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Notes for Contributors

The *Irish Journal of Management* aims to publish well written and well researched articles that contribute to an understanding of management-related issues from a national, regional and international perspective. The *Journal* welcomes contributions from a wide range of management viewpoints, including inter-disciplinary and multi-disciplinary perspectives, as well as traditional disciplines and functions. Our list of associate editors reflects the breadth of coverage of the journal. Contributions should be accompanied by a statement indicating that the paper is a new submission, that all authors have agreed to the submission to the *Irish Journal of Management* and that it is neither under consideration at another outlet nor been published elsewhere (papers published in conference proceedings are acceptable). If the paper draws on a project that has resulted in other publications, the authors should, in their cover letter, indicate how the current submission differs from previous work.

Specifically, the *Journal* seeks the following types of submissions:

- **Research papers:** Publishing quantitative and qualitative research approaches, literature surveys, conceptual papers and critiques.
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- *Books:* Argyris, C. (1992) *On Organizational Learning*, Oxford: Blackwell.
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- *Articles in journals*: Morrison, E. and Phelps, C. (1999) 'Taking Charge at Work: Extra-role Efforts to Initiate Workplace Change', *The Academy of Management Journal*, 42, pp. 403–19.
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Submissions

Contributions should be typed double-spaced on A4 paper, with ample left- and right-hand margins. A cover page should contain only the title, author's name(s), position(s) and institutional affiliation(s) and the address (one only) to which proofs should be sent, together with full contact details (email, phone and fax numbers). An abstract of 100–150 words should be included on the second page, together with 3–6 key words. To ensure anonymous review, authors should not identify themselves in the text but should include a separate sheet with a short biography of 50–75 words.

Authors are strongly advised to consult one or more recent issues of the *IJM* before submitting manuscripts for publication.

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If you have a query on the suitability of a paper for the *Irish Journal of Management*, please contact the relevant associate editor or one of the editors: Dr David Collings at david.collings@nuigalway.ie or Dr James Cunningham at james.cunningham@nuigalway.ie.

All articles are double-blind refereed. The *Irish Journal of Management* aims to obtain a response to submissions within three months.

An electronic offprint of each published paper and one copy of the journal issue in which it is published is provided free of charge.

Editorial



MARGARET LINEHAN*

This special edition of the *Irish Journal of Management* consists of a selection of the best papers presented at the thirteenth Irish Academy of Management annual conference hosted in Cork Institute of Technology. The 'Renewing the Management Research Mandate' theme of the conference was very relevant in the context of the recent worldwide economic downturn. Many of the papers presented timely evidence and ideas to address management issues in turbulent times.

Approximately 140 delegates from academic institutions in Ireland, Britain, France, Iceland, Switzerland, Australia and the United States attended the conference. The large number of papers presented by academics and postgraduate students were arranged into a number of parallel sessions, including human resource management, organisational behaviour, tourism, teaching and learning, marketing, industrial relations, retailing and wholesaling, strategic management, technology management, accountancy and finance, and healthcare management. Prizes were awarded for the best paper in each of the parallel tracks.

I would like to acknowledge the valuable comments from the various reviewers who contributed to the double-blind refereeing of the papers included in this special edition. I wish to thank Ms Valerie Parker, National University of Ireland, Galway, for her administrative help in compiling this special edition. Valerie's willingness to engage with authors and reviewers and her excellent attention to detail is much appreciated.

Thanks also to Dr David Collings and Dr James Cunningham, editors of the *Irish Journal of Management*, for suggesting this special edition of the journal based on the conference proceedings. Their ongoing work on the production of the journal is to be commended.

I thank my fellow Irish Academy of Management Council members for their support, friendship and camaraderie leading up to and during the conference.

Finally, I would like to acknowledge the help and encouragement from my colleagues in CIT. In particular, I would like to thank Dr Brendan Murphy, president; Mr Damien Courtney, head of faculty, Business and Humanities; Mr Gerard O'Donovan, head, School of Business; Ms Shirley Kingston, administrator; Mr Shane Cronin, multimedia developer, and our postgraduate students who ensured the smooth running of the conference. It was our pleasure to host the conference and to welcome so many delegates to CIT and to Cork.

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From Beyond the Grade: Reflections on Assessments in the Context of Case-Based Teaching



JOHN DORAN,* MARGARET HEALY,* MAEVE MCCUTCHEON* AND
STEVE O'CALLAGHAN*

ABSTRACT

The literature identifies challenges in assessing case-based teaching, including avoiding selectivity and subjectivity, assessing multiple solutions, managing group work, providing timely feedback and motivating engagement. The objective of this study is to consider student and lecturer views on the assessment of case-based teaching, to obtain an integrated view of how such challenges are reflected in the classroom and suggest possible interventions. The methodology involves a multi-stakeholder approach, using student surveys, lecturer reflections and focus groups. The key themes emerging are the interplay between assessment and group dynamics, the relationship between grading and motivation, the experience of informal peer evaluation, deficiencies in the provision of feedback, and differing perspectives on reliability and fairness. The findings highlight the need for clear communication with students, active management of group work, and insights into students' interactions and competitive instincts as a precursor to achieving engagement with the learning activities.

Key Words: assessment; case-based teaching; group work

INTRODUCTION

Crooks (1988), in summarising the early literature on the role of assessment, states that evaluation is one of the most potent forces in education as it signals what is important, affects student motivation and influences the development of learning skills and strategies. Ideally, assessment is both valid, in that it relates to all learning outcomes, and reliable, in that it is both objective and replicable (International Federation of Accountants, 2004).

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However, Herbert et al. (2009) point out that assessment practices can rarely achieve both reliability and validity and that the assessment of higher order learning outcomes driven by active learning approaches may be problematic. If approaches such as case-based teaching are to be successfully introduced and maintained, the problematic nature of their assessment practices must be addressed.

The benefits of case-based teaching as a vehicle for learning both within and beyond the business curriculum are well established (Cullen et al., 2004; Milne and McConnell, 2001). In addition to subject-specific knowledge, the learning objectives of case-based teaching include the development of skills in critical thinking, collaborative learning and communication (Boyce et al., 2001). The literature points to a number of challenges in aligning assessment practices to the learning objectives of case-based teaching (Libby, 1991). These challenges include the difficulty in objectively assessing activities such as group work and presentations, which form an integral part of the case method. In addition, the emphasis in the case method on the validity of multiple solutions rather than just 'one right answer' requires assessment of the learning process as well as the eventual student output.

The research objective of this study is to consider student and lecturer views on the assessment of case-based teaching, with a view to obtaining an integrated view of the manner in which the different challenges identified in the literature reflect the experience in the classroom. Its contribution therefore is the generation of a more coherent and complete picture of the assessment challenges of case-based teaching.

The remainder of this paper is organised as follows. The current literature on case-based teaching and the assessment challenges it poses in practice are described in the next section. The methodology, which involves a rigorous multi-stakeholder approach, using student surveys, lecturer reflections and focus groups, is then discussed. The research setting involving undergraduate case-based teaching over five iterations is described in detail, providing the reader with a context for the research findings that follow. The findings identify key themes which emerge from the data analysis and the implications of these for educators are also highlighted.

LITERATURE REVIEW

The Context of Case-Based Teaching

The use of case study pedagogies has been addressed extensively in the literature. It has been established that the case method has the potential to engage and motivate students, to encourage self-learning and to develop skills in critical thinking. However, challenges to achieving this potential also exist (Libby, 1991). The successful use of case studies requires lecturers to relinquish control and allow students to determine their own approaches, with an emphasis on the process of analysis rather than on the finished product (Adler et al., 2004; Boyce et al., 2001; Healy and McCutcheon, 2010; Wynn-Williams et al., 2008). Typically, case studies will engage the student in a process of analysis, reasoning and decision making, and will also involve small and large group discussions to facilitate interaction with others and presentations which develop skills in communication. These activities offer the means of achieving a set of rich and varied learning objectives but present a

challenge in designing appropriate assessment (Boyce et al., 2001). The alignment of the learning activities (Biggs, 1996) with assessment practices is essential to enable achievement of these objectives.

The Assessment Challenge for Case-Based Teaching

Case-based teaching seeks to deliver higher-order learning outcomes, yet the validity of its assessment is problematic. Herbert et al. (2009) underline the tension which exists between reliability and validity in relation to assessment practices. Reliability in assessment relates to the objectivity or replicability of the assessment process, while validity relates to the applicability of assessment to all learning outcomes. For example, the multiple choice questionnaire achieves reliability and breadth but does not offer a valid solution to the challenge of assessing higher-order learning outcomes. Other approaches, for example oral presentations, which are a feature of case-based teaching, may lead to selectivity and subjectivity (International Federation of Accountants, 2004).

A valid assessment strategy seeks to assess all learning outcomes; however, as Willis (1993) points out, there may be inconsistencies between espoused theory and actual practice. Thus educators may speak of teaching for understanding but this rhetoric will be meaningless if assessment strategies are not context specific and emphasise product rather than process. Assessment of product rather than process is a concern in case-based teaching where students are encouraged to believe that there is 'no single right answer'. It is far more challenging to find reliable methods of assessing questions or problems with multiple approaches rather than with single solutions (International Federation of Accountants, 2004). This can lead to assessment being focused on a narrow range of more measurable outcomes. Gibbs and Simpson (2004) argue that assessment should be primarily designed to support learning and that reliability should be a secondary consideration.

Assessment of Case-Based Teaching in Practice

A desired learning outcome when using case-based teaching is the development of skills in effective collaboration. The benefits of group work from the student perspective in terms of skills and active learning are well established (Ballantine and McCourt Larres, 2007; Cadiz Dyball et al., 2007; Davies, 2009). Collaborative effort or group work is inherently difficult to assess (Cadiz Dyball et al., 2007). Group tasks need to be structured so that individuals have a vested interest in working with each other, rather than simply dividing the assigned task into stand-alone sub-tasks. Efforts to eliminate free-rider and 'sucker' effects (Davies, 2009), for example through the use of monitoring, peer evaluation and learning logs, are time-consuming and have had mixed results to date (Ballantine and McCourt Larres, 2007; Gammie and Matson, 2007). Peer assessment (often discussed in the context of the assessment of group work) can itself constitute a vehicle for reflection and self-evaluation (Gibbs and Simpson, 2004). However, the process of peer assessment is reported as being generally disliked by students, with many having little faith in their own and other students' ability to be informed and fair assessors (Ballantyne et al., 2002). It has also been suggested that peer assessment may lead to other difficulties affecting marking, for example student

reluctance to mark down better students and issues concerning friendship (or personal dislike) and collusion (Ballantyne et al., 2002; Pond et al., 2007).

Formative assessment or feedback has the potential to yield substantial learning gains (Black and Wiliam, 1998). MacLellan (2001) suggests that many students find feedback as received to be much less useful than lecturers anticipate. Its impact appears to be reduced by being either too soon or too late after the assessment, by being infrequent and by being accompanied by grades (Gibbs and Simpson, 2004). Given its less structured format relative to other learning activities, case-based teaching may not provide opportunities for timely feedback. The provision of meaningful feedback is extremely resource intensive and is increasingly problematic as class sizes increase (Gibbs and Simpson, 2004).

Students may also be reluctant participants in case-based activities, with assessment used as a motivator for engagement. For example, accounting students, who tend to be introverted and individualist (Booth and Winzar, 1993), may not willingly participate in group work and presentations, but may be motivated by assessment to do so. Assessment motivates their participation but this is not necessarily sufficient for engagement and deeper learning. Rust (2002) points out that where a task has little relevance or importance beyond assessment, then evidence suggests that students will take a surface approach to its completion, simply 'learning for assessment'. Rust (2002) further suggests that motivation beyond assessment is essential for engagement. Volet and Mansfield (2006) argue that students whose personal goals extended beyond performance to include learning and social issues respond more positively to challenges such as group work.

In summary, the literature has identified a number of challenges which arise in assessing case-based teaching, including avoiding potential selectivity and subjectivity in the assessment of activities such as presentations, assessing the process of arriving at multiple solutions rather than the output of a single right answer, managing issues such as free-rider activity in group work, providing timely feedback, and motivating engagement as well as participation. The research objective of this study is to consider student and lecturer views on the assessment of case-based teaching, in order to obtain an integrated view of the manner in which these challenges are reflected in the experiences in the classroom. Its contribution therefore is the generation of a more coherent and complete picture of the assessment challenges of case-based teaching.

RESEARCH METHOD

This study explores student and lecturer views on the assessment of case-based teaching. The specific context in which this study takes place is that of the teaching of accounting and finance, using case-based methods, at one Irish university. Student views of each case session were gathered via an anonymous survey administered at the end of the class. In summary, students were asked a series of open-ended questions regarding what they felt they had learned in the class, what aspects worked well and didn't work well, and what changes could be made, both on their own part and on the part of the lecturer. There were no specific questions on assessment; therefore contributions in relation to assessment were unprompted. The questions were designed to be as broad as possible and specifically were

not drawn from the literature to avoid any researcher preconceptions that might limit the student response. Table 1 summarises the response rates to the student survey for each of the five case sessions reported in this paper. In total, 52 per cent (144 of 277 respondents) of the students raised assessment as an issue in their responses. The use of open-ended questions, whilst more time-consuming to analyse, allowed students to answer in their own terms, unconstrained by researcher perceptions of possible responses (Brennan, 1998; Bryman and Bell, 2003) and was deemed appropriate given the exploratory nature of the underlying research objective (Saunders et al., 2009).

Table 1: Student Survey Response Rates

	Class Size	Response Rate	Response Rate %	Number Raising Assessment
<i>Case 1: 'WorldCom'</i>				
Iteration #1	84	79	94%	66 (83%)
Iteration #2	37	33	89%	20 (61%)
<i>Case 2: 'Cadbury Schweppes'</i>				
Iteration #1	84	67	80%	21 (31%)
Iteration #2	47	35	74%	14 (40%)
<i>Case 3: 'The Bakery'</i>	72	63	84%	23 (36%)

In addition to the student surveys described earlier, three student focus groups were also conducted. Focus groups offer the advantage of allowing the views of a number of participants to emerge and for others to react and respond to those views, lending breadth and depth to the research evidence (Bryman and Bell, 2003; Saunders et al., 2009). The first focus group took place after the first iterations of Cases 1 and 2, the second after the second iterations of Cases 1 and 2 and the final focus group after Case 3. In each instance students were randomly selected from the class list and invited by email to participate. Each focus group was conducted by members of the research team who had not been involved in the delivery of the case sessions under discussion. The protocol followed in all groups was the same. Students were given generalised prompts and discussion of assessment was instigated by the students, rather than introduced by the focus group facilitators. The discussion was audio recorded with the prior permission of the participating students. In addition, one researcher made notes of the discussion on a series of flip chart pages visible to all participants, thereby increasing researcher confidence in the development of an accurate understanding and reflection of the experiences being described (Saunders et al., 2009). The conversations were transcribed and independently checked against the original recording by each of the researchers, to ensure not just a concise reproduction of the conversations, but also to appreciate a sense of the nuances and emphasis placed on those words by individual students.

Three of the researchers were directly involved in teaching the case sessions. Each lecturer recorded their expectations and concerns prior to the case session and their

reflections immediately after each session before having sight of any of the student data. The use of this multi-stakeholder approach to addressing the research objective was chosen to bring greater rigour and balance to the research evidence.

THE RESEARCH SETTING

The research study took place during the academic year 2009/2010. The specific setting of the research was the teaching of three case studies: a corporate governance case (WorldCom) over two iterations, a corporate finance case (Cadbury Schweppes) over two iterations and a management accounting case (the Bakery) over one iteration. The cases were used in mixed classes drawn from the third and fourth years of a variety of business undergraduate programmes. Detailed assessment protocols for each case are shown in Table 2 and described in the paragraphs that follow.

Table 2: Assessment Protocols for each Case Session

Case	(1) WorldCom	(2) Cadbury Schweppes	(3) The Bakery
Pre-class	Groups of six students prepare seven motions for debate <i>Not Assessed</i>	Groups of six students prepare a statement for a board meeting based on a pre-assigned role <i>Not Assessed</i>	Groups of three students identify key strategic concerns from the perspective of an assigned family member; submit these to lecturer <i>Assessed</i>
In class	Groups are assigned a single motion and select one member to debate that motion <i>Assessed</i>	One group member participates in board meeting to decide on merger <i>Assessed</i> Groups then reconvene and vote on merger	Groups of twelve meet to decide family strategy; decisions presented to class as a whole by group representatives <i>Assessed</i>
Peer evaluation	Class votes on winner of each debate <i>Not Assessed</i>	None	Class evaluates each group; outcome of evaluation circulated <i>Not Assessed</i>
Post-class	Group submits an integrative assignment <i>Assessed</i>	Group submits an integrative assignment <i>Assessed</i>	Students sit individual interim exam <i>Assessed</i>

Group work was a key component of the teaching approach used for all classes in the research study. It was viewed by the lecturers as being particularly appropriate to case

study analysis and necessary for a student body whose prior experiences have been almost exclusively oriented toward individual effort and achievement. For each case session the lecturer decided on the group composition. Group size was typically six students, although in the bakery case groups of three were formed for pre-class work and subsequently combined to form groups of twelve for the in-class activities. For each session the output of the group work was assessed but there was no assessment of the process, which was typically unobserved. For the bakery case group work accounted for 30 per cent of the assessment with an individual examination accounting for the balance. For the other cases the entire assessment comprised elements of group work.

For each case session the lecturer sought to create opportunities for structured interaction (Pearce, 2002) as a means of both developing soft skills and exposing students to multiple viewpoints. In the WorldCom case this took the form of a series of debates on seven different motions concerning the actions of the individuals in the case. A representative of each group was required to debate one of these motions. While all seven motions had been provided in advance the groups were not assigned their specific motion for debate until the class itself. Part of the group's overall mark was determined by their representative's conduct in the debate. For the Cadbury Schweppes case a board meeting was held and a representative of each group attended in a role which had been assigned in advance. The representative's individual contribution at the board meeting formed the basis of one part of the assessment. For the bakery case, students in groups of twelve formed family councils with the objective of agreeing future strategy for the bakery. Assessment in this instance was based on the presentation to the class as a whole of the strategy emerging from the group by self-selected representatives. In addition to the assessment of activities in class, written group work, submitted in advance of the class for the bakery case and post-class for the other cases, was included in the grading process.

Some informal elements of peer evaluation were included in the WorldCom and bakery cases. In the WorldCom case the class as a whole voted on each motion to determine which speaker's group had 'won' the debate. In the bakery case students were asked to grade each presentation based on content, visuals and oral presentation. These evaluations were not factored into the final grade but their outcome was circulated to the students.

In each instance the case session class was constrained to a single two-hour timetabled slot. Traditional teaching rooms were used for the assessed in-class activities. The pre-class activities were assigned one week in advance of the class and the students were given one week for the follow-on activities. Approaches to feedback varied between cases and between different iterations of the cases. Generally the lecturer chose not to interrupt the flow of the class by intervening to correct individual errors or comment on individual contributions. In some instances general feedback was given during class which either praised specific aspects of the analysis or corrected common errors. More detailed feedback was given in the weeks following the case session class. Students were also informed that they could seek specific feedback from individual lecturers on their group's performance.

RESEARCH FINDINGS

The key themes in relation to assessment which emerged from analysis of the student surveys, focus group meetings and lecturer reflections related to the interplay between assessment and group dynamics, the relationship between grading and motivation, the experience of informal peer evaluation mechanisms, deficiencies in the provision of feedback, and differing perspectives on reliability and fairness. Each of these is discussed in the following paragraphs.

The Interplay between Assessment and Group Dynamics

Students clearly recognised the benefits of working in groups. These benefits were commented on more frequently by students participating in sessions where group work was in class, was observed by the lecturer and where the groups were forced to come to a conclusion within a fixed time period. The group size preferred by students was three or four members. Where groups in this study were significantly larger the student preference was to downsize in that direction, for example from seven to five.

Three is a perfect number really ... three is very good, yeah ... you agree on everything, you never really have arguments 'cos it's always going to be two against one so ... (general laughter).

Logistical issues were important to students in relation to the composition of work groups. Students found it easier to organise group meetings with students who had similar timetables to themselves (and by implication were following the same degree programme). On balance there was a weak, but not overriding, preference for self-selection of group members and for settled groups over time. One student stated:

It just means you know what each person is good at. You can say, right, well would you do this because you did that last time, and you start to know [what] people are capable of. It just makes it that bit more efficient.

