing and IT-savvy, business-minded experts.	Structures defined by traditional management views rather than geared to managing technology	Rationalised 'no-brainers' through more rigorous processes and accountability.	Codification of knowledge considered important but active Knowledge Management is far from reality.
	Project prioritisation driven by Finance	Spilllover effects are not taken into account in measurement	Silo approach reinforces experts' political roles.	Structures in pure-plays flatter & technology – centric	Less radical innovation and more incremental.	Reporting knowledge assets is seen rather pointless.
	Support from the top is the most crucial factor	No IT-specific methodologies are used	Higher position mobility of managers in smaller pure-play organisations.	Hierarchical levels dominated by traditional quantitative experts	Changed perception of IT towards milder expectations.	
	Business sponsor accountability used as safeguard	No attempt to use more sophisticated techniques	The evolution of expertise is dynamic due to job mobility.	Power largely a determinant of TIDM through *negotiation*.		
	Politics used in convincing sponsors through *the Finance function.*	Technology largely used as instrument for political advocacy through TIDM.	Traditional expertise dominant in large banks.			
	Post-Implementation Review done only in failed implementation instances.					

4. Results

The thematic analysis provided in **Table 2** was carried out in conjunction with an extensive investigation of the academic and trade literature to review (1) past empirical evidence on TIDM practice and (2) available methodologies for technological investment valuation. This yielded the following key findings:

a) Although they share a common practical understanding about their organisation's objectives, practitioners entertain disparate views about the right way for performing technological investment decisions, ultimately relevant to their expertise, educational background and past professional training.
b) Despite the existence of a rich body of literature on decision-making (Huczynski, 2004; Mintzberg, 1989; Pettigrew, 1973), empirical research has only rarely addressed the TIDM problem *per se*. In these few cases, (Graham and Harvey, 2001; Brounen et at., 2004; Pike, 1996; Payne at al. 1999) research was limited to examining the extent to which particular methodologies were being used in practice, and did not explore beyond that point.
c) Despite the large number of methods proposed for IT valuation[4] (Renkema 2000, Irani *et al.,* 1997) most were hardly ever used or even acknowledged by the practitioners interviewed.
d) Financial valuation techniques are most often used to favour particular decisions which are advocated mainly on political or strategic grounds. Finance therefore assumes a role of *justification* as opposed to *assessment*.
e) The role of the Finance function in TIDM has historically shifted in importance during different economic cycles. This was vividly demonstrated in the 'dot-com boom' era where IT investment was perceived as a necessary strategic activity; in sharp contrast, during the period that followed, economic justification resumed its prevalence.

These empirical findings provide indications about how Practitioners construct the TIDM problem. A generic form of that procedure is depicted in **Figure 3** below.