An obvious issue that arises with group work is the division of work within the group and what recognition, if any, the assessment should give to the resultant differential contributions and efforts (Davies, 2009; Volet and Mansfield, 2006). The literature argues that individual assessment undermines the ethos of teamwork (Adler and Milne, 1997). However, it also recognises the issue of unequal contributions and the free-rider problem (Brooks and Ammons, 2003; Davies, 2009). Some advocate the use of mechanisms such as peer assessment to arrive at individualised differential marks within a group (Pond et al., 2007); however counter arguments also exist (Ballantine and McCourt Larres, 2007). None of these mechanisms were used by lecturers in the study and students were rather dismissive of their effectiveness. In fact, students displayed quite sophisticated insights into the possibilities offered for 'gaming' such mechanisms during group formation:

You want to pick somebody weak 'cos you get double the marks.

Free-rider issues were also mentioned: students appeared to accept them as an inevitability of group work and were sceptical of the standard solutions adopted:

But if you just had a peer evaluation form ... if you knew that there was some mark going for what you're actually putting in. ... But it would really have to be investigated like - you couldn't just take the marks. ... What would happen to somebody that was doing a lot of work that they were the only people that knew about and then was just shy at meetings. ... I suppose there's no way perfect, but ... it needs work.

You rate the person that you were with - but everyone just gives each other five because you're [all] there when you're writing it down.

The Relationship between Grading and Motivation

While assessment marks are clearly a strong motivator, the findings of this study suggest that students also valued opportunities to develop soft skills and responded to the opportunities offered for peer approval in a group work setting. Some of the tasks, for example the role-playing of board members, were not specifically assessed but were taken very seriously by the students. Students appeared to identify with the characters or motions they were championing and were anxious for their point of view to prevail or 'win'. Those activities that had been deliberately set up to ignite the competitive streak within the class did seem to motivate.

In reflecting on the design of the course assignments in advance of class, one lecturer in particular expressed concern about a relatively smaller workload required for the given level of marks awarded for the case assignment relative to assignments in previous years:

I would still have a concern that the amount of work required is small relative to a traditional (for me) form of continuous assessment; however the benefits of this session, in enhanced student interest and engagement, actively working in groups, and combining a broad and deep analysis of the merger, outweigh this concern.

As it turned out, the outputs and the observed processes in the debate and large group discussions indicated that students' level of preparation and analysis went beyond what would be expected based on experience of other forms of assigned work such as essays and written projects. There appeared to be an element of students wanting to impress their peers which enhanced their efforts, or alternatively the students may simply have found the tasks more stimulating.

The concern of the students in relation to workload relative to grading had a different emphasis and centred on unrewarded effort where only some aspects of the preparation were apparent. For example, one student stated:

The lecturer should make an effort to ask a few questions to each group; it would give people a chance to stand up for themselves and show their preparation.

Students take a short-term approach to their time management, skipping lectures and tutorials to complete assigned tasks, even while recognising that they are missing material with longer-term consequences:

You put hours and hours into a case you know, getting it perfected, and then you can just ruin all that with one bad exam ... because you don't have time to study for the exams, because you put so much time into the case, basically.

The Experience of Informal Peer Evaluation Mechanisms

No formal peer evaluation was included in any of the assessment protocols but two informal mechanisms were used: the voting system in the WorldCom case and an informal evaluation process in the bakery case. Interestingly, the competitive instincts of students were aroused even when they were explicitly made aware that no marks would be awarded for these evaluations. For instance, where the class protocol included a vote on each motion under debate students tended to vote in support of classmates rather than on the merit of the points made, even though the vote had no impact on grading. This action also evoked quite strong feelings in survey responses even though it was the element of the class activity most under student control. Competitiveness and class loyalty outweighed objective faculties to the extent that significant numbers of students criticised their own behaviour:

The voting system – totally biased; people vote for people in their course – FACT!

Ensure no block voting that was apparent today – like the Eurovision.

Some people in other groups did not take the scoring card seriously, e.g. giving some groups minus marks.

Another issue that was of concern to the students was the importance of 'preserving face'. Irrespective of the presence or absence of formal peer evaluation, students wanted to be seen by peers to perform well, while avoiding appearing unprepared or unprofessional. The payoffs at either end of this spectrum ranged from pride to embarrassment. These issues were reflected in comments such as:

You know other people know it as well, so they'll pick out any mistakes.

You're on the spot; you're making a fool of yourself if you get it wrong.

Deficiencies in the Provision of Feedback

The difficulty of giving valid on-the-spot feedback to the students was an issue of concern to the lecturers. Time constraints and the pressures induced in the process of absorbing content and reflecting on it as it is delivered meant that for the lecturers there was a real

missed opportunity to provide formative feedback, not just to the presenter, but to the class as a whole. This was described as follows:

Personally I would like to have been able to contribute after each motion by way of summary or highlight. This was not done due to (a) time constraints, (b) need to keep up continuity and (c) fairness across groups as the feedback could potentially have given advantage to later groups if they were quick enough to follow the trend of feedback and amend the verbal aspects of their presentation accordingly.

I am processing several ideas simultaneously and none of them very well; considering the students' oral presentation skills, reading their content from the screen, grading and time-keeping. I'm listening and reading, reflecting and preparing feedback.

There was also a tension felt by one lecturer between the need to recognise that there are 'multiple valid approaches' and the need to correct basic errors which could serve to mislead and confuse other students. Equally, there was the issue of providing affirmation and encouragement to inexperienced student speakers, in particular as the strategy adopted by many of the student groups resulted in them putting forward a spokesperson on a basis unrelated to who was their best or most confident speaker.

The desire for greater feedback following the release of grades awarded was also raised by students. Despite lecturer concerns regarding the bunching of grades, students still requested feedback as to the reasons why their particular group had achieved a lower mark than another group, even when the percentage gap was so small that it would have virtually disappeared in rounding when the aggregate module mark was calculated. From the student perspective (or at least the perspective of those who raised the issue), the grade relative to that of peers was highly significant. It should be said, however, that the student queries, although prompted by relative grades, were focused on feed forward concerns of how they could do better in the future rather than seeking to change the mark awarded:

You know, you might put an awful lot of work into an assignment, and you might get only an average mark, and you mightn't know where you went wrong, and you might sit down and do the next assignment, and do it the exact same way. You're not learning anything. I think there should definitely be a lecture after an assignment had been marked to give feedback.

He [the lecturer] said that if you want to come up and ask me about the presentation, come up. Well, if I hadn't done that, well I wouldn't have known what I did wrong like. ... I didn't know if it was the presentation or what was wrong.

Differing Perspectives on Reliability and Fairness

The difficulty in developing reliable marking schemes for activities which combined soft skills, for example presentation and role-playing, with analysis, was a concern expressed

by two of the lecturers prior to the case sessions. This concern was compounded in their minds by the potential free-rider issues inherent in group work. A consequence of the concern with the reliability of the assessment metrics was a relative bunching of grades awarded. This did not arise when the bulk of the assessment was in the form of a standard written examination but it was notable with the other two protocols (the debate and the board meeting).

Students, while alert to the potential free-rider issues discussed earlier, were more concerned with fairness rather than reliability, and in particular with inter-group fairness. They noticed and appreciated equitable treatment. For instance, in the debate format the lecturer was strict in the implementation of time limits and this was commented on favourably by many students:

Equal time per group so everyone was one, the same level, and no advantages.

Students also commented on perceived problems with assigning tasks of varying levels of difficulty to different groups – a consequence of lecturers' attempts to provide variety in assigned tasks and to maximise the learning experience for all students from in-class presentations. For instance, one student's reaction to this in relation to the debate protocol was to state:

[need to] be luckier and get an easier topic than trying to defend the indefensible.

Students offered original insights on the concept of intra-group fairness within project groups. While the literature may emphasise the free-rider issue discussed previously, the students raised a different set of concerns that might be loosely termed as the 'burden on one' – in a sense almost a converse, or negative, of the free-rider issue. This is where an undue workload or representative burden is placed on, or falls upon, a single group member. It arises both in summarising tasks and in presentations where a full group is represented by a single speaker. Some group members are disempowered in large class settings where it is impractical to give everyone a chance to speak. Students stated:

There's a lot of emphasis on just one person in the group. ... If that person does a bad presentation, say, then it's affecting the other four people as well.

Like you know if marks are going for it in a group then you don't want to be the one to go up and have a bad presentation and then be blamed for everyone else not getting good marks.

There is a dual aspect to this issue: as well as the burden on the group representative, there is also the issue of the unassessed contribution of the other group members and the relative invisibility of their efforts.

As a team member who researched and prepared to speak on three topics, but [these three] didn't come up, I feel it may be slightly unfair.

An additional issue, related to perceived fairness, was the students' sense of whether they were adequately prepared for what was in store for them:

I didn't feel informed enough about what was going to happen on the day; it was a lot more relaxed than I thought it was going to be. I thought it was going to be a formal debate type of thing, like the groups, but it was a lot more relaxed, yeah. ... I'd say we'd get more out of it if we went back and did that similar format again, now that we know what it involves ... 'cos when it's written down on a sheet, ok! I remember when we got it first. What ... what is going on here?

It is interesting to note how this sense of the importance of knowing the rules of the game relates to more than assessment; it also relates to the level of engagement with the process as a whole.

DISCUSSION AND CONCLUSIONS

The research objective of this study is to consider lecturer and student views on the assessment of case-based teaching, in order to obtain an integrated perspective on the manner in which the different challenges identified in the literature reflect the experience in the classroom. In summary, the lecturer and student views of assessment in the context of case-based teaching broadly support the position advanced in the current literature, but go further in some instances.

Students and lecturers recognise the benefits of group work. Many of the problematic areas in group work (for example free-rider issues) were identified in the responses but existing solutions, such as peer assessment, were not advocated by the research participants. Both groups believed that the implementation of group work needs further development, particularly regarding the composition of groups and the oversight of group activities. It is important therefore that lecturers considering the use of groups as part of case-based teaching prepare to actively manage the process and develop mechanisms for observing group work.

This research study also gives insights into the complex world of student interactions. The effort and anxiety which the students displayed in these exercises was disproportionate to the marks allocated and seems to some extent at least to relate to the strong motivating influence of peer esteem. This may also explain a pre-occupation with the professional appearance of their slides, the unwillingness to critique each other's work and the participation in dysfunctional behaviour, however reluctantly. Group pressures may be particularly marked with these students as they spend up to four years together in cohesive class groupings (being quite homogeneous in age, ethnicity and geographical origin, and often required to follow the same, or similar, module sequences). Comparative

research in the future may reveal whether this cultural and social context results in stronger loyalty to peers, less weight to self-interest and loyalty to objective standards than is experienced elsewhere. A greater understanding of the dynamics of peer interaction could lead to better informed strategies for encouraging peer learning in the classroom and more effective regulation of collaborative learning.

The literature points to the difficulty in using assessment to motivate students to move beyond mere participation towards engagement with the learning activities. In this study, for many students engagement with the learning activities appeared to stem as much from their perceived value in terms of workplace skills as it did from a desire to gain marks. To some extent this reflects what Rust (2002) and Volet and Mansfield (2006) have to say about the importance of the inherent value of the learning activities; after all, assessment can only do so much. However, one neglected aspect of motivation is competitiveness, which was revealed in this study through pre-occupation with the relative grade and the importance of the non-graded peer evaluations. The literature emphasises individual learning against an objective standard of targeted learning outcomes. In this context student interest in comparative grades is either ignored or seen as undesirable. However, such an egalitarian view of education is at odds with the highly competitive work environment that many students are preparing for, particularly in professional fields like accounting, where relative as well as absolute performance is routinely assessed. If this competitiveness can be effectively harnessed, case-based teaching can be used more effectively to motivate deeper learning. However, student behaviour when motivated by competitiveness can become dysfunctional. In this study, for example, the informal peer evaluation mechanisms led students to simultaneously vote in a biased manner and complain about their collective behaviour in so doing. The findings to date suggest that attempts to harness the students' competitive instinct need to be sensitively implemented. Further research is needed to empirically investigate and develop a greater understanding of the manner in which students are motivated by the nature of the learning activities themselves, as opposed to the assessment of those activities.

As predicted in the literature, the provision of appropriate feedback was viewed as problematic by lecturers, given the need to recognise and encourage multiple valid approaches. The desire for feedback was also raised by students. However this issue related primarily to feed forward concerns, i.e. how they could do better in the future. This suggests the need for lecturers to provide clear signposting to students at the outset of their expectations in relation to the various activities which constitute the case-based teaching experience. Future research in the area of feedback would benefit from focusing on the need to communicate expectations to students prior to as well as subsequent to the completion of tasks.

The literature discusses reliability in relation to the application of grading metrics which are replicable and defensible. While lecturers in this study displayed similar concerns, students appeared to take as given the reliability of the grading process and were more concerned with issues of fairness. The sense of the importance of fair play goes beyond the well-documented concerns with free-rider problems to a broader concern over whether

marks reflect effort. Students appear to accept that some social loafing is inevitable but are more concerned where efforts are not rewarded and where one student's performance, for good or ill, determines the grade of the group as a whole. They appear to see it to be more problematic where their own grade does not reflect their own efforts than when their efforts are reflected in another classmate's grades. Their concerns were that the assessment criteria be evenhandedly applied and that they be adequately informed of the assessment protocols and lecturer expectations in advance. Here again, this suggests that one avenue for improvement is to focus on greater communication and transparency to signal to students the rules of the game. While such rules may be flawed in objective terms they can still provide a valid means of assessing learning outcomes, acceptable to student and lecturer alike.

This study brings together many of the different challenges of the assessment of case-based teaching identified in the literature and also highlights a number of aspects of the assessment process which were not previously developed. In particular, it emphasises the need for clear communication with students in relation to the nature of case-based learning activities and the assessment metrics to be used. It calls for more active management of group work as a means of realising the potential benefits of collaborative learning. It points to the need for a greater understanding of students' competitive instincts and the nature of their interactions as a precursor to attaining engagement with rather than participation in the learning activities.

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A Capability-Based Framework for Tourism Innovativeness



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ABSTRACT

Drawing on the strategic management, innovation, tourism, marketing and organisational behaviour literatures over the past 50 years, we propose a resource-based (Barney, 1991) and dynamic capability (Wernerfelt, 1984; Teece et al., 1997; Eisenhardt and Martin, 2000) research approach to theoretically explore how small tourism firms can manage and reconfigure their existing pool of resources through their innovative capabilities to deal with the turbulent environment in which they are embedded. This paper conceptually examines and schematically models the impact of the dynamic capability of firm-level innovativeness on sustainable competitive advantage.

Key Words: tourism; dynamic capabilities; firm-level innovativeness; sustainable competitive advantage

INTRODUCTION

Tourism is an important sector and has a critical role to play in contributing to Ireland's economic recovery. It is Ireland's largest indigenous industry, contributing in excess of 4 per cent of gross national product and providing employment for over 200,000 people throughout Ireland (Tourism Ireland, 2010). Notwithstanding these positive features, the landscape is changing, and the Irish tourism industry is at a significant turning point in its evolution (Irish Tourist Industry Confederation, 2010). Tourism represents a highly volatile industry and Ireland is in fierce competition with international tourism destinations (Tourism Ireland, 2010). Hence, the ability to continuously innovate is increasingly viewed as the single most important factor in developing a sustainable competitive advantage (hereafter SCA) in tourism firms (Stamboulis and Skyannis, 2003).

Due to its high velocity, tourism is extremely susceptible to environmental changes, with the entire industry currently facing strong and ongoing competitiveness challenges. The onset of the economic downturn in 2007 has impacted negatively on many tourism

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businesses, with the associated challenges of competing with low-priced hotels and coping with high labour costs and high fuel costs exacerbating what is perceived as an already difficult business environment (Irish Hotels Federation, 2010). Furthermore, it is argued that some growth in more clement economic times may have masked underlying problems such as lack of labour competitiveness and an overconcentration on non-leisure visitors (Tourism Renewal Group, 2009). Indeed, looking at 2009 data the entire island of Ireland suffered a 12.1 percentage decline in arrivals based on the performance of the first nine months (Irish Tourist Industry Confederation, 2009).

There was a double digit decline in visitors from the most important market, Great Britain, with purchasing power parity and ground transport difficulties playing a significant role (World Economic Forum, 2011). Despite recent government assistance in the form of reform of the travel tax and the continuing efforts of Fáilte Ireland and Tourism Ireland to develop the industry, recent analysis based on overseas market intelligence, industry feedback and analysis of arrivals data all hint at challenging years ahead.

One mechanism through which revitalisation of the tourism industry is posited to occur is through the development of creativity and innovation within the industry. Innovation is increasingly receiving attention at government policy level with the Irish government using the planning framework of the smart economy to embed a culture of innovation within the tourism industry (Government of Ireland, 2008). Fáilte Ireland has also called for a heightened level of 'innovation' across the tourism industry in order to surmount the detrimental effects of lost competitiveness in recent years (Government of Ireland, 2007). Although government and policy makers have called for a heightened level of 'innovation', the traditional focus has nevertheless been on producing once-off product or service innovations as opposed to fostering an overarching organisational innovative culture, climate and mindset within tourism firms. Therefore, different from prior innovation studies, we argue that although innovation is vitally important for economic growth and recovery, it is the ability of the tourism firm to effectively build and manage a strategic innovative capability structure that determines *sustainable* growth and competitiveness.

Drawing from an extensive literature review encompassing conceptual and empirical research within the confines of the resource-based view (RBV) theory and dynamic capabilities, the present study investigates the relationship between organisational resources and firm innovativeness to achieve SCA. In essence, we propose that firm innovativeness is a transformational capability which can deliver an SCA through the reconfiguration of a firm's internal resources. The purpose of this paper is two-fold. Firstly, it aims to conceptualise tourism innovativeness within a capabilities-based framework in order to assist in developing further understanding of the innovativeness construct, and identify its role in surmounting the detrimental effects of lost competitiveness. Secondly, the proposed approach aims at providing a capabilities perspective of tourism firm innovativeness. This contributes towards the current debate in the tourism innovativeness literature on adopting a more innovative approach to tourism management (Hjalager, 2002; Novelli et al., 2006; Pechlaner et al., 2006). Jordan and O'Leary (2009) caution that it is important to

focus on the innovation capabilities of all business sectors, rather than only focusing on the high technology sectors.

The rest of the paper is structured as follows. In the next section, the authors examine extant definitions of firm-level innovativeness and propose a new, multidimensional conceptualisation. Next, we introduce the theoretical background of the study. Subsequently, we examine the criticality of innovativeness in restoring tourism firm competitiveness. Next, we conceptually explore the organisational resources that may be sources of SCA, followed by our conceptual framework. The paper concludes by offering the key contribution and implications of the study.

FIRM-LEVEL INNOVATIVENESS

At present, the innovativeness literature represents a very fragmented corpus, with many different definitions and conceptualisations being offered by various researchers coming from diverse research disciplines ranging from marketing to economics, from psychology to management. Consequently, theory has failed to advance clearly defined conceptualisations of innovativeness, and thereby a unified and valid measure is yet to emerge (Avlonitis et al., 1994). The term, over time, has come to be used in a rather general and loose manner, with a multitude of definitions emerging from various strands of literature (Lam, 2004). As a result, there is currently no generally accepted or unifying definition and theory of firm-level innovativeness, but each definition depends on the individual researcher's interpretation and research agenda (Garcia and Calantone, 2002). In addition, the term 'innovativeness' has been used interchangeably and synonymously with the term 'innovation'. Some have distinguished innovation from innovativeness (Garcia and Calantone, 2002), while others have argued for the interchangeable perspective of these two terms (Damanpour, 1991). We agree with the former, arguing that these are theoretically distinct concepts that should be separated from each other, and past failure to do so has prevented researchers from developing a clear understanding of innovativeness and its different dimensions. To summarise, *innovation* is typically defined as an outcome-oriented measure, such as 'new product success' (Ayers et al., 1997), while *innovativeness* is recognised as a contextual variable representing the firm-level orientation, proclivity or inclination towards innovation (Menguc and Auh, 2006; Hurley and Hult, 1998). Innovation is characterised by the organisational actions of adopting and executing 'newness' in an arbitrary manner, whereas innovativeness reflects the degree of an organisation's propensity for doing innovation (Chye et al., 2010). Thus, innovation is a tangible and explicit concept, whereas innovativeness is intangible and implicit to the individual organisation.

Since the vast majority of studies do not offer a very strong definitional or theoretical foundation for the innovativeness concept, the question 'What is organisational innovativeness?' remains a complex research issue. Nevertheless, if the notion of firm-level innovativeness is to be useful, it is important to be clear about what we mean by the term, since failure to specify it clearly leads to confusion and misunderstanding.

Table 1 provides a selection of extant definitions and conceptualisations of innovativeness, illustrating the ambiguity and confusion which prevails in the literature caused by weak conceptualisations, taxonomies and the inconsistent and conflicting use of terminology.

Table 1: Extant Definitions and Conceptualisations of the Firm-Level Innovativeness Concept

Author/Study	Definition/Conceptualisation
Hurt et al. (1977)	Willingness to change
Zaltman et al. (1973); Hurley and Hult (1998)	Proclivity, receptivity and inclination to adopt ideas that depart from the status quo
Kundu and Katz (2003)	Intention to be innovative
Stamboulis and Skyannis (2003); Hjalager (1997)	Some behavioural change in response to a stimulus
Menguc and Auh (2006); Wang and Ahmed (2004); Avlonitis et al. (2001)	Willingness to forgo old habits and try new, untested ideas, representing a firm's ability to exceed routine thinking processes, going beyond the obvious to discover newness
Lumpkin and Dess (1996)	Tendency to engage in and support new ideas, to experiment and to be creative
Marcati et al. (2008); Blake et al. (2003)	A 'generalised readiness' to follow new ways and be creative
Hurley and Hult (1998)	A 'cultural readiness' and openness to innovate or to adopt new ways of doing things
Hurley and Hult (1998)	Ability to adopt or implement new ideas, processes or products successfully
Avlonitis et al. (1994)	Technological capacity and behavioural willingness and commitment to innovate
Hurley et al. (2005)	A 'cultural precursor' that provides the 'social capital' to facilitate innovative behaviour
Hult et al. (2004)	Capacity to introduce new processes, products or ideas to the organisation
Garcia and Calantone (2002)	Degree of 'newness' of an innovation

Following an inter-disciplinary review of extant conceptualisations, we found that although an unambiguous definition of innovativeness does not exist, most researchers generally agree on the following dimensions: creativity, openness to new ideas, intention to innovate, willingness to take risks and capacity to innovate (see Table 2).

Table 2: Key Dimensions of Innovativeness Emerging from the Various Conceptualisations and Respective Authors

Dimension	Authors
<i>Creativity</i>	Amabile (1998); Amabile (1997); Amabile et al. (1996); Amabile (1996); Amabile (1988); Avlonitis et al. (2001); Dertouzos (1999); Feinstein (2006); Ford (1996); Goldsmith and Flynn (1992); Gumusluoglu and Ilsev (2007); Hirschman (1980); Hult et al. (2004); Hurt et al. (1977); Lumpkin and Dess (1996); Marcati et al. (2008); Markides (1998); Menguc and Auh (2006); Oldham and Cummings (1996); Reckhenrich et al. (2009); Salavou et al. (2004); Shalley et al. (2000); Shalley (1991); Steenkamp et al. (1999); Sundbo et al. (1997); Tang (1998); Tierney et al. (1999); Wang and Ahmed (2004); Woodman et al. (1993); Yusuf (2009); Zhou (2003)
<i>Openness to new ideas</i>	Ahmed (1998); Amabile (1997); Amabile et al. (1996); Cotte and Wood (2004); Digman (1990); Foxall (1995); Gold (1981); Goldsmith and Hofacker (1991); Hurley and Hult (1998); Hurt et al. (1977); Jacoby (1971); Leavitt and Walton (1975); Leavitt and Walton (1988); Lumpkin and Dess (1996); Marcati et al. (2008); Menguc and Auh (2006); Midgley and Dowling (1978); Tellis et al. (2009); Vandecasteele and Geuens (2008); Zaltman et al. (1973)
<i>Intention to innovate</i>	Ajzen (1991); Avlonitis et al. (1994); Berthon et al. (1999); Hjalager (1997); Hjalager (1996); Kundu and Katz (2003); Marcati et al. (2008); Stamboulis and Skyannis (2003)
<i>Risk</i>	Ahmed (1998); Burns and Stalker (1961); Cooper and Kleinschmidt (1987); Cowart et al. (2007); Damanpour (1991); Daneels and Kleinschmidt (2001); Dertouzos (1999); Fell et al. (2003); Gebert et al. (2003); Gebert and Boerner (1999); Gounaris et al. (2003); Midgley and Dowling (1978); Özsomer et al. (1997); Panayides (2006)
<i>Capacity to innovate</i>	Avlonitis et al. (1994); Besanko et al. (1996); Burns and Stalker (1977); Burns and Stalker (1961); Cooper (2006); Gebert et al. (2003); Gilbert (2007); Hjalager (2002); Hult et al. (2004); Hurley et al. (2005); Hurley and Hult (1998); Markides (1998); Paleo and Wijnberg (2008); Siguaw et al. (2006); Slater and Narver (1995); Sundbo et al. (2007); Tang (1998); Utterback (1979); Wang and Ahmed (2004); Winter (2003)

Based on this, we submit a new definition and conceptualisation of innovativeness that may serve as a starting point for academic and practitioner dialogue. We suggest that reaching consensus on a definition and conceptualisation is critical to advancing new knowledge in a comprehensive manner in this research area. The following definition is proposed:

Innovativeness is an organisation-wide dynamic capability indicated by absorptive capacity, cultural willingness, propensity, receptivity, market responsiveness, commitment, intention and technological capacity, which stimulates innovative activity, propelling the organisation to engage in risky behaviour and rapidly incorporate change in business practices through the [early] creation and/or adoption of new ideas,

consequently enhancing innovation and business performance and ultimately delivering a competitive advantage.

In addition, we argue that innovativeness is possessed to some degree by all firms, with some firms displaying a higher level of innovativeness than others, depending on their *innovative capabilities and capacity to innovate*. In this respect, the ability of a firm to develop successful innovations is a function of their innovative capacities (Hii, 2004).

Conceptualising innovativeness at the macro firm level in tourism innovation literature is not coincidental but concurrent with a growing body of literature that centres on the topic of innovativeness. Numerous researchers have called for a broader or macro view of innovativeness as opposed to the traditional narrow, micro view of once-off product or service innovations (Siguaw et al., 2006; Avlonitis et al., 1994; Cooper and Kleinschmidt, 1995). However, as academics in this area, we must focus our attention on developing a more complete understanding of *why* innovativeness is so important in the restoration of small tourism firm competitiveness.

THEORETICAL BACKGROUND

Innovativeness as a Firm-Level Dynamic Capability

The resource-based view (RBV) of the firm is a useful theoretical framework for understanding how firm resources and capabilities lead to SCA (Barney, 1991; Nelson, 1991; Penrose, 1959; Teece et al., 1997). As an established strategic management theoretical framework, it concerns itself with resources as being critical to a firm's SCA and long-term survival. One of the fundamental propositions of the RBV is that organisations are a bundle of resources that are simultaneously valuable, rare, inimitable and non-substitutable (VRIN), which subsequently generate SCA (Barney, 1991; Wernerfelt, 1984). Thus, the heterogeneity and immobility of resources across firms contribute towards their comparative differences and SCA in the marketplace (Barney, 1991; Wernerfelt, 1984). SCA exists when competitors can neither match the value created by a specific firm nor are able to profit from the firm's effort (Barney, 1991). Whilst tangible physical, human and organisational resources are considered important, special emphasis is placed on intangible knowledge and competence-based resources as these are firm specific and embedded within the organisation itself, hence they cannot be easily copied or competed away¹ by competitors (Barney, 1986, 1991).

In connecting the RBV to dynamic markets, Teece et al. (1997: 516) discuss the notion of 'dynamic capabilities' through which managers 'integrate, build and reconfigure internal and external competencies to address rapidly changing environments'. The main thrust of the dynamic capabilities literature is that such capabilities are essentially organisational routines deployed to alter and renew a resource base by acquiring, creating, shedding, integrating and recombining existing resources to generate new value creating strategies (Teece et al., 1997; Pisano, 1996). Whilst the functionality of dynamic capabilities is generic and applicable across business contexts, their value lies in the resource configurations

that they create, and not in the capabilities themselves (Eisenhardt and Martin, 2000). Dynamic capabilities differ from capabilities in the sense that the former have the ability to constantly change other organisational or non-dynamic capabilities to create SCA, whilst the latter become less effective and more rigid over time (Leonard-Barton, 1992). This signals a co-evolutionary process in which the interaction between resources, competencies and capabilities within the firm are transformed into SCA.

In line with the dynamic capabilities literature, innovativeness is a firm-specific, valuable and socially complex capability that is non-universal and, hence, not easily transferable or imitable by other firms (Hult and Ketchen, 2001), representing an implicit aspect of the firm's social structure and culture (Lado and Wilson, 1994). By definition, innovativeness relates to a firm's cultural willingness, inclination, propensity and readiness to be innovative and try new, untested ideas, thus forgoing old habits (Zaltman et al., 1973; Hurley and Hult, 1998; Hult et al., 2004). Innovativeness implies a firm being proactive by following specific routines and processes to explore new opportunities rather than merely exploiting current strengths (Menguc and Auh, 2006). To be innovative, the organisation needs to adopt a new mindset or attitude that needs to be shared and disseminated throughout the entire firm to be effective (Menguc and Auh, 2006). Moreover, due to its wide dissemination and profound cultural embeddedness within the firm, innovativeness becomes tacit, complex and specific, that is, *causally ambiguous* (Reed and DeFillippi, 1990). Causal ambiguity makes it more difficult for competing firms to decode and imitate innovativeness, thus rendering it a strategic source of SCA. In this vein, Reed and DeFillippi (1990) mention that companies need to constantly reinvest in resources of causal ambiguity to counter competitive forces that can erode imitability barriers. Thus, innovativeness must be a continuous, iterative process throughout the entire organisation since without continuous innovativeness, any barriers to imitation will be neutralised and eroded (Bharadwaj et al., 1993). Similarly, Porter (1985: 20) states that a firm needs to be 'a moving target to its competitors, by reinvesting in order to continually improve its position'.

The RBV literature and dynamic capabilities theorists have adopted four broad categories of strategic resources:

1. Managerial resources
2. Input-based resources
3. Transformational resources
4. Output resources (Lado and Wilson, 1994)

This particular study incorporates transformational resources, which are the 'firm resources required to advantageously convert inputs into outputs' (Lado et al., 1992: 85). Hence, we propose that any SCA to be derived from organisational resources is likely to depend on the resource configurations that firms build using their dynamic capability, namely innovativeness.

Why Innovativeness?

This study posits innovativeness as the transformational capability in which a firm's internal pool of resources are utilised and converted into a firm's output (Dutta et al., 2005), namely SCA. Working in combination with each other, 'resources are the source of a firm's capabilities' and 'capabilities are the main source of its competitive advantage' (Grant, 1991: 119). Resources by themselves cannot achieve SCA but they must be processed and transformed by the capabilities of the organisation in order to be productive (Grant, 1995; Eisenhardt and Martin, 2000). Therefore, we contend that if a firm merely possesses resources which satisfy the VRIN model (Barney, 1991), but fails to simultaneously utilise the dynamic capability of innovativeness to make these resources more productive, superior returns and SCA cannot be realised (Augier and Teece, 2007; Ambrosini and Bowman, 2009). Thus, this study positions innovativeness as a dynamic capability which drives a firm's SCA by means of converting and reconfiguring organisational strategic resources in response to changing market conditions and environmental turbulence and instability (Teece et al., 1997).

Many researchers recognise the importance of innovativeness as a firm-level strategic objective to ensure the survival of small tourism firms, since innovation in and of itself is a necessary but insufficient condition to provide continued organisational survival and success (e.g. Sundbo et al., 2007; Novelli et al., 2006; Damanpour, 1991). Product innovation success does not necessarily imply firm-level success, yet firm-level innovativeness is a necessary prerequisite for long-term survival (Siguaw et al., 2006; Avlonitis et al., 1994). Because once-off, discrete product or service innovations are not sufficient to guarantee long-term success, success is not determined at the individual product innovation level but at the overall firm level. To illustrate, a firm that has a very good product or service innovation will merely benefit from a temporary competitive advantage until competitors decode its source of competitiveness and imitate the new innovation (Barney, 1991). In contrast, innovativeness guarantees long-term competitive advantage because it is part of the organisation's corporate DNA and, hence, cannot be easily decoded, copied or imitated by competitors.

In the context of this particular study, innovativeness is deemed to be an extremely important dynamic capability because it enables the small tourism firm to alter its internal resource base and quickly adapt and respond to its changing market environment. Tourism is a dynamic and highly flexible industry, hence the ability to 'orchestrate changes', build new capabilities, transform the asset base and reconfigure processes is crucial for competitiveness (Teece et al., 1997). An innovative firm that has the ability to be nimble, change quickly and be alert to changes in the environment can apply its dynamic capabilities sooner and more strategically than competitors, and will be better able to adapt more quickly and easily to changing market conditions, creating an SCA (Eisenhardt and Martin, 2000). This is due to the fact that a more innovation capable organisation has the ability to build and deploy distinctive resources faster than others (Winter, 2003). Therefore, we posit that innovativeness – characterised by a high degree of organisational flexibility and the active and effective implementation of new organisational strategies and

practices – enhances productivity and enables firms to match their resource base to the requirements of a rapidly changing business environment. This lends weight to the argument that innovativeness plays an undeniable role in helping a small tourism firm to create and sustain a competitive advantage.

In conclusion, drawing from the RBV and dynamic capabilities literature, if small tourism firms can strategically practice innovation, their limited resources will be utilised to maximum capacity and profitability, and competitiveness should increase as a result (Sundbo et al., 2007). Fundamentally, innovativeness increases a firm's capacity to innovate (Damanpour, 1991) by encouraging organisational innovative behaviours through strategic practices (Siguaw et al., 2006), thus increasing overall competitiveness.

KEY RESOURCES TO BE UTILISED

In line with RBV rationale, we posit that certain resources must be in place within the organisation in order to ensure SCA. In an effort to understand what resources are needed, we have categorised them under three broad headings as follows:

1. Organisational culture and climate
2. Strategic orientation
3. Intellectual capital

Organisational Culture and Climate

An innovative-oriented culture and climate should be promoted and encouraged throughout the entire organisation in order for innovativeness to flourish. Pavitt (1991) raised issues such as flexibility, short communication lines, close relations with customers, motivation of management and labour force, less bureaucracy, little filtering of proposals with a strong interest in product development, and technological change as part of the characteristics of an innovative culture. To promote such a climate, there should be committed leaders who possess vision and enthusiasm for innovation and are future-oriented (Heunks, 1998). Leaders must demonstrate an active strategic commitment to research and technological change (Motwani et al., 1999). The literature (e.g. Amabile et al., 1996; Jung et al., 2003; Scott and Bruce, 1994) consistently highlights the critical role that managers and/or supervisors play in bringing about innovation through inducing an innovative team climate whilst influencing a culture that supports creative ideas and fosters innovation efforts in teams. Transformational leadership is the preferred leadership style for effective organisational innovativeness as it helps develop, intellectually stimulate and inspire followers to abandon their own self-interests in favour of a group or collective purpose (Howell and Avolio, 1993). In addition, managers must be supportive of innovation and display a general willingness to take risks and allow employees to explore new ideas, even when ideas could potentially fail. From an organisational perspective, there needs to be an innovation-oriented corporate mission and philosophy statement (see Ahmed, 1998) whereby there exists a cultural belief that innovation is important. The organisation must be committed to the development of innovations by providing psychological and resource support, and

reward innovations in order to encourage employees to be innovative (Russell, 1986). In addition, management and leadership must have the ability to develop team cohesiveness and facilitate teamwork using a diverse range of skills and giving sufficient 'slack' time for creativity and generation of new ideas. They must promote creativity and receptivity towards innovativeness throughout the organisation. Consequently, when organisational members perceive innovation-supportive practices, policies and so forth, they believe that the organisation values innovation and, hence, feel more motivated to innovate (Ahmed, 1998). Such a cultural perception has thus become a prerequisite to innovativeness.

Strategic Orientation

The organisation must be able to use strategy to adapt to and change aspects of its environment for a more favourable alignment (Manu and Sriram, 1996). An innovative strategic orientation means that the organisation must possess the capacity to plan ahead, to have clear strategy and to manage strategically, which is reflected in firms being market-oriented and willing to learn as well as to innovate and take risks (Georgellis et al., 2000; Beaver and Prince, 2002; Salavou et al., 2004). The finding of risk-taking was also confirmed by other studies (e.g. Blumentritt, 2004) showing that the most innovative firms were competitively aggressive and willing to take greater degrees of risk. The literature consistently highlights the relationship between innovativeness and three strategic orientations, namely market orientation, learning orientation and entrepreneurial orientation (e.g. Hult et al., 2004). From a *market orientation* viewpoint, Jaworski and Kohli (1993: 56) have argued that 'a market orientation essentially involves doing something new or different in response to market conditions; it may be viewed as a form of innovative behavior'. *Learning orientation* has to do with the development of new knowledge in the organisation (Cohen and Sproull, 1996; Crossan et al., 1999), resulting in new behaviours (Argyris and Schön, 1978; Fiol and Lyles, 1985). Finally, *entrepreneurial orientation* suggests a proclivity toward the creation of new products and ventures and a proactiveness and competitive aggressiveness that embodies a bold action-oriented positioning (Cooper and Dunkelberg, 1986; Cooper et al., 1989). Thus, entrepreneurial orientation is characterised by boldness and a tolerance for risk that lead to new market entry (Naman and Slevin, 1993; Lumpkin and Dess, 1996), but which may not include a concern for market analysis or learning endeavours (Hurley and Hult, 1998). Indeed, entrepreneurial orientation has long been associated with proactive competitive posture, management proclivity for risky projects, and the firm's need to engage in bold, wide-ranging acts to achieve objectives (Covin and Slevin, 1989; Miller, 1987).

Intellectual Capital

To promote innovativeness, the organisation must possess the necessary intellectual capital. Intellectual capital is 'the sum of everything everybody in a company knows that gives it a competitive edge' (Stewart, 1997: 9). It is composed of human, structural and relational capital (Stewart, 1997; Edvinsson and Malone, 1997). *Human capital* relates to talents, specialisations and the capability of developing new and creative ideas of individuals in the organisation. It is described by Roos et al (2001: 23) as the 'competence,

skills, and intellectual agility of the individual employees'. *Structural capital* encompasses 'processes, systems, structures, brands, intellectual property and other intangibles that are owned by the firm but do not appear on its balance sheet' (Roos et al., 2001: 23). It can be conceptualised as the fluid intangible assets such as processes, routines, culture, and the more formally crystallised structural capital as codified in an organisation's policies, procedure booklets and intellectual property (Carson et al., 2004). Finally, *relational capital* encompasses 'the external revenue generating aspects of the firms' including 'branding, reputations, strategic alliances, [and] relationships with customers and suppliers' (Seetharaman et al., 2004: 524).

A CONCEPTUALISATION OF INNOVATIVENESS AS A FIRM-LEVEL DYNAMIC CAPABILITY

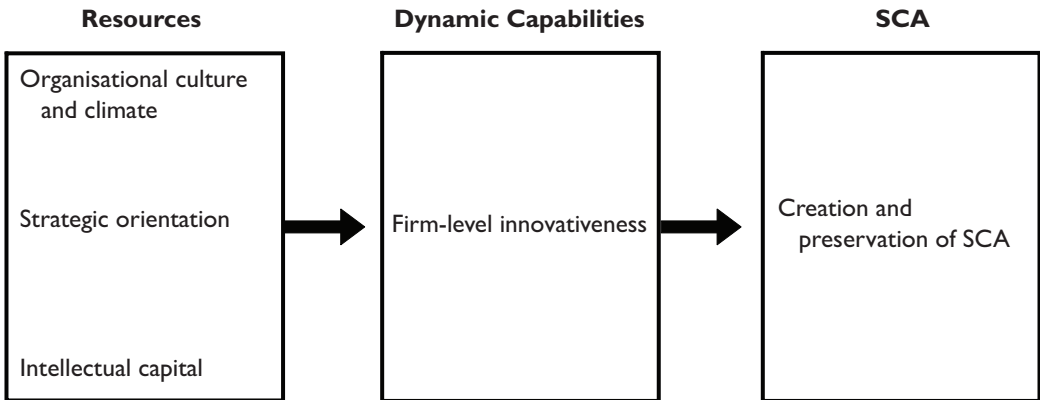
Based on the foregoing, the following conceptualisation of organisational innovativeness can be presented, whereby innovativeness is depicted as an organisation's innovative capability. The conceptual model in Figure 1 graphically illustrates how the various constructs of RBV combine together and work towards achieving SCA. It suggests that resources and dynamic capabilities interact, whereby the latter transforms the former to make them more productive and capable of generating SCA.

The model views organisational culture and climate, strategic orientation and intellectual capital as the resources which precede innovation capability building. It suggests that a firm with a strong innovation-oriented culture, climate and strategy, as well as the appropriate intellectual capital structure, is associated with the development of new capabilities. Based on this, it is theorised that an overall innovation orientation (Sigauw et al., 2006) would influence the organisation's capability to innovate by adopting new ideas and processes that would enable adaptation and change and being the first to market with new products and services.