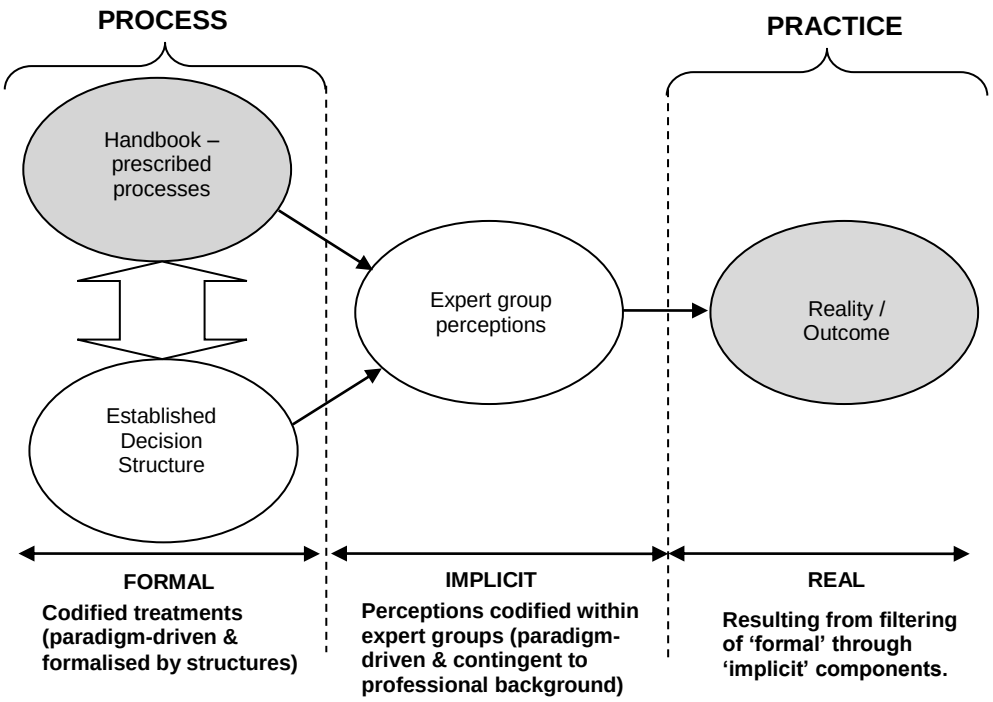

Figure 3: The three components of TIDM: Established Organisational Structure and Handbook-Prescribed Processes are 'filtered' through perceptions to deliver the reality of TIDM in practice. The two ends represent the process-practice dichotomy.

[4] This research identified approximately 80 methods and variants reported in Finance, Economics, Accounting, IS/IT and Technology Assessment literatures.

Figure 3 portrays a clear demarcation between process and practice. First, handbook-prescribed processes and established decision structures, illustrated on the left part of the figure, refer to the *formal* element of TIDM. Handbook-prescribed processes incorporate valuation techniques that are largely derived from academic research. However, these processes are put in place with view to *controlling* decision-making rather than providing accurate evaluation. Established decision structures play a similar controlling role in ensuring that the required levels of management hierarchy are involved and aware of decision progress. Second, perceptions of the TIDM problem that expert groups maintain is an *implicit* element (see middle part of the figure). Such perceptions were phrased as differently-informed views of the professionals interviewed, and depended on their educational background, professional training and position. Such implicit elements, this paper suggests, act as a filter in delivering TIDM *reality* (right part of the figure). The direction that the actual decision takes cannot be determined by formal instruments or structures; on the contrary, it is negotiated by the participating experts on the basis of their understanding of the problem and their interests. Thus we can see that Practitioners use the handbook processes as instruments of justification to advocate their views. Because Practitioners are, in contrast to Observers, *accountable* decision-makers, legitimation of their propositions is necessarily achieved through compliance with the formal processes and structures of their employing firm.

A better understanding about why the large variety of technological valuation methods presented in the literature do not migrate to the Practitioner space can be achieved by considering the two actor classes (Observers and Practitioners) with regard to how they treat TIDM in three different settings: (1) the development of valuation techniques, (2) the development of handbook processes and (3) the decision-making activity. These three cognitive activities may be distinguished in terms of their *purpose*, the *structure* wherein they happen, the *expertise* informing them and the *outputs* they produce. The resulting disparities are illustrated in **Figure 4** and discussed below.