Influenced by RBV thinking, the model depicts the ability of an organisation to effectively and efficiently utilise its innovative capability to exploit these internal resources and capabilities aforementioned, and, most importantly, to recombine and reconfigure its resources and capabilities to sustain competitiveness in changing market environments. In fact, the success of a firm is largely determined by the extent of its innovation capability (Hult et al., 2004). Therefore, it must be innovative in order to survive in a volatile market (Johnson et al., 1997). In this vein, Hult et al. (2004) found that through innovativeness managers devise solutions to business problems and challenges, which provide a basis for firm success into the future.

Finally, the interactive relationship presented in the conceptual model is assumed to be firm specific, socially complex and tacit since it is the result of a constant social interaction process taking place within the organisation. Specifically, a firm with a high innovation capability employs a learning-by-doing effect, which makes it extremely difficult for competitors to buy this know-how in the marketplace and also makes it very difficult for rivals to imitate (Cavusgil et al., 2003). Thus, only a handful of organisations are proficient in successfully building an innovation capability, giving them SCA.

Figure 1: A Tentative Integrated Conceptual Model of the Impact of the Dynamic Capability Firm-Level Innovativeness on Sustainable Competitive Advantage



CONCLUSION

In this paper we have argued that there needs to be a move away from the micro view of tourism innovation towards a firm-level perspective. Indeed, the main premise underlying our argument is that the defining factor of long-term survival of a tourism firm through innovation appears to be based not on specific, discrete innovations but rather on an overarching, organisation-wide innovation capability structure, termed ‘innovativeness’ (Trott, 1998). The logic underpinning this reasoning is that a tourism firm’s long-term survival may rely more on overall firm-level innovativeness, which enhances the development of innovations, and less on the actual innovations themselves (Abernathy and Utterback, 1978; Trott, 1998). It is this idiosyncratic aspect that encapsulates the difference between innovation and innovativeness. Innovation merely provides a firm with a short-term competitive advantage since innovations can be easily replicated by competitors. In contrast, innovativeness cannot be easily replicated due to its social embeddedness within the organisation. Unlike innovation, innovativeness is an underlying capability structure which is strategically developed through organisational path dependencies (Barney, 1991) to encourage and drive innovative behaviour at the firm level and consequently achieve SCA. Innovative behaviour is taken to mean some change in behaviour by tourism firms in response to environmental market changes (Sundbo et al., 2007).

Whilst there is growing recognition of the importance of innovativeness, there is relatively little in the way of theoretical guidance about how to build and manage an innovation-wide organisational structure that delivers SCA. In this paper, we have tried to make a contribution by theoretically proposing a tentative conceptualisation that shows the relationship between resources and dynamic capabilities for enhanced competitive advantage. While this represents a first attempt at what might become a more robust view for academics and practitioners to view tourism innovation from a firm-level perspective, there is clearly a need to develop our thinking further. For instance, although we have

conceptually presented the dimensions of firm-level innovativeness, they require further exploration and need to be empirically tested and validated. Likewise, we do not yet know the exact nature of the interrelationship, and how and under what conditions resources and innovativeness interact to achieve SCA.

ENDNOTES

- 1 In this context, the term 'competed away' is based on Barney's (1991) terminology and refers to whether or not the value to a firm of having a specific resource can be potentially lost through the duplication efforts of competing firms when they eventually learn the source of competitive advantage and replicate the same resource. Thus, 'competed away' means that a resource can be taken away, duplicated, copied or imitated by competing firms, and the resource is no longer unique or superior to the firm which originally held it. When a resource is competed away, or taken away, by competitors, its ability to provide a *sustainable* competitive advantage is diminished (Barney, 1991). RBV holds that a firm can only earn supra-normal returns if, and only if, they have superior resources that are protected by some form of isolating mechanism preventing them from being 'competed away' by rivals or new entrants, or diffused throughout the industry (Barney, 1991, 1986).

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Low-Cost Carriers and High-Tech Barriers: User Views on Questionable Web Design Practices in Ireland



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ABSTRACT

That information systems/information technology (IS/IT) practitioners should use best practice in information systems development is universally agreed. We expect systems to enhance the user experience and allow them to engage in a satisfying, productive interaction. This paper posits all is not well with this hypothesis and suggests many firms in the low-cost carrier (LCC) sector are using web technologies to inhibit or avoid customer service and to construct IS-enabled barriers behind which firms profit from their distance. The emergence of the LCC model is explored before a study is presented that scrutinises LCC web practices. Participants were found to be wary in online interactions and cynical about problematic or omitted features. Teaching of good practice is suggested and improved ethics in IS design is merited.

Key Words: usability; information systems; online trust; marketing; consumer protection; regulation

INTRODUCTION

That information systems (IS) and information technology (IT) practitioners should use best practice in information systems development is pretty much universally taken for granted. We expect systems to be developed that enhance the user experience and allow them to engage in a satisfying and productive interaction. This paper posits that all is not well with this hypothesis. It is suggested here that some firms in the low-cost carrier (LCC) sector are using web technologies to inhibit or avoid customer service and to construct IS-enabled barriers behind which firms profit from their distance. The emergence of the

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LCC model is explored before a study is presented that scrutinises the web practices of four carriers based in Ireland.

THE LOW-COST CARRIER MODEL

Southwest Airlines was the first carrier to successfully pioneer a low-cost model (Alamdari and Fagan, 2005). It drove growth with a relentless focus on cost reduction. The model has been widely duplicated across Europe and elsewhere (Button et al., 2007). With full deregulation in 1997 in the United States and the European Union airline carriers were permitted to raise and lower fares at will, as well as to enter and exit markets. Without these restrictions intense fare competition ensued, accompanied by new low-cost airports and industry expansion, which spurred airlines to seek improvements in efficiency through the development of hub-and-spoke route systems (Kahn, 2002). Indeed low-cost carriers (LCCs) now 'share a commitment to what Lawton (2003) terms the cult of cost reduction' by reducing unit costs, while simultaneously increasing output and productivity (Graham and Vowles, 2006: 106).

The phenomenon of low-cost travel has brought about tremendous benefits to passengers who previously had no choice but to pay exorbitant ticket prices for relatively short trips to fund an industry that was laden with the structural costs of full-service delivery. With respect to the operational management of LCCs, securing resources and developing competences in managing e-business tools have become crucial (Nucciarelli and Gastaldi, 2008). The LCCs' adoption of technology, in areas such as electronic ticketing and dynamic pricing, has become an important component in offering consumers more efficient flight options. Thus, the industry's increasingly competitive environment has favoured those

... customers who are now becoming more conscious of their needs. Furthermore, the Internet as an information and distribution channel with minor information and transaction costs intensifies these changes in customers' preferences and their behavior (Teichert et al., 2008: 228).

Yet despite these advances, it appears a number of LCCs design their information systems in a conflicting manner when managing customer interactions, particularly when selling ancillary services and managing complaints. The websites for many LCCs smoothly engage and facilitate customers through the self-service process to commit users to purchase tickets. However, after they have decided to where and when they wish to travel and received an initial quote the websites appear more opaque and difficult to traverse. This 'committal' point, identified by Barry and Torres (2009), would appear to be a pivotal point that separates trust building on one side from distrust building on the other. Whereas most of the literature in IS suggests increasing trust building mediates distrust, the notion put forward here of co-existing trust and distrust is more in keeping with the two-process view of Komiak and Benbasat (2008).

INFORMATION SYSTEMS DESIGN AND ONLINE TRUST

Various IS development approaches and human-computer interaction (HCI) have long held that an essential outcome is to improve the interaction between users and computer (Barry and Lang, 2001; Dix et al., 2004) and that IS professionals should adopt a benign and moral posture.

Indeed, from a business perspective, designing a good website is seen by organisations as a way of maximising profits (Lee and Koubek, 2010a), and so they would like to ensure users would choose their websites over those of their rivals. One way of achieving this consumer preference is to incorporate high levels of usability into their website, which can have a positive effect on the users' preference for a website (de Angeli et al., 2006; Lee and Koubek, 2010b). The International Organization for Standardization defines usability as:

...the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use (ISO/DIS 9241-11 (International Organization for Standardization, 1996)).

Given the importance of usability, educational institutions have been teaching the principles and methods of usability and HCI for some time. ACM SIGMIS (Association for Computing Machinery/Special Interest Group on Management Information Systems), IACIS (International Association for Computer Information Systems) and various other international bodies recommend that HCI be taught as part of graduate degree programmes in information systems (Gorgone et al., 2006).

A plethora of textbooks are available to students and practitioners to further their knowledge in the area of HCI and web design. An examination of widely used texts on the principles of web and interface design (Nielsen, 1999; Krug, 2000; Nielsen and Tahir, 2001; Sklar, 2006; Shneiderman and Plaisant, 2010) suggests the role of the user interface designer is to improve the computing experience of the user. Nowhere is it suggested that the design of the information system should be approached in such a way that the user could be prevented or discouraged from completing certain tasks easily and effectively. It is presumed the designer will adopt a user-centred approach that will result in an information system that makes the role of the user more effective, efficient and satisfying.

The authors would argue this presumption has become unsafe. Poor website design practices are likely to deter users from attempting tasks and result in an unsatisfactory user experience. In addition, they are likely to erode online trust between LCCs and their customers. The importance of online trust should not be underestimated in online environments (Wang and Emurian, 2003). It has been described as 'a complex and dynamic phenomenon that cannot simply be "produced" by applying adequate instruments' (Grabner-Kraeuter, 2002: 48).

Given that many consumers are sceptical about the mechanisms of e-commerce, trust has become essential in the diffusion and acceptance of e-commerce. Firms that fail to recognise this consumer scepticism and the importance of gathering intelligence by soliciting

complaints are likely to be disadvantaged. Indeed, complaints can be viewed as opportunities for service recovery that can turn angry, disgruntled customers into loyal, vocal advocates for the firm. Poor service recovery is an indication that a firm lacks commitment and diligence, which along with trust and earned reputation are indispensable in establishing enduring relationships in service and internet businesses (Murphy et al., 2007). Because many firms handle customer complaints poorly, those firms that do succeed in offering excellent service recovery may secure an unrivalled source of competitive advantage (Antón et al., 2007).

RESEARCH APPROACH

This study builds on an earlier study that employed heuristic evaluations to examine LCC websites to determine how they conform to established usability principles (Barry and Torres, 2009). The purpose of this research is to:

1. Establish whether users perceive airlines as using IS design practices that facilitate customer interaction in revenue generating areas but not when it comes to non-revenue generating services, such as making a complaint; and, if this the case,
2. To determine whether this approach has an impact on the users' perception of the websites' level of usability

It was also planned to explore the views of the users on ancillary charges and how favourably disposed users felt towards LCCs. Based on an examination of the literature and operations of the industry, it was decided to gather broad and specific data about how users perceive the usefulness and functionality of LCC websites. To reveal a rich picture, both quantitative and qualitative research methods were chosen. Three research techniques were used: usability testing, verbal protocols and focus groups. Usability testing was used largely to examine ease of use, verbal protocols to examine attitudes towards the websites and focus groups to explore in more detail issues and concerns arising from usability tests and verbal protocols.

In this study, a simple and focused usability test was conducted. Ninety-six student users completed a pre-test questionnaire, of which ninety-one completed three tasks (i.e. find a flight, book a flight and make a complaint) on two of the websites of four LCCs operating out of Ireland: Aer Lingus, Aer Arann, bmibaby and Ryanair. A key measure was the number of users who completed each of the tasks. Users were also instructed to abandon the task at any stage if this is what they would ordinarily do. After completing each task, they filled in a brief questionnaire in order to determine how easy the task was to complete. At the end of the test, users completed an additional questionnaire describing how easy they found the airline's website to use overall.

Verbal protocols are described using a variety of names in the literature. These include: 'thinking aloud', 'verbal reports' and 'after think aloud' (Nielsen et al., 2002). It involves an end user verbalising their thoughts while carrying out tasks on a system. This verbalisation helps the evaluator to understand the user's attitudes towards the system and to

identify aspects of the design that are problematic for the user (Holzinger, 2005). During the interaction, the user is encouraged to talk aloud by the evaluator asking appropriate open questions, such as, 'Why has the system done that?', 'What were you expecting to happen?' or 'What has the system done now?' The sessions are generally taped and a separate note taker may also take detailed notes of the comments and actions of the user (Monk et al., 1993). In this study, seven typical users of low-cost carrier websites participated in a series of verbal protocol evaluations. Each participant carried out three tasks (find a flight, book a flight and make a complaint) on each of two airlines' websites. While carrying out the tasks, the participant was prompted to talk aloud and describe the interaction.

Focus group discussions are highly suitable to complement other research methods where greater understanding is required (Bloor et al., 2001). Hence, focus groups were deemed suitable as a means of exploring further insights drawn from the usability tests and verbal protocols. Focus group participants were drawn from members of the usability test sessions. Five focus group discussions were held, with each group consisting of four or five participants. The sessions were guided by a facilitator, who prompted participants to talk freely and spontaneously about the issues presented for discussion (Macnaghten and Myers, 2004). Facilitators also took great care in ensuring the questions posed were presented in a neutral manner to avoid leading the participants in their responses. Similar to verbal protocols, the discussions were taped and a note taker was present to record pertinent comments. The main issues for discussion in the groups were the participants' experience of the booking process, their views of the ancillary charges, their experience in attempting to complain to the LCCs and the role they believe regulation should play in this industry, as well as their general perceptions of each carrier.

ANALYSIS OF FINDINGS

Participant Background

The usability testing was conducted over several sessions with 96 undergraduate and post-graduate students from a variety of disciplines, both technical and non-technical. There were 51 male and 45 female participants, ranging in age from 18 to 55 years, with a mean age of 23.5 years. These participants completed a pre-test questionnaire in order to gather demographic information and to determine attitudes towards purchasing products and services on the internet. It was established that 95 per cent of participants had purchased some type of product or service on the internet and a similar proportion had previously booked flights on the website of an LCC. The average number of flights purchased in the last year was 1.79 flights.

Participant Expectations at the Outset

As part of the pre-test questionnaire, the participants were asked to specify, on a five-point scale, how important each of the following factors were to them when purchasing a product or service other than a flight and when purchasing a flight: cost, ease of purchase, ease of navigation, ease of making a complaint and transparency of additional costs. In all cases, there was little difference in the mean level of importance (with 1 indicating very

unimportant and 5 indicating very important) for each factor when purchasing a product or service and when purchasing a flight (see Table 1). When *t*-tests were carried out, the only factor for which there was a significant difference was cost, suggesting that cost is slightly more important to consumers when purchasing flights than when they are purchasing other types of products or services via the internet. However, the difference between the mean values was small (4.80 versus 4.65) and so even though the difference is significant it is a small difference. As can be seen by the mean values in Table 1, four factors (cost, ease of purchase, ease of navigation and transparency of additional costs) are extremely important to participants. Furthermore, they are largely of equal importance to them. The one factor (for all products) that differs substantially is the 'ease of making a complaint', which, while still important, is less so. This finding most likely represents the position of online consumers generally, who are more conscious of cost and ease of securing purchase (all pre-sale activities) rather than complaining (a post-sale activity) about issues that have not arisen.

Table 1: Importance of Factors to Internet Consumers (Mean Values)

Task	Cost	Ease of Purchase	Ease of Navigation	Ease of Complaint	Transparency of Additional Costs
When purchasing a product or service other than flight	4.65	4.40	4.31	3.49	4.55
When purchasing a flight	4.80	4.45	4.26	3.48	4.60

The results indicate user expectations of purchasing flights (i.e. at the outset of the tests) are similar to purchasing other types of products or services via the internet. This finding about expectations is important, as it suggest consumers do not at the outset, and perhaps in some abstract sense, expect websites of LCCs to be less easy to navigate, less transparent in terms of charges or less easy to make a complaint. However, as will be shown later, the experience of participants deviates considerable from these expectations.

Overall Ability to Complete Tasks

The percentage of participants able to actually complete the tasks varied, with 98 per cent of participants completing the task of finding a flight, 97 per cent completing the task of booking the flight and only 44 per cent managing to complete the task of making a complaint (see Table 2). The contrast here is stark, as failure to complete the assigned task was only an issue for participants attempting to make a complaint. That more participants failed to make a complaint than were able to do so is alarming. This finding means the websites are able to engage and support users easily in revenue-focused activities, but fail in most cases to do so in a service-related matter.

Table 2: Total Number of Attempted and Completed Tasks

Airline	Find a Flight		Book a Flight		Make a Complaint	
	Attempted/ Completed Task	% Comp- leted	Attempted/ Completed Task	% Comp- leted	Attempted/ Completed Task	% Comp- leted
Aer Arann	41/40	98%	43/43	100%	45/31	69%
Aer Lingus	49/48	98%	50/47	94%	47/12	26%
bmibaby	34/34	100%	34/32	94%	36/14	39%
Ryanair	44/43	98%	43/43	100%	44/18	41%
<i>Overall</i>	<i>168/165</i>	<i>98%</i>	<i>170/165</i>	<i>97%</i>	<i>172/75</i>	<i>44%</i>

Ease of Task Completion

Those who attempted each of the tasks were asked to rank the difficulty of the task on a four-point scale, with 1 being very difficult and 4 being very easy. Those who completed the 'find a flight' task had a mean rating of 3.41, while those who completed the 'book a flight' task had a mean rating of 3.35 (see Table 3). Both tasks were deemed technically easy to complete by participants. In contrast, the mean rating assigned by those who completed the 'make a complaint' task was 2.24. *t*-tests were carried out to determine whether there was a significant difference in terms of ease of completion between the different tasks. There was no significant difference between the 'find a flight' and 'book a flight' tasks, whereas there was a significant difference between the 'make a complaint' task and each of the other two tasks ($p \leq 0.01$ in both cases). The similarity in values and lack of significant difference for the two tasks 'find a flight' and 'book a flight' suggest that both of these tasks are similarly easy to complete. This finding is supported by the high completion rate for both of these tasks (98 per cent and 96 per cent respectively). In practice, these tasks would most likely be connected in the mind of the user, as it is necessary to find a flight before booking one.

Table 3: Ease of Task Completion

Airline	Find a Flight	Book a Flight	Make a Complaint
Aer Arann	3.45 (n = 40)	3.43 (n = 42)	2.49 (n = 39)
Aer Lingus	3.38 (n = 48)	3.30 (n = 46)	1.77 (n = 31)
bmibaby	3.24 (n = 34)	3.31 (n = 32)	2.23 (n = 30)
Ryanair	3.53 (n = 43)	3.35 (n = 43)	2.44 (n = 25)
<i>Overall</i>	<i>3.41 (n = 165)</i>	<i>3.35 (n = 163)</i>	<i>2.24 (n = 125)</i>

In contrast, the low mean value for the 'make a complaint' task and its significant difference to the other two tasks suggests this task is considerably more difficult to complete than the

others. This finding is supported by the low completion rates (i.e. only 44 per cent overall) for the 'make a complaint' task. As part of a pre-test questionnaire, participants were asked to indicate the importance of different factors (cost, ease of purchase, ease of navigation, ease of complaint and transparency of additional costs) when purchasing airline tickets. Of all of these factors, making a complaint easily was ranked as less important than all others. This finding suggests that, although it was difficult to make a complaint on the airlines' websites, this factor would be of less importance to the users than other factors, such as making a purchase easily. In practice, of course, a user would make a complaint less frequently than completing other activities on a website.

Overall Ease of Use of LCC Websites

Usability test participants were asked to rate the overall ease of use of each airline's website on a scale of 1 to 5, with 1 = very difficult and 5 = very easy. A one-way ANOVA test was carried out to determine whether there were significant differences between the airlines regarding overall ease of use (see Table 4). No significant linear trends were apparent. This finding suggests participants perceived no difference in the overall ease of use of the different airlines. The finding is somewhat surprising given the marked difference in the participants' ability to complete the 'make a complaint' task (69 per cent completed it on the Aer Arann website, whereas only 26 per cent, 39 per cent and 41 per cent completed it on the Aer Lingus, bmibaby and Ryanair websites respectively). This finding presumably is connected to the fact that participants ranked making a complaint as less important in the pre-test questionnaire than other factors, such as ease of purchasing. If they attribute less importance to this task, they may well not weight the difficulty in completing the task as highly as the other tasks when determining the overall ease of use of the website.

Table 4: Overall Ease of Use of LCCs' Websites

Airline	Mean	Number
Aer Arann	3.91	44
Aer Lingus	3.80	49
bmibaby	3.86	37
Ryanair	3.90	41
<i>Total</i>	<i>3.87</i>	<i>171</i>

Experiences Complaining

The analysis shows it is significantly harder to secure complaint information than it is to find or book a flight. However, this varied by airline, with Aer Arann having a much higher completion rate (see Table 2) and having a higher ease of task completion rating (see Table 3) than the other airlines. To determine whether there was a significant difference between Aer Arann and the other airlines, linear contrasts were used within a one-way ANOVA. A significant difference was found ($p < 0.05$), suggesting the 'make

a complaint' task was easier to complete on the Aer Arann website than on those of any of the other airlines. These findings are further supported by verbal protocols and focus groups, where it was clear Aer Arann provided the most complete contact information, including both a phone number and an email address in the customer relations section. However, participants were not wholly content with the website as finding this information was not easy; nonetheless, 69 per cent of usability test participants were able to complete the task on Aer Arann.

None of the other airlines provided an email address for complaints. They required customers to complain via fax or the postal system, and to include a copy of their ticket or boarding card. Even finding the postal address and fax number proved difficult with all of the airlines' websites. In fact, contact details appeared to be deliberately hidden in some cases. On the Aer Lingus website, no direct link was provided and the customer must scroll deeply down the webpage. On the bmibaby website, several verbal protocol participants noted that bmibaby's customer relations' page does not state it has anything to do with complaints. Trying to contact Ryanair to complain was perceived as being more awkward than for the other airlines. The link to 'Contact Customer Service' is only found by scrolling down the page, rather than being included on the Customer Feedback or About Us pages. The decision not to provide consumer contact information via an 'About Us' or 'Contact Us' link is either exceptionally poor design or deliberately enacted.

Participants generally believed the airlines were acting deliberately in order to deter customers from complaining. Participants were cynical about the reasons why the task was at times impossible to complete within a reasonable time frame. They were of the opinion that contact details were hidden on purpose, navigation was constructed to deliberately throw users off, and the websites were designed to increase the time it takes to get the information. They believed that such design was deliberate, not accidental or unintended. As one focus group participant put it:

They don't want you to complain, as they might have to do something about it.

One participant from the verbal protocol, who attempted to complain to Aer Lingus, said:

This [process] makes you think I'll just go away and won't bother as it's too much hassle [to complain].

And that:

When you complain [the airlines are] going to have to do something about it. Airlines just want to take your money.

Another participant felt it was well known that:

Ryanair makes it very difficult to make a complaint.

It was observed by several participants that the provision of a fax number was a crude attempt to create distance between the airline and the customer. One participant summed up a common observation:

How many [people] have a fax machine at home?

The temporal dimension of complaining was discussed by most focus groups. One comment was:

I would never complain in reality; it takes too much time.

While another observed:

If it was an e-mail I'd complain, but I wouldn't write a letter.

The view was commonly expressed that LCCs were fully aware that removing spontaneous communication channels would minimise contact around complaints and dissuade users from taking pen to paper.

Experiences Finding and Booking Flights

As noted earlier, the websites of LCCs achieved a high ease of use result from the usability tests. Few had any problem in completing the 'find a flight' and 'book a flight' tasks. Since airlines raise much of their revenues from this activity it is perhaps unsurprising they would design their websites so these tasks are as easy as possible for users. It is good business sense to engage customers through the self-service process so they commit to purchasing flights. In finding a flight, there are many design features that accelerate the process, from giving users the closest dates around the selected date (by default and when that date is unavailable) to retaining user dates and details. For example, Aer Lingus even allows the consumer to select departure and return flights for specific dates, where a screen is presented for which the priced flight is, in fact, the cheapest of a selection of other flights. Additionally, all of the LCCs afford advanced design features such as 'hub and spoke' route maps that superbly assist users in visualising what would otherwise be complex flat information.

However, the ease of use masks demanding experiences later during the process, which surfaced in focus groups and verbal protocols where participants expressed a range of emotions from irritation and frustration to cynicism and resignation. Once users move beyond the committal point (i.e. they have chosen when and where they wish to travel and have received an initial quote), each LCC has design features that adversely affect usability and trust, discussed below.

All airlines quote an initial price that suggests it is either 'final' or 'total' whereas, in fact, it is neither. In focus groups, participants were unanimously of the opinion that this

tactic was a stratagem for users to become psychologically committed to booking a flight. One participant voiced her annoyance in saying:

Don't tell me it's the total price and then keep on adding things to it.

Once you have bought into the idea of buying the flight (i.e. the 'committal' point identified above), a number of additional avoidable and unavoidable charges and 'services' are drip-fed to the user. On the addition of charges, a participant remarked:

I knew there would be charges, but I didn't think they would be so high

and another noted it was fairly standard practice:

... but it's still annoying because you never really know until you get to the very end how much you are going to pay.

When asked whether this purchasing process was reasonable, a participant responded:

I've come to accept it is part of the [airlines'] tactics.

One verbal protocol illustrates the opaque nature of Ryanair's booking procedure. Once the participant had clicked on 'confirm flights' (which specifies the 'total cost of flight'), seven different choices have to be negotiated before *finally* securing the flight. Five of these involve charges: for baggage (opt-in), priority boarding (opt-out), airport check-in (opt-out), travel insurance (opt-out) and credit card charges (unavoidable). The remaining are personal information retention (opt-in) and newsletter (opt-in). Other airlines have similar, if fewer, obstacles to overcome. One participant cynically noted Ryanair designed their pre-selected travel insurance charge 'to get people to buy by mistake'. On why he is asked a second time by Ryanair's system if he wants travel insurance, a participant answers:

To make money, it's not illegal; if they can get away with it, why not?

A similar view ('you'd have chosen it without knowing') was expressed regarding bmibaby's travel insurance. Several focus groups felt LCCs designed their websites in such a way that novice or older users would get 'caught' with additional charges.

The inconsistency of the application of charges between LCCs and constantly changing airline policies leave participants continuously wary and cautious. For example, on credit cards Aer Arann charges per booking, Aer Lingus and bmibaby charge per passenger, while Ryanair charges for each passenger for each flight segment. In the latter case, a family of six pays twelve credit card charges for a single return booking. Participants speculated that consumers would never tolerate credit card charges being added on to a garage bill

or when buying groceries and broadly concluded it simply represents revenue generation and is not related to the administrative cost of processing cards as some LCCs claim.

Such lack of clarity in design camouflages the nature of the real price of a flight for users. Many participants felt there was ostensible transparency where headline prices including taxes and charges are quoted since there are so many other revenue-generating choices that need to be negotiated before a 'final' price is achieved. Furthermore, special offers that are widely promoted can be difficult and sometimes impossible to find, often involving trial and error with dates and airports. A strong view emerged that the LCCs could easily lay out all charges upfront instead of incrementally releasing the charges as users move towards a final card payment. The consensus on why this pricing approach is not pursued is because LCCs do not want consumers to know the final price at the outset to dissuade users from reversing out of the process and also to avoid valid price comparison.

CONCLUSIONS

LCC self-service websites work well in moving customers through the booking process and toward completion. In this regard they were deemed easy to use. It would appear that LCCs have the capacity to implement sophisticated web technologies to develop functionality with a high level of usability. In contrast, non-sales related activities, such as a complaint facility, are inaccessible to most users in this study and, for those who did find the information, it was difficult to do so. Furthermore, participants considered the contact information as woefully inadequate, and concluded most LCCs simply did not want to be contacted for customer services that did not involve a revenue stream. They suspected that technologies were being used as a barrier to consumers adequately and promptly finding contact information and making a complaint.

Consumers have been advised to question the reputation of firms if they cannot find full contact information (Kassler, 2002). Indeed, of the four LCCs evaluated, only Aer Arann has complied with the European Commission's recommendations (Smyth, 2007) on the supply of contact information. This compliance was reflected in users' views that it was much easier to make a complaint with Aer Arann than with the other airlines.

Some of the features programmed into LCCs' systems are the antithesis of good design principles. For example, it becomes problematic in navigating towards a real final price, necessitating the users to side-step a series of options. The eccentricities of LCC pricing may mean a flight advertised for €5 may cost more than €100, once the extra charges are calculated and the booking process is complete, resulting in consumers feeling deceived and 'ripped off' (Coles, 2007; Clark, 2006). Moreover, as noted above, the websites seem awkward and sluggish in facilitating customer complaints and concerns, and make it challenging for the users to contact the airlines. These difficulties and omissions are contrary to the ethos of designing a 'good system' to facilitate the full spectrum of customer service. It appears that in the LCCs' focused pursuit of lean, cost-efficient operations, customer service has declined in importance, whereby the justification given for neglecting meaningful customer service (i.e. managing complaints and concerns) are the low fares they offer customers.

It might be expected that the websites of those airlines that make it most difficult to complete customer service tasks such as making complaints would be rated as less usable than those where the task was achievable. On the contrary, the overall ease of use does not appear to be impacted by the poor ease of use in the complaints function, which would suggest that web designers need only concentrate on those features that are of high importance to the user in order to ensure that the user perceives the website overall as having high usability. As usability and user preference have been shown to be correlated (de Angeli et al., 2006; Lee and Koubek, 2010b), user preference may only require usability in certain key aspects of the website, rather than the website as a whole. Thus airlines can continue to design in such a way that discourages non-revenue generating activities while maximising revenue generating activities.

While LCCs have proven their ability to design well, if our suspicious study participants are correct, LCC managers intentionally instruct developers to design certain features poorly or perhaps neglect to instruct developers in these areas at all. Indeed, some IS/IT managers would appear to be in violation of their own software engineering *Code of Ethics and Professional Conduct* (Association for Computing Machinery, 2008: 1), which states software engineers and software engineering managers should act in the public interest and 'subscribe to and promote an ethical approach to the management of software development and maintenance'. The authors believe a more sophisticated professional code of ethics needs to be developed that explicitly recognises the capacity of technologies to produce questionable system features and barriers.

There is assumed ethicality in how information systems are designed and conducted. In respect of the case of LCCs discussed in this study and more generally, such assumptions need to be challenged. Educators must recognise some college graduates who become practitioners are choosing to use opaque design practices; it would appear there is malpractice about. The authors believe educators should not be neutral on this matter; they should be advocates of transparency and ethical design. On this key issue a discussion amongst stakeholders is required; more extensive teaching of 'good' practice and ethics in IS design is also merited.

Limitations and Further Research

Aspects of the research design limit the findings' generalisability. For example, this study examined four LCCs operating out of Ireland. Hence, the findings may not pertain to all LCCs operating globally. Further, although the researchers sought participants to represent a range of age cohorts (i.e. students in their early 20s to late 50s), the participants were drawn from a student population. Consequently, their responses may not reflect the broad spectrum of passengers who choose to travel with LCCs.

This study has identified a number of areas for further research. User preference for the individual websites was not measured in this study. However, website usability and user preference have been shown to be correlated in previous studies (de Angeli et al., 2006; Lee and Koubek, 2010b). In this study, poor usability in aspects of the website design that were less important to the user did not negatively impact the users' perception of the usability

of the website overall. Whether or not this disparity in usability levels within the websites impacts on user preference could be investigated further.

A second area for further study is to determine if regulation will resolve the issues identified as problematic by users. Regulation was discussed during the focus groups, with one participant stating:

There will always be regulation, but [LCCs] will always find a way around it.

The European Commission has implemented legislation (Article 23(1) of Regulation 1008/2008) that requires clarity in pricing by airlines. Whether the airlines are compliant with the legislation or have found innovative ways around it using questionable web design techniques could be investigated.

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A Framework to Manage the Early Value Proposition of Emerging Healthcare Technologies



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ABSTRACT

Health service managers and industry face significant challenges in implementing and delivering innovations for healthcare; shrinking budgets mean there is a need to understand more clearly the value of innovations.

An articulation of the value proposition, that is the value created for users by technology, is the key starting point for current thinking on open and innovative business models. The aim of this research is to develop a framework for ‘valuing’ a new medical device at the concept stage that balances benefit to the healthcare provider against commercial costs. This paper proposes that appropriate evidence-gathering activities such as determination of the clinical value proposition and early health economic tools such as the ‘headroom method’ can be utilised as part of the development process to contribute to the early stage estimates of value beneficial to both the health service and industry decision makers.

Key Words: innovation; emerging technology; open business model; health technology assessment; value proposition

INTRODUCTION

Healthcare accounts for a significant proportion of the global economy and managing rising healthcare costs is of major concern for all governments, particularly in times of slow economic growth and limited funding. Each year health-related spending grows

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often outpacing spending on other goods and services, meaning that the size of that slice increases. These cost increases have a significant effect on households, businesses and government programmes (Kaiser, 2007). Historically, the advancement of healthcare has been synonymous with the innovation of new medical devices and technologies. Medical devices are a significant and growing industry with a global market size of over US\$100 billion (Frost & Sullivan, 2008). For almost 50 years, spending on healthcare has grown by 2 percentage points in excess of gross domestic product growth across all Organisation for Economic Co-Operation and Development (OECD) countries (Drouin et al., 2008). In the United States (US) spending on healthcare accounts for a significantly large proportion of the economy: the US spends about \$7,400 per person on healthcare each year. Sixteen per cent of the US economy is devoted to healthcare (Kaiser, 2011). By 2018, national healthcare expenditures in the US are expected to reach \$4.4 trillion, which is more than double 2007 spending (Siska, 2009).

The medical device sector today is one of the most innovative sectors, improving and saving lives every day by providing innovative solutions for diagnosis, prevention and treatments (Eucomed, 2010). The largest single healthcare market for new medical devices is in the US, where sales are expected to exceed US\$100 billion by the end of 2010 (Frost & Sullivan, 2008). European medical technology sales are estimated to be worth over €72 billion (Wilkinson, 2009). The United Kingdom (UK) accounts for around 11 per cent of the European market and 3 per cent of the global market. Until the economic downturn in mid-2008 the growth rate in the European market was estimated as 5–6 per cent per annum. Some overseas markets have experienced significantly higher growth rates than Europe in recent years, with the Chinese market recording growth close to 11 per cent per annum until 2008 (Quotec, 2009).

Critical to the continued success of healthcare systems in developed nations is managing the adoption of innovative new technologies and medical devices. Doctors today are able to perform operations and procedures that they would not have deemed possible even a decade ago. Future developments in the fields of micromechanical systems, stem cell research, nanotechnology and remote medical informatics have the potential to dramatically change the accepted clinical patient care pathways. As well as this technology push, because of widespread internet access by the public, the patient who visits their doctor or general practitioner today is generally much better informed about their treatment options, which results in a patient pull for innovations that may be at least five to ten years from market as a result of necessary and rigorous regulatory hurdles.

Additionally, many national healthcare budgets are being reduced and healthcare systems are being faced with the possibility of major restructuring. Such is the case with proposals for healthcare reform of the National Health Service (NHS) by the government in the UK; this is currently receiving fierce objections from healthcare professionals. The Royal College of General Practitioners in a recent report raised concerns about charging for healthcare and issues relating to market forces and competition in healthcare (Royal College of General Practitioners, 2011).

There is, therefore, a need now more than ever to research methodologies to determine the early value proposition of new and emerging healthcare technologies. This paper explores the concept of the value proposition from a business model perspective and attempts to illustrate how early health economic approaches such as the headroom method can be applied to value innovative medical technologies in the early stages of development.

LITERATURE REVIEW

The rate of progress of innovations in healthcare in recent times has been most remarkable and the ability to innovate effectively is increasingly viewed as the single most important factor in developing and sustaining competitive advantage (Tidd et al., 2009). Indeed, innovation has become the mantra of organisations looking for economic growth in recent times (Malaviya and Wadhwa, 2005). Mulgan and Albury (2003), in their report on innovation in the public sector, state that bright ideas well implemented can lead to valued new services and the efficient delivery of existing ones at a time when the pressure on national purse strings is becoming even tighter.

Health innovation consists of complex bundles of new medical technologies and clinical services emerging from a highly distributed competence base. Health innovation systems are driven by the combination of institutionally bound interactions or 'gateways' of innovation and history-dependent trajectories of change often referred to as 'pathways' of innovation (Consoli and Mina, 2009).

Significant investment is often needed before a new medical device can enter even the first stage of clinical investigation and in many cases new healthcare technologies take decades to progress from concept to a product on the market as a result of intense and, in some cases, poorly understood regulatory requirements. Faulkner (2009) states that in the emerging area of tissue engineering technological innovation is conventionally seen as outpacing regulation – regulation usually 'lags behind' innovation. New regulatory arrangements are seen as responses to the composition and material qualities of novel technologies and practices. In more prosaic terms, regulation is seen as surveillance, policing, approving or disapproving, accrediting and so on. Thus regulation is not only seen as following innovation, but it is also seen as a socio-political force that is external to technological innovation and acts on it from a socio-political and non-technological realm of society. This adds to the challenges for innovators in the healthcare arena. Unlike the pharmaceutical sector, which has a well-defined route to market, it is generally accepted that the medical device industry has a less cohesive approach to new product development (Dixon et al., 2006).

Innovative Business Models

The need to examine the implicit and explicit business models within an organisation is essential in understanding how innovation actually takes place. History shows that the companies that continue to invest in their innovative capabilities during tough economic times are those that fare best when growth returns (Chesbrough and Garman, 2009). The

cross-disciplinary study of innovation is emerging as a new scientific field which has worldwide impact. There does not seem to be a slowdown in the societal interest for the innovation phenomenon (Fagerberg and Verspagen, 2009). Companies achieve competitive advantage through acts of innovation. They approach innovation in its broadest sense, including new technologies and new ways of doing things (Porter, 1990). Radical, breakthrough innovations create not only great industrial possibilities but also great social uncertainties. When a breakthrough medical technology is discovered the question arises as to whether to accept the possible risks involved or to defer implementing the innovation until more data are available, and, specifically, until others have taken up the innovation and demonstrated its efficacy, relative safety and market acceptance (Baba and Walsh, 2010).

Managers need a framework to help them understand what their organisations are capable of accomplishing (Christensen and Overdorf, 2000). An open business model, when used holistically, forces managers to consider the integrative nature of their business activity from an open innovation perspective.

A business model's great strength as a planning tool is that it focuses attention on how the elements of the system fit into a working practice as a whole, especially in terms of how perceived value is created. Innovation challenges differ from firm to firm and often some firms follow advice that can be wasteful and in some instances even harmful if applied to the wrong situations, but if solutions are tailored to address the right problems the innovation value chain can become a strong asset (Hansen and Birkshaw, 2007).

A business model performs two important functions: it creates value and it captures a portion of that value. A business model captures value by establishing a unique resource, asset or position within that series of activities where the firm enjoys competitive advantage. Open models create value by leveraging many more ideas, due to their inclusion of a variety of external concepts. A successful open business model creates heuristic logic that connects technical potential with the realisation of economic value (Chesbrough, 2006). The economic value of a technology remains latent until it is commercialised in some way. The same idea or technology taken to market through two different business models will yield two different economic outcomes and it can be said that a mediocre technology pursued within a great business model may be more valuable than a great technology exploited via a mediocre business model (Chesbrough, 2010).

Investigation of the elements of a business model is valuable in terms of translating business plans into business processes (Osterwalder and Pigneur, 2009). Chesbrough (2006) identifies six essential functions of a business model:

1. Articulating the value proposition – that is, the value created for users by the offering
2. Identifying a market segment – that is, the users to whom the offering and its purpose are useful
3. Defining the structure of the value chain required by the firm to create and distribute the offering, and determining the complementary assets needed to support the firm's position in this chain

4. Specifying the revenue generation mechanisms for the firm, and estimating the cost structure and profit potential of producing the offering, given the value proposition and value-chain structure chosen
5. Describing the position of the firm within the value network, linking suppliers and customers, including identifying potential complementors and competitors
6. Formulating the competitive strategy by which the innovating firm will gain and hold an advantage over rivals

In a recent paper on innovation in small high-tech medical device firms (Davey et al., 2011) one company stated that even though their technology has proven to be effective in an area that is of high priority to the health service at present they are finding difficulty in getting the necessary regulatory approval that will enable it to be adopted across the NHS because it acts in a different way to other technologies already approved for use. This indicates that having a unique product or technology is not enough to guarantee success within the healthcare sector; the innovative medical device must be shown to have a significantly high perception of value to all stakeholders to be adopted by policy makers in the health service. This is supported by the work of Vallejo-Torres et al. (2008) who state that the rapidly increasing range and expense of new medical devices has created a growing need to demonstrate that a new product is superior to an existing one in terms of value.

Value Propositions in Business and Healthcare

With ever tighter healthcare budgets there is an increasing need to demonstrate value in healthcare. Chesbrough (2006) simply describes the value proposition as the value created for users by the offering.