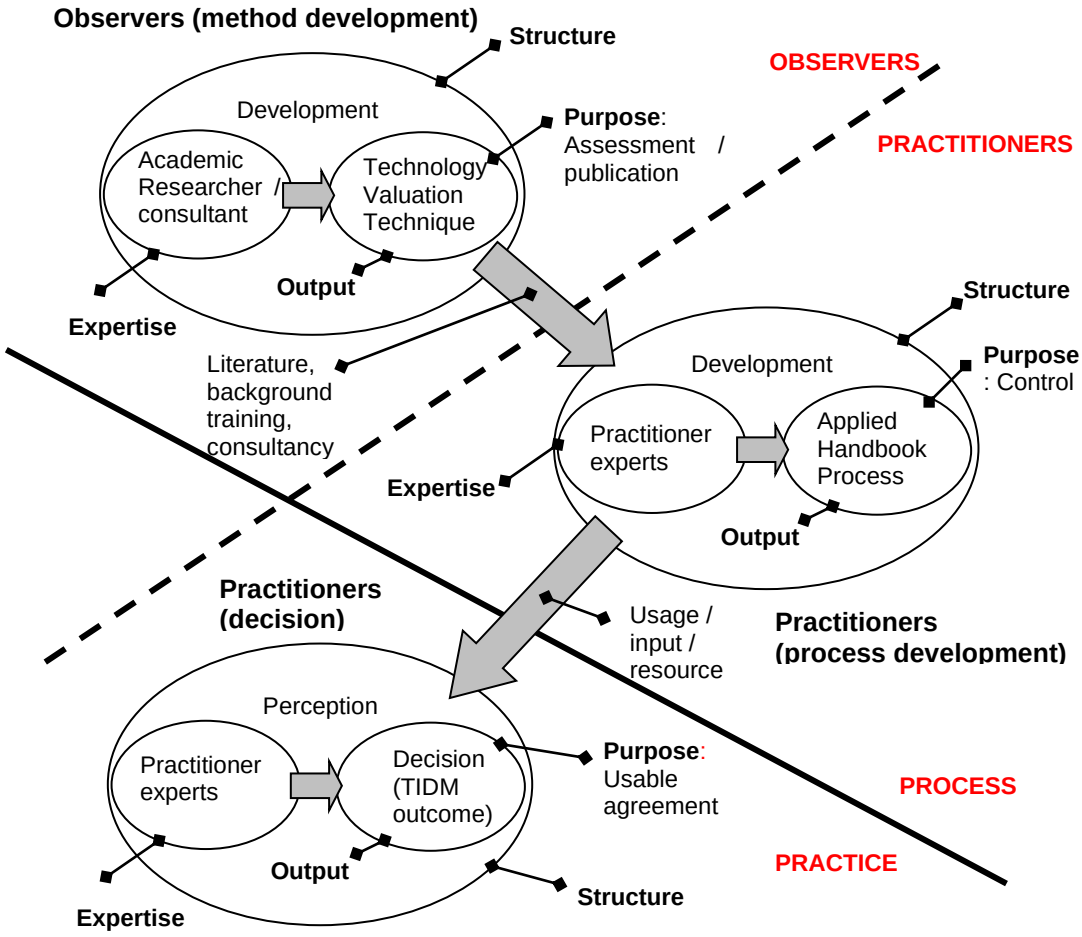

Figure 4: Disparities between the three cognitive activities.

Observers develop technological valuation techniques in an attempt to provide scientifically justified approaches for assessing the value (usually pecuniary) of new technologies. While this is also relevant to Practitioners' working contexts, 'effective assessment' is here defined in the terms of Observers' perceptions of the TIDM problem. And 'effectiveness' is defined in the research-driven culture of Observers' organisations by the degree of rigour, level of detail and compliance with postulates and assumptions of the academic traditions underlying the technique development process. This stance is, in turn, driven by the mission of Observer organisations, and the ways in which experts within them operate to deliver valuation techniques.

This situation contrasts with the development of handbook processes in Practitioner organisations. The scientifically efficient valuation techniques above may be (at least in their more generic forms) practically useful as benchmarking instruments. But the essence of handbook processes for TIDM is to control the stages of technological decision making, not only with a view to tracking erroneous actions but to ensure that the appropriate hierarchical levels of management agree and sign-off the progress of decisions. In this setting, valuation techniques are peripheral: handbook processes do include them, but their design implicitly imposes the preferences (and thus perceptions) of powerful experts residing in the relevant hierarchical levels. Expert-Practitioner knowledge of valuation techniques *informs* handbook processes through the experts' familiarity with the Observers' space via their educational background, access to academic or trade publication or consultancy.

Finally, the practical activity of technological investment decision-making necessarily makes use of handbook processes because these are used to prescribe the desired process of decision-making. Handbook processes work more as a restrictive framework of operation during decision-making, rather than a guideline for delivering effective results. Decision stages, as prescribed by handbook processes, are necessarily adhered to, in order to ensure compliance with formal rules. However, the purpose of the cognitive activity of decision-making is the delivery of a usable informed agreement on technological choice. This is totally different from the one of controlling TIDM progress that handbook processes serve.

5. Conclusions: aggregation vs. integration

This paper presents an empirical analysis of technological investment decisions in UK financial institutions. Our conclusions highlight the disparity between established processes and the actual practice of TIDM, as well as the usability of technological valuation methodologies as facilitators of decision-making.

Practical TIDM is effectively a process of negotiation where informed perceptions about the problem and individual or group interests take precedence. Decision-makers are accountable agents who perform evaluation in attempting to reach a *usable and educated agreement* about the best option for technological investment at any given time. Technology is inherently uncertain as to the costs and benefits delivered, and it is precisely such uncertainty which allows space for negotiation over the merits of different candidate projects. On this account, valuation techniques are inadvertently misused by advocates of opposite opinions through adjusting the underlying assumptions to fit a desired valuation outcome. Positions of such interested parties are ultimately justified, not on definitive "factual" evaluations but on the political support emanating from established expert groups that populate the higher levels of management hierarchies.

Because of the idiosyncratically uncertain nature of technological investments, usable assessments cannot be reached through *aggregating* rigorous methodologies derived from academic research, nor by increasing the level of detail in assessment frameworks presented in corporate handbooks. Instead, it is necessary to *integrate* the valuation activity into a wider socio-economic framework that takes explicit account of the influence of informed perceptions and interests that exist in any decision-making. We believe that the Actor-based Informed Grounded Theory approach can contribute by offering a conceptual framework to elucidate how TIDM is performed in reality and clarify the actual relationship between process and practice.

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