From a business perspective a value proposition can be understood as the statements of benefits that are delivered by the firm to its external constituencies. Modelling and mapping value propositions helps better understanding of the value a company wants to offer its customers and makes it communicable between various stakeholders. A formal approach to modelling a value proposition allows managers to seize mental models, understand and communicate value propositions, improve their implementation, compare them to the competition and eventually foster innovation (Osterwalder and Pigneur, 2002). The value proposition element of a business model gives an aggregated view of the value a company offers its customers. It can be further decomposed into its set of elementary value propositions. An elementary value proposition is a part of an overall value proposition; it is characterised by its attributes. These attributes capture the analysis of the value proposition and the reasoning as to why it could be valuable to the customer. Notwithstanding economic value, at this point social value is created either through use (e.g. driving a car), reduction of the customer's risk (e.g. car insurance) or by making his/her life easier through reduction of his/her efforts (e.g. home delivery of groceries). These attributes – namely use, reduction of risk and reduction of effort – may translate to time or cost savings, which could be beneficial social parameters in which to consider the value of new technologies in the healthcare arena.

As a basis for understanding the challenges that the changing nature of healthcare presents for accurate valuations it is helpful to briefly reflect on certain principles of valuation theory. Economic theory holds that the value of a firm is equal to the present value of the expected future cash flows the company will generate (Damodaran, 2002). Assumptions about the expected future cash flows and the uncertainties of those cash flows, however, often vary among investors. Consequently, the notion of value to whom and under what circumstances becomes important.

Valuations of healthcare companies are largely driven by the quality of the organisation's technology portfolio and management team; however, it is critical to note that good science does not necessarily equate to a viable business proposition and elegant technical solutions are not in themselves sufficient to drive investment (Anderson and Hill, 2006; Cosh et al., 2007). The ultimate success of a technology is its usefulness (Boer, 1999). The clinical problem solved by the technology and its degree of innovation are critical considerations in evaluating the quality of a healthcare technology. It is useful to consider whether the technology improves upon an existing solution or provides a new solution altogether, and the extent to which the technology disrupts current practice.

Specification of Research Purpose

Earlier research within the healthcare technology sector has shown that for new technologies that have not yet been adopted by the health service companies often have difficulty determining the clinical value proposition for their technology in relation to its advantages over existing treatment options (Davey et al., 2010).

Indeed for managers operating within a resource constrained healthcare system, determining the value of new innovations that have the potential to contribute to improvements in the quality of care while also providing cost reductions is undoubtedly becoming increasingly important.

In a finite resource healthcare system the cost effectiveness of a technology can be compelling evidence for its adoption. Purchasing and reimbursement decisions in healthcare systems with finite resources are increasingly influenced by formal health economic analysis. The opportunity cost of a technology is based on its incremental cost effectiveness, i.e. the cost associated with the benefits achieved from a technology compared to the next best alternative. Cost effectiveness assessments are made from the perspective of the healthcare provider using current UK norms for the value of a 'quality adjusted life year' (QALY) (Girling et al., 2007). The National Institute for Health and Clinical Excellence (NICE), for example, uses this approach for appraisal of potential new treatments for the NHS in England. NICE medical technologies guidance, although mandatory only in England, are reviewed and often applied to other areas of the UK (National Institute for Health and Clinical Excellence, 2011). Cosh et al. (2007) describe an approach to this problem of conducting health economic analysis under circumstances where effectiveness is necessarily conjectural and they state that if the problem is not ruled out by strategic considerations then the investigation should move to the next stage with a study of the clinical problem.

This paper uses a case-based approach to explore the methods for determining the early value proposition of emerging healthcare technology and how these methods link with the elemental business model approach for technology adoption by healthcare companies and organisations. The first case study demonstrates how determining the clinical problem definition at an early stage in the design of an innovation can provide insight to guide investment decisions for a technology that improves upon an existing solution in the field of cardiology. The second case study provides the reader with an illustration of how fundamental health economic principles encapsulated in the 'headroom method' can be utilised to give an estimate of the potential value of a technology that provides a new solution altogether in the emerging field of tissue engineering. The implications for the research are discussed in terms of how methodologies to determine the value proposition of an innovation can influence an organisation's business model and the case for adoption by decision makers.

METHODOLOGY

This research uses a case-based approach to describe the operation of two different but complimentary methods to determine the early stage value proposition of an emerging healthcare technology. The use of a case-based approach has been shown to be a suitable method to test and build theory (Voss and Voss, 2000). Previous authors (Lindahl and Nordin, 2010) have regarded case study illustrations as a useful research approach to explore the interplay of two different disciplines in new product development and evaluation and to develop models to show how previously disparate methodologies can be coordinated.

With the aim of developing systems and frameworks to manage and understand the early value proposition of emerging healthcare technologies two different technologies were chosen. The first case study technology was an improvement on an existing medical device in the well-established field of stenting for vascular disease. Field research was carried out to determine the opinion of expert clinicians in relation to the value of this innovation.

The second case study technology explains the terminology and application of the 'headroom method' to exemplify the potential value of a technology that provides a new solution altogether in the field of tissue engineering. In this case secondary data was utilised previously gathered from a survey of experts as it was difficult to get accurate valuations of the potential benefit of a technology for a procedure of which healthcare professionals had no prior knowledge or experience.

FINDINGS

Clinical Problem Definition

In some circumstances the decision to invest in a technology can be made without recourse to any formal method of evaluation. If an unmet clinical need can be identified and resolved, such as curing a common, chronic disease at low cost, then the decision makes itself. In 1895, when Roentgen's wife was persuaded to interpose her hand between his x-ray source

and a photographic plate he did not need a health economist to tell him he was onto a winner. These blockbuster discoveries come along only seldom and the cost effectiveness of most proposed new technologies is much more difficult to predict (Cosh et al., 2007). However, there is undoubtedly benefit in determining the potential clinical value of a new device of technology at an early stage in the development. The following mini-case-study on a new technology stent for peripheral vascular disease attempts to illustrate this.

Mini-Case 1: Initial Assessment of the Value Proposition for a Revolutionary Design, ArtiStent

A company had developed a new design stent that has the potential to benefit patients with peripheral vascular or arterial disease. In order to make a case to attract investment to fund a clinical trial with the technology it was necessary to determine the clinical value proposition. The 'ArtiStent' technology consists of multiple stent segments that interlock once crimped into a single balloon, but completely disengage from each other during balloon expansion so that each stent segment can articulate independently within the vessel to provide a biomechanically stable solution to the challenges of stenting in peripheral vessels. Stenting in these regions in the past has proven to be problematic with good short-term results but generally poor long-term results. Peripheral arteries are, generally, highly flexible vessels which undergo various bending, twisting and torsion modes in multiple planes.

In order to determine the potential clinical value proposition for this device, taking into account the positive and negative attributes, target clinicians who were likely to benefit from this technology were identified and meetings were held with a number of leading consultants from both the vascular surgery and interventional radiology departments in the Belfast Health and Social Care Trust and the South Eastern Health and Social Care Trust. The clinicians were asked a series of questions about:

- Clinical treatment routes
- Disease context
- Current treatments
- Challenges with current stent designs

This enabled the drivers for the clinical success of the ArtiStent to be identified and adoption issues to be clarified.

A potential *clinical value proposition* of the ArtiStent design was qualified as follows:

- A bespoke solution that gives 'better fit' to blood vessels, improving the outcome for patients
- Has the possibility to be used in vessels where there is branching, reducing the need for bypass surgery and saving hospital costs
- Challenging areas where there is a large degree of movement of the vessels (e.g. around the inguinal ligament) could now be stented due to increased flexibility of design

This qualitative work on determining the clinical value proposition proved to be beneficial for the company developing this technology and has confirmed the potential for an innovative device in the treatment of peripheral arterial disease and the requirement for future investment in this area.

Early Health Economics: Headroom Method

When modelling, cost effectiveness parameter estimates are typically obtained from direct studies, ideally from large randomised controlled trials. However, in the case of a technology yet to be developed, or in the early stages of development, the very nature of the product is uncertain.

The headroom method simply looks at the potential of a clinically defined market. Instead of asking, 'How cost effective will the technology be?' – the question for conventional cost effectiveness analysis of a technology already developed – it can be useful to ask, 'Would it be cost effective if it works as well as one would hope?' In other words, optimistic assumptions are made about the incremental effectiveness of the proposed treatment over the best alternative.

It is then possible to calculate the incremental cost of the technology where it could still be cost effective; this is called the 'headroom'. The headroom method can lower the risk of embarking on an investment that is doomed from the outset (McAteer et al., 2007).

Cost effectiveness analysis aims to quantify the incremental cost effectiveness ratio (ICER), specifically the extra cost per unit of benefit when comparing one treatment, technology or programme against another. This incremental health benefit is expressed in QALYs (life years weighted by 'quality of life' (QoL), where 1 signifies perfect QoL and 0 represents death). The total incremental QALY gain for such a technology is a function of improvement in QoL (Δ QoL) and the duration over which this improvement is sustained:

$$\text{Equation 1: } \Delta\text{QALY} = (1 - \Delta\text{QoL}) \times \text{time in years}$$

Incremental QALYs are converted into monetary terms to offset the financial costs of the treatment to arrive at a 'net health benefit' for each treatment (Ades et al., 2004). If the societal willingness to pay is assumed to be an ICER of £30,000 (€45,000 or \$60,000) per QALY (Devlin and Parkin, 2004), the headroom can be calculated as follows:

$$\text{Equation 2: } \Delta\text{Cost (headroom)} = \Delta\text{QALY} \times \text{£30,000}$$

Where $\text{max}\Delta\text{Cost}$ is the headroom – the maximum additional cost of the new treatment over the comparator for the new treatment to be deemed cost effective.

It can be said that if there is little or no chance that the technology could be marketed at a price that would keep the $\text{max}\Delta\text{Cost}$ below the cost effectiveness threshold, then the technology should not attract further investment (Cosh et al., 2007).

Mini-Case 2: Headroom for Engineered Bladder

A tissue engineered bladder substitute could be used as an alternative to the use of bowel tissue in substitution cystoplasty after resection for cancer.

Information regarding quality of life after cystoplasty is sparse, and those studies that do exist are not easily translatable into QALYs (Venn et al., 1998). In the light of this and the complex nature of the medical conditions involved in cystoplasty, an estimate of the disutility of this procedure was made via a survey of urologists. The median utility value found was 0.95. The mean age of the presentation of this condition is 72 years (Sangar et al., 2005) and, while reported survival rates vary widely, we may assume that patients suitable for a tissue-engineered solution will have a better than average five year survival and will also be younger than average. Therefore, we assume a mean of ten years of life among this group.

These estimates give a Δ QALY of $10 \times (1 - 0.95) = 0.5$, which in turn suggests a headroom of $\pounds 30,000 \times 0.5 = \pounds 15,000$.

The above calculation does not take into account savings of $\pounds 1,000$ per patient by avoiding bowel surgery. Headroom is hence $\pounds 16,000$ per patient treated, resulting in the potential equivalent cost savings to the health service.

Following the methods outlined the investor can make an intuitive decision to invest based on the outcome of the clinical problem definition and headroom method or they can perform a more formal valuation of investment analysis; either way, the additional information gleaned enables a more robust value proposition to be developed within the business model context.

The Relationship between Methodologies for Estimating the Early Value Proposition and the Business Model

The two mini-cases outlined in this paper have shown the benefit of assessing clinical opinion on a new technology at an early phase in its development. The key to successful assessment of the early value proposition of a new healthcare technology is knowing what methodologies to use and when.

Determination of the clinical value proposition can be extremely beneficial to innovating companies when the device or intervention being developed is an improvement on an existing solution. Defining and evaluating the clinically relevant perceptions on the value of an innovation can enable the developing company to enhance marketing of the attributes of the technology that are likely to provide greatest clinical benefit, thus benefiting the company's marketing strategy as a result of a greater knowledge of the target market. Additionally, a greater understanding of the clinical problem definition can enable improvement in linkages in the value chain and value network by strengthening the relationships an organisation has with the users of the technology.

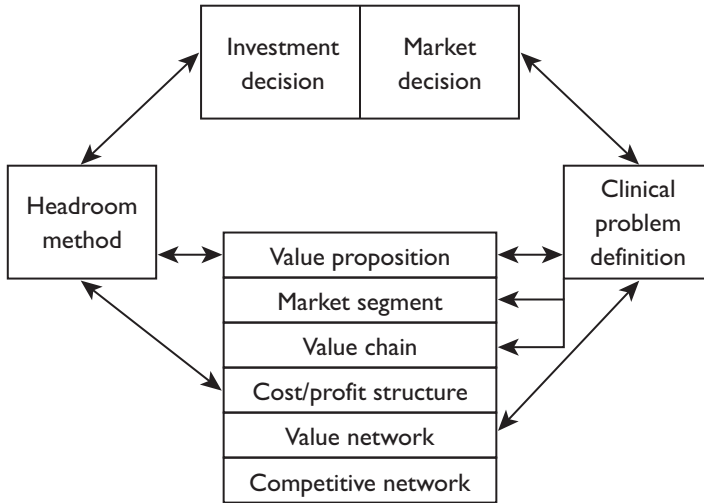
The value proposition is key to a company's business model and Figure 1 shows the role of the methods in relation to the six-element business model proposed by Chesbrough (2006).

By understanding the headroom method – that is the additional value or 'headroom' that an emerging innovation can provide compared to existing treatments – an organisation is likely to be able to stay ahead of the game and will be willing to invest in innovations that are radical but have the potential to provide great healthcare solutions at reduced costs.

Specifically, the headroom method can benefit early estimates of the likely cost or profits for an innovation, providing valuable information to help guide investment decisions.

The model in Figure 1 aims to illuminate the conceptualisation of these linkages, providing potential beneficiaries of an innovation with knowledge of its benefits while the innovation is still in the development phase.

Figure 1: Conceptualisation of the Methods to Determine the ‘Early Value Proposition’ of Healthcare Technologies with a Business Model Framework



As shown in Figure 1, determining the early value proposition within the context of an elemental business model can provide a framework for investment decisions which can illuminate a situation that may otherwise appear hard to fathom for healthcare decision makers.

DISCUSSION

In the face of scarce resources when the budget for new healthcare technologies is ever limited, methodologies to assess the early value proposition for prioritising the most beneficial healthcare development likely to succeed is indisputably valuable.

As development proceeds, it is important to revisit the clinical problem and economic data with new information regarding the likely effectiveness of the technology as it becomes available. Mina et al. (2007) discuss the mechanisms through which medical knowledge emerges, grows and transforms itself. This is a process that is distributed across time, space and epistemic domains. It involves the development of correlated understandings about the nature of medical problems and the search for solutions to these problems. It entails a shift from the exploratory undertaking of inquisitive individuals to the more systemic

interactions of dispersed groups of practitioners competing and cooperating to solve scientific and technical puzzles in a variety of institutional settings and different incentive structures.

A headroom analysis is primarily useful as a barrier to misguidedly investing in those devices that can never be cost effective. As research progresses, estimates of costs and effectiveness can be updated.

It should be noted that the value of applying these methods at the supply side is dependent on the planned technologies being aimed at the third-party payer market. The value that consumers and/or patients place on a technology will undoubtedly be different to health technology assessment agencies and the health service in terms of willingness to pay. For instance, the National Institute for Health and Clinical Excellence in the UK has developed formal methods of economic evaluation that explicitly set funding norms, one effect of which is to moderate acceptable prices for drugs and devices. Meanwhile, from a vendor's perspective, this changing terrain will affect the choice of product to invest in and the level of investment that is warranted, given the price a particular product may attract in the marketplace. This places considerable pressure upon early stage decisions. However, much of the long-term impact of a given device will be shaped by such decisions, which are often made quickly and with limited evidence (Girling et al., 2010).

The process of innovation in medical devices is often one of continuous incremental improvements in close interaction with the users of the technology (Siebert et al., 2002). Therefore, interaction between all stakeholders as early as possible in the development cycle is extremely beneficial. Medical device users are an extremely heterogeneous group and for any one device they may include not only healthcare professionals but also the patients who may use the device themselves or receive treatment using the device and, in some cases, carers who are relatives and friends. There are a number of factors that make capturing user requirements for medical device development challenging, including the ethical and research governance involved with studying users, as well as the inevitable time and financial constraints. Investment in user requirements research benefits the developer as well as the user and the healthcare sector. The increasing recognition, among healthcare purchasers and regulators, of the links between good design and patient safety, clinical and general efficiency and satisfaction has led to formal requirements for user research by funders of development work on medical devices (Martin et al., 2006).

When making early-stage valuations, it seems that value is enhanced when the outlook is uncertain – uncertain cash flows appear to be more valuable than certain cash flows. It does not amount to risk preference; nor is it an invitation to wilfully overstate the degree of uncertainty involved. Uncertainty is advantageous only in a certain sense. In the commercial situation the option to proceed with the product while bypassing the development phase is not available, since the development phase is essential for the realisation of a product concept. Thus it is not the value of the development information that should inform the investment decision, but the full early valuation of the product (Girling et al., 2010). Additionally, the long-term perspective has been adopted by Mina et al. (2007), which stresses another important, and nevertheless often forgotten, feature of the process of emergence,

growth and transformation of a radically new understanding and treatment of diseases: its characteristically irregular tempo. The pace of innovation is uneven through time and the benefits that are now associated with successful new techniques are nowhere to be found in the performance of their first applications. The most relevant gains were usually obtained well after the original insights (and devices) were conceived and only in combination with other developments that were not at all foreseeable in the first place. Technologies that in the long run have proven remarkably successful initially grew, and often did so for several years, in conditions of uncertainty with regard to their relative efficiency but on the basis of an increasingly collective vision of their potential benefits. Mina et al. (2007) go on to state that in the case of statins diversified incremental change through shared practice, and not the genius of pioneers alone, was the key to their long-term affirmation.

CONCLUSIONS AND IMPLICATIONS

Incorporation of available evidence from both clinicians and users into the value proposition helps companies to develop more informed business models and improve their target market knowledge and competitive strategy. There would be clear benefits to the enhanced study of frameworks and models of innovation capable of studying interactions between service providers, patients and policy makers, and how these complex interactions determine the timing, direction and success of innovations in the public sector (Windrum and García-Goñi, 2008).

Implications for Practice

For virtually any organisation the ability to raise capital is critical to success. A reasonably accurate valuation is, in turn, critical to capital creation from investors in terms of decisions relating to future cash flow streams. The extremely dynamic nature of healthcare organisations will make application of the traditional approaches to valuation more difficult in the coming years. In addition, Carden et al. (2010) state that the combination of greater volatility in cash flows and less accurate valuation of those flows may increase the cost of capital for these enterprises, thereby changing the economic fundamentals of the business. They warn that the unintended consequences of making radical changes to lower the cost of healthcare, only to find that those changes have increased its costs by making the cost of capital higher, would serve to exacerbate the already almost intractable problem of national healthcare cost. The development of a framework which incorporates evidence-gathering activities such as determination of the clinical value proposition and early health economic tools at the conception or development phase of an innovation, therefore, is likely to be highly beneficial. By utilising the most appropriate method for evaluating an early stage technology or intervention companies are likely to be able to reduce the time to first patient with minimal financial risk. Also, enhancing potential customers' knowledge of the attributes and benefits of an innovation while the innovation is still in the development phase is likely to nurture their interest and desire for the technology at an early stage. This is applicable to other high technology innovative sectors such as aerospace engineering, information technology and, in particular, smart consumer devices such as the iPhone.

Future Research

The need for methods to determine the early value proposition of innovative healthcare technologies to all stakeholders, including patients, clinicians, industry, health service organisations and governments, is likely to increase in the near future as a result of limited budgets. Michael Scanlan (2010), who at the time was Secretary General of the Department of Health and Children (now the Department of Health) in Ireland, stated that technology, affordability and choices will always be issues for policy makers:

Many potential investments can be shown to provide value for money but affordability is a major factor which is clearer now in the current economic situation (Scanlan, 2010).

Future research is required to develop interdisciplinary methodologies for measuring the value of innovative medical technologies in the early stages of development to allow improvements in healthcare to be made without immeasurable increases in the cost of care.

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Enhancing Professionalism through the Continuing Education of Micro and Small Tourism Enterprises: A Model for Programme Development



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ABSTRACT

This paper originates in the context of growing recognition that the success of the global tourism industry will ultimately depend on the professionalism of its workforce; with recent policy targeting specifically the need for enhanced professionalism in the fragmented, SME-dominated Irish industry. Education's role as a key driver of the professionalisation process is undisputed; however, continuing education for owners/managers of micro/small businesses is problematic. Hence, the authors' tertiary institute developed a new Bachelor of Science (BSc) in Small Enterprise Management, based on an andragogical philosophy and problem-based learning approach (PBL). This paper details the nascent BSc's development led by stakeholder involvement and reports on the first stages of a longitudinal study on the programme's learning impact thereby providing insights into how the particular sector-specific challenges were met through an innovative programme, tailor-made to be responsive to its specific audience's major needs for a sense of involvement, relevance and flexibility.

Key Words: problem-based learning; professionalism; blended learning; professional development

INTRODUCTION AND BACKGROUND

Fáilte Ireland highlights that tourism 'is one of the largest and most important components of indigenous industry within the Irish economy' - the total contribution in 2008 of the tourism industry to gross national product was approximately 4 per cent (€6.3 billion) (Fáilte Ireland, 2009: 6). Furthermore, tourism is seen as a major contributor to achieving sustainable economic development of rural regions (Fossati and Panella, 2000). Despite the

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current economic difficulties that have severely impacted the tourism sector, the outlook for this sector is strong globally but less so from a European perspective – a 46 per cent drop in tourism traffic is expected by 2020 – thereby indicating the urgency of establishing interventions to circumvent this expected erosion. In light of the foregoing, a major objective of national policy is the enhancement of the industry's professionalism, seen as a major vehicle for improving the innovativeness and the overall competitiveness of Ireland's tourism sector (Government of Ireland, 2007; Tourism Policy Review Group, 2003).

The Irish tourism industry is fragmented and composed mainly of a heterogeneous mix of micro and small enterprises (Travers et al., 2004) that are particularly susceptible to a myriad of external threats and environmental factors which impede their long-term development and competitiveness (Dale and Robinson, 2007). In addition to facing these broader economic issues, tourism operators are commonly characterised by resource poverty, poor strategic focus and dependency on the focal owner/manager (Morrison and Teixeira, 2004; Dale and Robinson, 2007; Kelliher and Reinl, 2009), often resulting in a reactive rather than a proactive response to their external environment. The scale of the average business dictates that they have different problems, solutions and environments than their larger counterparts (Leitch and Harrison, 1999); their scale also presents particular trading conditions and management practices not seen in larger operations. For instance, the micro/small enterprise owner/manager often has lifestyle objectives which compete with business objectives, such as a desire to spend time with the family, which can hinder business growth (Morrison and Teixeira, 2004). The micro/small enterprise owner/manager must be multi-skilled and flexible, as they are expected to become involved in general operations in addition to performing more executive functions, thereby reflecting the 'hands-on' nature of the industry (O'Leary and Deegan, 2005: 428).

In the context of growing recognition of the importance played by these small businesses in terms of local community and regional improvement there has been renewed focus at a national level in terms of policy development to support and facilitate their growth and stimulate innovation in these firms (Jones and Tilley, 2003). The literature suggests that professionalism is a determinant of innovation in small tourism firms (Sundbo et al., 2007), yet these micro/small businesses face many obstacles to professionalism, such as inept management skills and low levels of training and education (Dale and Robinson, 2007; Jones and Tilley, 2003). However, both Johnson et al. (2006) and Sundbo et al. (2007) have argued that professionalism can be realised through education. The role of education is all the more important given Hjalager's (2003: 33-4) argument that 'closer links between stakeholders and educational institutions is a step towards the professionalisation of the entire sector and to improving the knowledge base and innovative and economic capabilities.' Yet, tourism education has been criticised for its lack of responsiveness to industry needs (Baum, 2006) in addition to its over-emphasis on vocational training in craft skills, and lack of appropriate and available tertiary education (Fáilte Ireland, 2004, 2007; Inui et al., 2006). Furthermore, while the larger tourism businesses benefit from a graduate intake and continuing executive development, the owner of the micro/small tourism operation is limited in their professional development. Indeed, the literature indicates that these

owners/managers are lacking in entrepreneurial behaviour (Morrison, 2006) and competencies in such areas as marketing, information technology, quality assurance, pricing policy, innovation and knowledge management (Fáilte Ireland, 2004). As a consequence, a key aspect of governmental response is the targeted education of the micro/small enterprise owner/manager, with specific reference made to the development of higher levels of professionalism (Tourism Policy Review Group, 2003).

In light of the foregoing, Fáilte Ireland began a tendering process for the delivery of a degree-level programme to address this deficit, and the authors' tertiary institute was successful in this process,¹ resulting in the development of a new three-year Bachelor of Science in Small Enterprise Management (BSc); the rest of this paper will detail the operationalisation of this initiative, providing a model for future programme development. The next section presents the BSc's development, including the primary steps taken in deciding on the underlying teaching philosophy, key themes for the content of the programme and the stakeholders' fundamental parameters for consideration in the design and development process. We then discuss the implications for programme delivery and provide our conclusions.

MODEL DEVELOPMENT: PRIMARY DATA COLLECTION CONTRIBUTION

Research Methodology

A review of the literature surrounding learning theory, in particular that which was pertinent to adult micro/small business learners, was a major component of the methodology. In addition, in the past decade there has been growing recognition of the importance of stakeholder involvement in the development of new educational initiatives and, in particular, the need for higher education to be responsive to stakeholder needs (Enterprise Strategy Group, 2004; Hynes and Richardson, 2007). In this context, the programme design team viewed the consultative process as invaluable in order to ensure that higher education meets not only the knowledge needs of its targeted learners but also their generic skills needs (this is a key component of the model for programme development illustrated in a later section of the paper). Indeed, it was essential that the course design team² gathered detailed and rich information concerning the degree's major dimensions: content, context, process and outcomes. In many respects, each of these four dimensions of the BSc represented a 'blank sheet' and, as a consequence, the model development involved a number of stages in order to promote a culture both inclusive and responsive in terms of the BSc's design and implementation. Furthermore, in order to develop the model, a qualitative methodology was selected as it offered the opportunity for a collaborative context for two-way dialogue with the relevant stakeholders, thereby generating rich data detailing their respective opinions and perceptions to inform programme development. The data was collected through the following four stages:

1. Discussions with Fáilte Ireland (the funding body) personnel responsible for education and training to identify module themes (five sessions over spring/summer 2009)
2. Round-table discussion with practitioners to obtain their perspectives on module themes (4 June 2009)

3. Pilot study and completion of feedback forms (16 February 2010)
4. Post-pilot interviews with practitioners (1–9 March 2010)

The next section presents descriptive details on each stage of the data collection as well as each stage's findings.

Data Collection Stages and Findings

Stage 1: Fáilte Ireland Discussions

From the earliest discussions between the course design team and the funding agency³ it was clear that Fáilte Ireland had a clear set of requirements that would need to be met by the nascent degree. The first stipulation was for the programme to be truly national in its design, development and delivery. The second concern from the funding agency was that the degree should be relevant and customised to the needs of the micro/small tourism enterprise. In particular, Fáilte Ireland stressed that the programme should reflect the latest educational thinking on design and delivery.

Based on the foregoing, as well as the extant literature surrounding the educational needs of micro/small business operators, it was decided to apply an andragogical philosophy⁴ to the new BSc programme. Within this philosophy, the programme recognises the value of the accumulated experience of the students; as recommended by Augier and March (2007), the aim is for the participants to achieve a balanced integration of new academic knowledge with prior experiential knowledge, through the application of both sources of knowledge to real-life problem scenarios. A key outcome of these discussions, therefore, was the decision to use blended learning (as detailed below) as the mode of delivery and employ problem-based learning (PBL). PBL has an action learning ethos⁵ and is founded on Dewey's (1938) belief that experience is a major source of learning as well as Kolb's (1984) theory of experiential learning. With its emphasis on self-directed learning, PBL utilises small student 'network' groups (of no more than five or six students) and the role of the lecturer is not to simply be a 'conveyor of information', rather they act as facilitators and mentors in the learning process, guiding learners to appropriate resources. Furthermore, the literature indicates that PBL has been identified as conducive to achieving the high-level skills, knowledge and appropriate personal traits to grow and transform enterprises (Duch et al., 2001; Burns and Chisholm, 2005) (in line with the funding body and institute's strategic aim to enhance tourism professionalism).

Hanke's (2009: 13) examination of PBL and entrepreneurship reveals many reasons why PBL is ideally suited to the development of professionalism; for example, it 'encourages students to adopt a mutual commitment to excellence', similar to a professional colleague group encouraging a code of ethics and standards of practice. Furthermore, Inui et al. (2006: 339) contend that 'skilled individuals are necessary to the industry, but it is the reflective ones who have the insight to question and improve common practice in the context of tourism development', while Hanke (2009: 13) argues that PBL enables participants 'to question the existing standards, methods, and processes'. Indeed, Westcott et al. (2010: 36) stress the benefits of PBL in developing independent autonomous thinking

and reasoning within a professional context, as well as a strong professional identity 'by considering professional issues and contexts throughout the learning and becoming confident in articulating these', while at all times maintaining relevance for the practitioners.

The consultation with Fáilte Ireland, the direct engagement with tourism industry entrepreneurs in a round-table discussion and pilot session, and the utilisation of a PBL ethos for the programme highlight the course design team's commitment to relevance and customisation of the BSc to the needs of the micro/small tourism business sector. This resulted in an increased awareness of the importance of developing insights into critical areas for the tourism entrepreneur such as networking and business planning. The imperative for the BSc to develop graduates as tourism professionals with the ability to address challenges and opportunities facing the Irish tourism industry as well as enhanced entrepreneurship and innovation was also highlighted in discussions with Fáilte Ireland.

Findings: The discussions with the agency resulted in agreement on a number of guiding themes for the programme:

- *Market engagement and web technology* – enabling the participants to develop effective business models in a web 2.0 environment where the internet is driving tourist information, communication and reservations.
- *Tourism business processes* – highlighting effective practice in service operations for tourism entrepreneurs.
- *Network development* – addressing the challenge for the industry in developing sustainable tourism networks.
- *Entrepreneurial development* – it is critical that owners/managers of micro/small tourism enterprises develop the functional capability and critical skills needed in a hyper-competitive environment; this is fundamental to enhanced professionalism.
- *Sales and strategic market development* – effective engagement with the market is essential for Irish tourism.
- *Tourism competitiveness and innovation* – key challenges for Irish tourism lie in driving a competitive tourism destination and also in developing innovation in service design, delivery and communication. Fáilte Ireland has highlighted the importance of assisting the industry in addressing these challenges as articulated in a number of Irish tourism policy studies.⁶
- *Environmental and energy management* – in line with the emerging green economy which has implications for cost control and target marketing for tourism enterprises.

Stage 2: Practitioner Round-Table Discussion

The major objective of this stage was to obtain the viewpoints of the targeted practitioners on module content – both generic skills and discipline-specific knowledge. The round-table

discussion involved nineteen practitioners (TLN (Tourism Learning Network) certificate holders) and was facilitated by two of the paper’s authors. The sample of practitioners who were recruited was chosen via convenience sampling involving the following criteria:

1. They were from the targeted cohort (past TLN participants with the Certificate (see endnote 1))
2. They were closely located to Waterford Institute of Technology (WIT) (from the counties of Waterford, Wexford, Kilkenny and Tipperary) (as it was held at a busy time of year, the course design team did not want to ask individuals who would have had to add extensive travel time to the time away from their business)
3. They were perceived by the team to be the most likely interested in the BSc
4. They represented a diverse set of tourism providers, from hospitality services and attractions to micro/small and medium-sized accommodation providers

In order to provide a starting point for the discussion, practitioners were first asked to write down three major issues or challenges they were currently facing in their business or felt they would be facing in the future. This was then followed by the authors asking one of the practitioners to identify and relate to the group their issue, challenge or problem. What followed was a free-flowing discussion among the practitioners in which many issues and challenges were identified.

Findings: The analysis of this stage found that there was considerable agreement among the participants concerning their needs. The issues and challenges, both personal and professional, that were identified by the participants are detailed in Table 1 below. In Appendix 1 there is a brief synopsis of practitioner comments which reflect each issue or concern.

Table 1: Issues and Challenges Identified during Round-Table Discussion

Business planning	Environmental law/ regulations	Keeping a positive outlook	Stakeholder management, most particularly with local authorities
Business writing skills, especially with regard to writing funding applications	Finance/accounting	Leadership	Strategic perspective
Change management	Human resources	Marketing knowledge and skills	Supply chain management
Conflict management	Innovation	Negotiation	Time management
Customer service	Information technology/ web/social media skills	Project management	Verbal communication skills

Stage 3: Pilot Study and Completion of Feedback Forms

The course design team felt that this stage was critical because of the lack of academic staff experience with problem-based learning and blended learning; both are new initiatives in the School of Business. It was challenging for the team to ensure that the design of the pilot resulted in obtaining rich, accurate data about these two key elements of the BSc.⁷ Equally, this stage was crucial in ensuring that the targeted cohort were major contributors at each key step of the BSc's development. The pilot study and the feedback form were crafted by the authors in order to gather information from potential participants of the BSc concerning:

1. Their response to PBL
2. Perceived problems arising in connection with PBL
3. Particular challenges in connection with working in an online environment
4. Barriers to completing the assessment
5. Any other issues or concerns arising

Although the course design team made every attempt to make the pilot realistic, there were limitations to its 'reality'. For instance, the depth and breadth of resources to be reviewed for the assessment fell short of Level 7 standards,⁸ therefore results in all likelihood do not fully reveal latent issues and concerns in connection with study skills, time management, coping with the level of work expected, teamwork, etc.; also, the assessment did not attract a grade, hence it was perceived that this had a negative impact on the level of individual and team effort in completing the assignment. However, despite the foregoing, it is perceived by the authors that the pilot PBL process accurately reflected that which occurs in an actual classroom context. As a guide to other studies, the following paragraphs outline how the pilot study was implemented.

Once again, convenience sampling was utilised, employing the same criteria as Stage 2 but the choice of individuals was not limited by distance. Fifty letters were sent to past TLN participants who obtained certification, inviting them to participate in the pilot study – the sample was comprised of practitioners who had attended the prior round-table discussion and those who had not. Eighteen positive responses to the course design team's invitations were received and all eighteen participants attended the workshop.⁹ For those who had not attended the prior event, their letter contained a brief description of the BSc. It was explained to both sets of participants that the pilot involved two steps. The first step would last from 10.00 a.m. to 2.30 p.m. (including lunch) and would involve the following agenda:

- Introduction to the programme, including update on progress to date
- Overview of programme schedule and delivery plans
- Introduction to the WIT eLearning support website Moodle

- Introduction to problem-based learning
- Division of learners into teams¹⁰
- Introduction to module and presentation of ‘trigger’¹¹
- Team roles allocated and team rules identified
- Brainstorming session – to identify learning issues
- Presentation to teams of assessment to be completed; as a start, some online resources were given to the learners by the facilitators

The second step involved working in teams to produce a ‘solution’ to the trigger. The workshop unfolded as outlined in the above mentioned agenda. Participants were divided into four teams; each team was facilitated by one of this paper’s authors. At the end of the workshop each team was asked to provide to the course design team a written report – no more than 250 words – which would be assessed. This document was to be uploaded to the pilot’s Moodle site by each team one week later. All teams uploaded their assignment on time.

Findings: Based on post-pilot discussions between the authors several major findings from this stage were determined:

- The practitioners quickly grasped the PBL process.
- The participants saw the PBL process and trigger as engaging and very relevant to them.
- The time that they would need to devote to their studies was a major concern (both in terms of time per week as well as the degree’s three-year duration).
- The financing of their fees was also a key concern.
- Obtaining exemptions for prior learning was another major issue.

In order to capture immediate feedback from the participants on the pilot study a short, highly structured questionnaire was prepared by the course design team; the feedback form’s design was based on PBL feedback forms which had been previously utilised by the authors (results are listed in Table 2). The findings reflect the high level of engagement which was observed by the authors during the pilot study. All mean scores are at the high end of the scale.

Table 2: Pilot Study Participant Feedback Results
(n = 18; Scale: 1 = Strongly Disagree and 5 = Strongly Agree)

Pilot Study Participant Feedback Results	Mean
My first impressions of the BSc degree programme were positive	4.22
From what I have heard today, I believe the content of the BSc programme will suit my needs	4.11
I found the subject content of the BSc programme was relevant to me and my business	4.22
I believe the online forum provided (Moodle) will make it easier for me to communicate with others in my group	4.35
I enjoyed the chance to discuss the problem posed amongst our team	4.50
I understand the role each team member plays in problem-based learning	4.39
The role of the facilitator in problem-based learning was made clear	4.39
The problem presented to us as a trigger was of relevance to me	4.33
I believe I have a fair understanding of what problem-based learning is all about	4.28
I have a good idea of the steps involved in the process of problem-based learning	4.11
I am interested in finding out about enrolling on the BSc degree programme	4.39

Stage 4: Post-Pilot Interviews

The interviews were scheduled for the week following completion of the team assignment, allowing the participants time to reflect on their recent experience involving the pilot study; most specifically, the team was interested in gathering information on their experience in completing the assignment. Seventeen of the eighteen¹² pilot participants were interviewed over eight days by one of this paper's authors. On average, each interview lasted 35 minutes; the semi-structured nature of the interviews allowed for follow-up questions and probing on pertinent issues raised by the participants.

Findings: Key findings from the interviews are listed below:

- *Study time and semester timing* – all interviewees perceived that they did not have sufficient time in their schedule to devote to study; some concern was expressed concerning work–life balance. For example, one participant stated 'difficulty to set-out this time totally to myself ... added stress that this would bring'. Some participants indicated that semester scheduling would need to take into account that they take their holidays in September–October and also that there is a national movement to extend the tourism season, stating, 'The problem is we take our break in September–October and there's probably quite a few others in the same boat' and another stated, 'I'm organising a festival in late September, so I won't be available until October, really.'
- *Length of degree* – six participants indicated that the necessary three-year commitment was daunting.

- *Motivation* – some participants found the pilot study to be motivating in regards to considering further education; one individual stated ‘I am awake again’ and another stated ‘It has got me thinking again.’
- *Group work* – some concern was expressed in connection with working with others to complete assignments, such as an unequal burden of work. Five participants indicated that they were accustomed to being self-sufficient and were concerned over having to rely on the skills and abilities of others. For example, one interviewee commented, ‘What we had to do was a very small thing ... but some of the others took forever to do it’ while another participant stated, ‘You always get studiers, then others not so into it.’ However, others welcomed the added support from peers in completing assignments, stating, ‘Gained a group with similar problems and needs’ and ‘People were willing to help each other’, while others indicated that they were ‘...well used to running a meeting’.
- *Group mix* – six of the participants indicated that groups should have a good mix of businesses and management roles.
- *Chairperson role* – each of the four chairpersons drew attention to their role and the responsibilities that went with it – none of the other PBL roles (scribe, timekeeper and reader) were highlighted in the interviews.
- *Resource poverty* – this was in regards to manpower and financing the degree. As one participant stated, ‘It’s all down to me and my husband – everything’ while others stated, ‘With a young family, the cost is going to be a decider’ and ‘My workplace will not subsidise my training, or allow me time off for it, so these six days [modules’ residential workshops] would be my holidays.’
- *Distance learning* – the issue of geographic spread of the group and also the need for face-to-face interactions between residential workshops was raised by two and four interviewees respectively.
- *Technology* – several interviewees indicated concern in connection with using the forum function in Moodle, their information technology (IT) skills and their lack of broadband (however, only two indicated they didn’t have broadband), while others indicated technology ‘Will make it a whole lot easier’ and ‘Moodle side – a dream.’
- *Relevancy* – the BSc needed to be relevant for their business and for them personally; some indicated that they saw PBL as providing relevancy: ‘Rather than having a lecture, everybody is involved in the problem ... and rather than telling us the answer – our experience is brought into it’; ‘PBL is brilliant! ... a workman’s way of solving problems’; and ‘One really is getting to grips with the material – you are learning as you go along, going through the research.’
- *Academic self-confidence* – one individual felt reassured about having the ability to complete the degree after the pilot study whereas another individual indicated that it created a ‘Tiny element of self-doubt in my mind’.

IMPLICATIONS FOR PROGRAMME DEVELOPMENT

Throughout the programme development process the need for both stakeholder involvement and a student-centred approach has acted as a guiding principle. This involvement has provided invaluable feedback to the design team, which forms the basis for the model for programme development, as illustrated in Figure 1. The model represents the integration of the feedback and the creative means by which the design team responded to the initial findings, matching the targeted cohort's needs through a variety of approaches. Earlier in this paper, the role of PBL was examined as one of the innovative approaches employed; the others are as addressed under the following headings:

- The role of a blended learning approach to delivery
- The role of peer group support
- The role of induction
- The role of recognised prior learning (RPL)

The Role of a Blended Learning Approach

The choice of a blended learning approach to delivery was a key outcome of this study. Blended learning is attributed to the Open University's model of combining face-to-face support with distance learning (Sharpe et al., 2006), and encourages the development of skills and knowledge through engaging and challenging the learner in different ways. Rather than the traditional classroom-based, teacher-centred approach, the blended learning approach offers a variety of different delivery methods, designed to be more student centred (Foley et al., 2007). Indeed, blended learning aims to combine the best features of the interaction between student and instructor with the advantages of asynchronous learning. By its nature, asynchronous learning offers the participant the advantage of choice in time and pace of study (Lawless et al., 2000). It is perceived by the team that this mixed mode approach should have a positive impact on student retention. In a learning context Stokes (2001) argued that the following are the benefits of a mix of delivery methods:

1. The enhancement of cooperative learning (Lave and Wenger, 1991)
2. The mirroring of the informal on-the-job approach to learning preferred by micro/small business owners/managers
3. The accommodation of tailor-made content to suit individual needs

However, there are issues connected with distance education as identified by McAlister et al. (2001) and Sherman and Beaty (2007) which must be addressed by the course design team, such as technology and its support, broadband availability, learner IT skills, reduction in student engagement, staff resourcing and commitment, staff expertise and course design. Furthermore, one drawback of online learning is that, on occasion, a participant may fall behind schedule, whereas the blended approach reduces this risk by decreasing the isolation of the participant by building in a social element, thus accommodating peer

group support (see Garrison and Kanuka, 2004; Rovai and Jordan, 2004; Morgan and Tam, 1999). In the section to follow, this aspect of the role of peer group support is outlined in further detail.

The Role of Peer Group Support

The group support offered by the blended approach is particularly pertinent in light of previous research which has highlighted the isolation suffered by many geographically dispersed micro/small tourism operators (Braun, 2002). Indeed, Morrison (1998) argued that peer support offers both relief from the isolation often encountered by these owners/managers (particularly home-based ones) and reduces the potential risk of an introverted approach to business management. In response to these concerns, the blended learning approach offers students the opportunity to access resources and actively engage with other students without leaving their businesses.¹³ Furthermore, studies have shown that interaction between multiple participants in a learning environment increases diversity, and the students' diverse experiences contribute to exploration learning¹⁴ and to the development of new knowledge (Fiol and Lyles, 1985; Moorman and Miner, 1998). This is further supported by Ausburn (2004: 329), as in her meta-analysis of the literature she related that:

Among instructional design elements of distance courses online, the research evidence favours interactivity, communication, and 'bonds' or 'connectedness' as important features of course design, with elements such as chat, e-mail, discussion boards, group activities, and learning communities typically drawing positive responses from students.

Moreover, Sheldon (1989), in her study of tourism professionalism, specifically highlighted the role of socialisation through education and training in enhancing levels of professionalism (an overarching goal of the BSc programme).

However, group composition and dynamics represent issues that must be studied and addressed by the course design team. Furthermore, as distance and geographic spread were highlighted for particular attention in the post-pilot interviews, the online component of the programme will be all the more critical as an additional means of addressing or allaying these concerns. A further component in the design team's response to this study's findings is the recognition of the importance of a tailor-made programme induction, as detailed in the section to follow.

The Role of Induction

Previous research has shown that although non-traditional students such as the BSc's targeted cohort may be highly motivated, their transition into higher education can be problematic (Tait and Godfrey, 2001; Barron and D'Annunzio-Green, 2009). The non-traditional student who is entering higher education has several concerns connected with his/her entry:

- Feelings of isolation and lack of identity

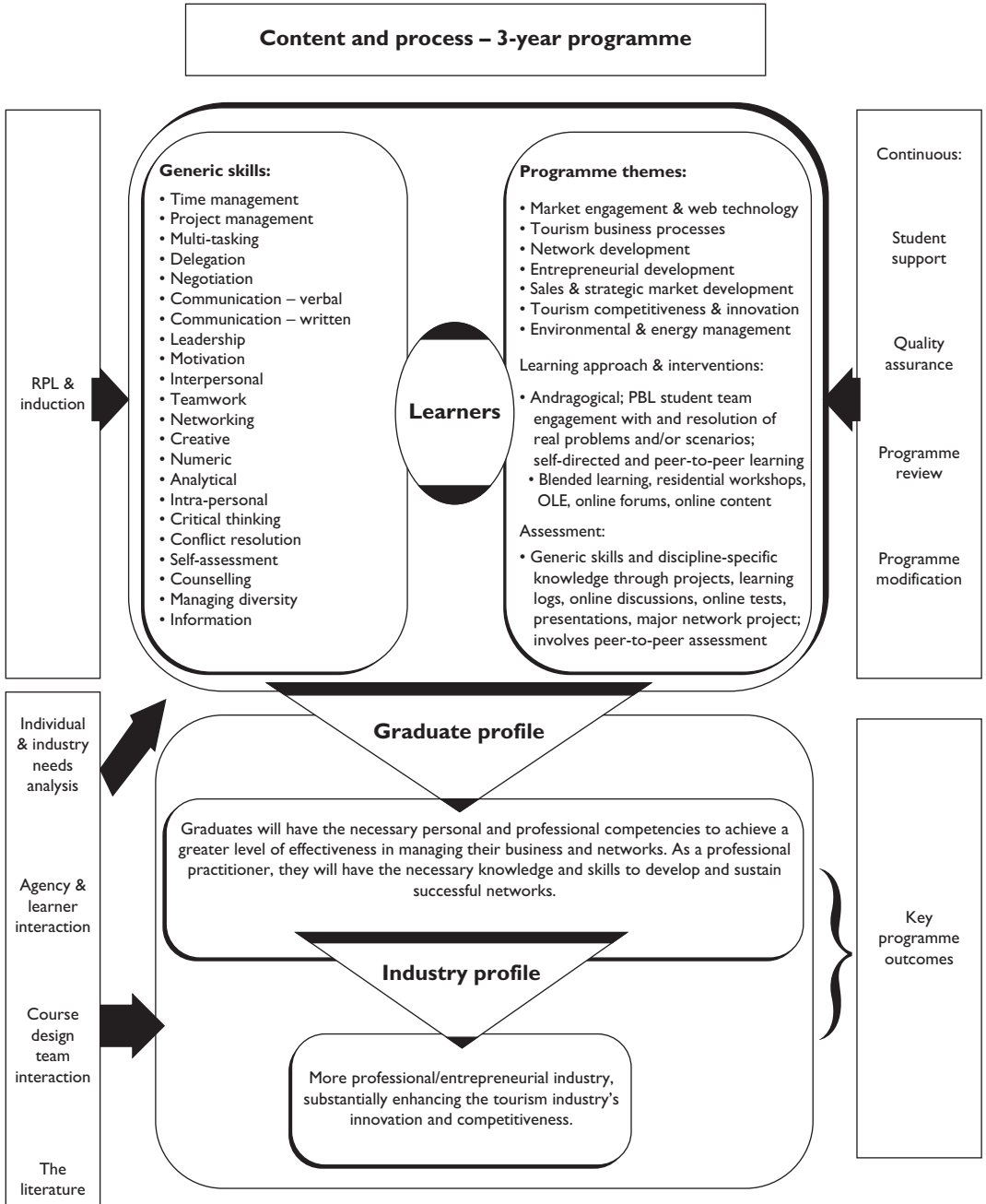
- Lacking in academic self-confidence
- Fear of the level of responsibility he/she must take for his/her own learning
- Lack of knowledge concerning teaching, learning and assessment methods
- Level of work expected from him/her
- Time management
- Work-life balance
- Study skills
- Teamwork skills
- Ability to cope with higher academic level
- Financing his/her study

These aspects were mirrored in the current study's findings, in addition to the authors' own experience with the targeted BSc cohort, which indicated that writing skills and IT skills may also be of concern. Nevertheless, Barron and D'Annunzio-Green (2009) determined that students will work through their difficulties as they expect the first few weeks to be difficult, but learners also expect that support will be forthcoming from academic staff – a major finding of this study was the necessity of early intervention by the educational institute in order to enhance the learners' academic self-confidence. Research has indicated that in order to enhance the quality of the students' learning experience an induction programme which addresses the foregoing concerns is critical. Similar to the literature where induction has been acknowledged as an 'ongoing process throughout the degree programme' (Tait and Godfrey, 2001: 260), the induction programmes for non-traditional students offered in the authors' business school are scheduled for pre-semester delivery as well as delivery, when needed, throughout the first year. This same approach will be utilised for the BSc with further supports added, if and when necessary, through the further two years of the programme. The formal induction will be credited.

The Role of Recognised Prior Learning (RPL)

This study found that the major concern of the targeted cohort appeared to be time to complete a degree; the recognition of prior learning was one means of addressing this concern. Recognition of the participants' prior experience and competence aids in ensuring the programme helps individuals to learn rather than imposing prescribed solutions on them (see Deakins and Freel, 1998; Gomez et al., 2004). Indeed, many higher education providers have recognised that learning 'occurs in many contexts including work, involvement in social and community activities, or learning through life experience' (Sheridan and Linehan, 2009: 1), hence there has been a growing formal recognition of this learning by third-level institutions. In line with European Union policy concerning lifelong learning, the recognition in Ireland has been driven by the Irish government as evident in its RPL guidelines published by the National Qualifications Authority of Ireland in 2006, hence

Figure 1: A Model for Programme Development



the formal recognition of prior learning is relatively new. Because of its recency, the course design team had little knowledge of what RPL entailed; this then represented an area of research for the team and meetings with WIT's registrar's office in order to incorporate RPL into the BSc. The award of credits for RPL enables the School of Business to offer the three-year full-time programme in a part-time mode, thereby easing the learners' study burden and making formal education more accessible: time for study and work-life balance are issues that have been identified previously in this paper as being of major concern for the BSc's targeted cohort.

In Figure 1, not only are RPL and induction recognised as key components, but also the expected programme impact in terms of the professional graduate and industry profile are highlighted. It also illustrates in particular the programme themes, content and expected generic skills resulting from both the PBL approach and the overall blended learning format. Space issues do not allow the authors to discuss in detail the assessment aspect of the programme development; however, it is envisaged that this will encompass the use of a variety of techniques aligned with the expected learning outcomes (including learning logs, projects, online tests and presentations), but also with practical application and relevance for the micro/small tourism operator.

CONCLUSION

The development of continuing education for micro/small tourism enterprise owners/managers represents a particular challenge; the key focus of this paper is the development of the BSc programme to address their third-level educational needs in order to enhance the sector's professionalism. In collaboration with the programme design team, Fáilte Ireland identified several content themes; these were confirmed by practitioners in the round-table discussions (captured in Figure 1 in the generic skills and discipline specific knowledge encompassed in the BSc content). Following on from this interaction and a thorough review of the literature, the design team concluded that PBL offers the optimum balance in terms of meeting the needs of the stakeholders in terms of relevance, practice and theory. Having adopted this approach, the design team developed a pilot study to ensure that this approach was suitable for the targeted cohort; results were overwhelmingly positive. Moreover, this paper has outlined provisions made in the programme development to address issues highlighted by the stakeholders, including the use of a blended learning approach, accredited induction and recognition of prior learning.

One major challenge that now faces the course design team concerns the design of the modules to ensure these aspects can be delivered through the progressive development of skills and knowledge over the course of the three years. Furthermore, the design team is currently working in teams to ensure that programme themes will be delivered through a tightly knit and integrated curriculum. A key element of this integration is in the module development, specifically in the design of PBL triggers which are multi-disciplinary (where possible) in order to replicate the real-life problems faced by the owners/managers.

This paper has presented a model of programme development that has incorporated both the literature and an integration of the findings from the study, and specifically

highlights the centrality of the learner and the criticality of the interaction and collaboration between major stakeholders to ensure that the professionalism of the sector is enhanced. The authors' ongoing longitudinal study seeks to evaluate whether or not the new degree programme enhances the tourism sector's professionalism. Hence, this paper represents a key stage in the development of an evaluation mechanism in this educational initiative. Although the model has been crafted for one particular programme, targeted at a particular sector, it is perceived that it should provide guidelines to other educators who are responsible for the development of higher education for adult learners who are owners and/or managers of micro/small enterprises.

ENDNOTES

- ¹ Space issues do not allow the authors to discuss in detail the precursor to the degree previously developed and operated within Waterford Institute of Technology, namely the Tourism Learning Network (TLN) initiative. The network facilitated tourism owners'/managers' pursuit of a Certificate in Tourism Business Practice and is now in its fourth year of operation with over 210 graduates to date. Feedback from both Fáilte Ireland and these graduates through a wide range of research activities with this cohort revealed a high level of demand for a degree programme customised to their specific needs.
- ² The course design team is comprised of 20 academic staff and the TLN's project manager.
- ³ Discussions involved the following executives from Fáilte Ireland: (1) at national level – professional development advisor, professional development manager, head of professional development, and director of HRM; and (2) at regional level – general manager and professional development advisor.
- ⁴ Knowles (1980) developed a model of adult education entitled andragogy, which highlighted that adult learning is distinct from the traditional pedagogy employed for facilitating learning in children. Pedagogy centralises course content and perceives students as passive learners, whereas andragogy is particularly relevant to the micro/small business context as it focuses on the application of knowledge to real life, in addition to valuing the active engagement to be gained by involving the adult learner in identifying their own development needs as 'they seek to fill the gaps of knowledge in their experience base' (Forrest and Peterson, 2006: 118).
- ⁵ An action learning ethos had proven successful in Fáilte Ireland's tourism learning networks programme (see, for example, Reinl and Kelliher, 2008; or Kelliher et al., 2009).
- ⁶ For example, Tourism Policy Review Group (2003), *New Horizons for Irish Tourism: An Agenda for Action*.
- ⁷ The utilisation of PBL and blended learning in the programme represents key challenges for the course design team going forward. Only two members of the design team have previous PBL experience and this experience is extremely limited: both members used PBL for the first time in the academic year 2009–2010. The BSc is the first programme in the business school to employ blended learning and no academic staff member has previously utilised this approach. A series of training workshops given by experts on PBL and blended learning was delivered over the previous academic year (2009–2010) to the course design team. Furthermore, two of the authors of this article attended a week-long summer school on e-learning in June 2009 at Dublin Institute of Technology. Despite the foregoing, the authors perceive that there exists some trepidation in connection with the delivery of the programme.
- ⁸ As per the National Qualifications Authority of Ireland (2006).
- ⁹ In return for agreeing to partake in the pilot study and the follow-up interview process, participants were promised a formal Certificate of Appreciation from WIT's Head of Graduate Business in recognition of and gratitude for their contribution.
- ¹⁰ With the participants' written agreement, the PBL component of the pilot was recorded from this point onwards (audio and video).
- ¹¹ The 'trigger' for the pilot actually involved a quote from the round-table discussion: 'I tend to wear maybe five different hats in one day; maybe if I could manage my time better and wear just two hats per day', which was also accompanied by a clip-art picture showing a man juggling different types of hats. The trigger is associated with the 'Critical Personal Skills' module which is scheduled to be delivered in the first semester of the BSc.

- ¹² Contact was made with the remaining pilot participant on four separate occasions; each time he indicated he was too busy to be interviewed.
- ¹³ The learner’s time and work–life balance issues mentioned earlier also benefit from the learner’s ability to remain in their workplace.
- ¹⁴ Holmqvist (2004) described exploration learning as an element of experiential learning, incorporating such behaviours as experimentation, trialling, innovation and risk-taking.

**Appendix 1: Stage 2 – Brief Summary of Practitioner Round-Table Discussion
Comments**

Issue/Concern	Comments Made
Time management	‘I tend to wear maybe five different hats in one day, maybe if I could manage my time better and wear just two hats per day.’
Project management	‘It mightn’t even be the task, it might be the operation. You’re straight in at operation ... so you might at different times of the year you will be focusing on different aspects of the business ...’
Negotiation	‘... I need much better negotiation skills, particularly when it comes to trying to get granting and funding ...’ ‘... they [the tourism practitioners in pursuit of funding] feel that they’re worth X amount of money and then we struggle to reach that.’
Finance/accounting	‘I think the cash-flow is kind of the main ...’ ‘... financial planning in general which was obviously the budgeting, pricing, the managing the overall management of cash-flow ...’ ‘For finance, for funding, for grants.’ ‘Knowing your way through; knowing how to get through the massive amount of forms that you have to fill in and fill them in effectively.’ ‘Yeah. That’s actually quite important – to be able to actually manage them, especially if you’re going to the bank or anything like that or a feasibility study or anything like that ...’ ‘... how we’re going to price ourselves over the next year to two/three years, four years.’ ‘Accounting, cash flow and keeping track – which I’m not very good at.’ A comment made in regards to the recession: ‘So people need to know how to start all over again. Like if you go for a loan today, you’re nearly asked your mother’s maiden name – whereas a year ago – “Good man _____ [participant’s name] – pay that back, no problem at all.” That’s all gone out the window.’ ‘... people need to plan a little bit better to know their costs; there’s a lot of hidden costs when you’re in a business that people don’t understand, and don’t know until it comes up and bites them on the backside ... it’s controlling your costs, controlling your sales, controlling your cash-flow ...’ ‘... I mean the babble that comes through from Europe on a weekly basis. It’s still very difficult to find what funding you can actually apply for.’

(Continued)

Appendix 1: (Continued)

Issue/Concern	Comments Made
Human resources	<p>‘... we struggle every year to get someone to be qualified – then because of that they feel that they’re worth X amount of money and then we struggle to reach that.’</p> <p>‘Sort of around employment and that and maybe from that being able to ... with regards to in-house courses and things like that.’</p>
Business planning	<p>‘... development of the business and the direction. I suppose to what direction that we’ll be taking at the next step.’</p> <p>‘... I find planning is the first great point because you have ideas about developing. Say you have property and so on and you’d like to continue on into ... maybe organic ...’</p>
IT/web/social media	<p>‘... and record keeping as in databases and things like that.’</p> <p>‘... how technology could help your business as well. People did refer to Twitter and all that. Personally, I can’t stand the stuff but maybe there are ways and means of using those kind of things to develop your business without employing sales and marketing managers; maybe you can do it yourself using these things.’</p>
Supply chain management	<p>‘I suppose another indication there would be creditors and giving a certain timeframe – some are better than others and their pricing strategy then comes into that ...’</p>
Customer service	<p>‘... students that come up to the course – they need to know and understand the customer. And you need to go and know what they want And don’t be frightened to ask them what they want. There’s too many people who assume what their customer wants and that’s their own personal perceptions. Engage your customers and ask them what they physically want.’</p>
Conflict management	<p>‘I had an experience with staff – having to go and having it resolved – it’s quite difficult.’</p>
Business writing	<p>‘The other thing that I find is writing skills. It sounds a bit weird but writing skills – like you need to be able to put something into one line which takes a paragraph – if you can understand what I mean Like especially if you’re applying for funding. They want this bulk statement and I find it quite difficult to bulk things like that. I’m one of those write the book people. So I think really it’s an education in itself to be able to put down in a short sentence.’</p> <p>‘There is a skill to actually filling out application forms and if you haven’t done it properly then you get put to the end of the pile.’</p> <p>‘... so basically it’s all about the writing. You know I’d prefer to be doing anything – you know, go down and wash up or do anything rather than do that – funding application.’</p>
Verbal communication	<p>‘... dealing with people ... find the level to talk to people ... that’s a skill that has to be learned individually You need to instil in people a joy of engaging other people and finding a level ...’</p>

(Continued)

Appendix 1: (Continued)

Issue/Concern	Comments Made
Stakeholder management	<p>‘... dealing and communicating with the local authorities. It’s very difficult to get through to the local authorities and get them to do something for you ... They don’t seem to want to know you most of the time ...’</p> <p>‘There’s only one way to deal with the local authorities. I think you need to hire someone – the officials to give a tutorial and then they can explain how we deal with them. Nobody seems to know.’</p> <p>‘... deal with getting to know the councillors to put pressure on the officials to do things for you ...’</p>
Marketing knowledge and skills	<p>Comment made in connection to writing a marketing proposition: ‘It’s more or less public relations – it’s also the same problem would relate to having to do press releases. It’s the first line that’s the important one.’</p> <p>‘... also just to put in there with regards to media – if you’re doing radio interviews and those types of things ... they can put a slant on it differently or whatever so just be aware and to deal with it.’</p>
Environmental law/ regulations	<p>‘And legalities. You’ll be just driven demented with the amount of national, European bureaucracy that’s coming down the line that’s in existence already ... You’ll never know every single legal aspect of running your business but you do need to be aware of what’s there in terms of employment law, waste management, energy laws ... it’s never ending, but it’s never going to go away ...’</p>
Change management	<p>‘Huge amount of change in the way things are done in terms of planning for a business, getting planning permission, legal aspects, financial – it’s all changed.’</p> <p>‘... continuous change ... and being aware.’</p>
Leadership	<p>‘What I think if you’re going to be able to create people who are going to go away and improve their businesses and be tourism leaders I think you need to teach them leadership Delegation is huge. There’s too many people as managers cling on to things Don’t be frightened to fail. You need to teach that to students as well.’</p>
Innovation	<p>‘You need to teach them to be innovative ... you need to be creative They need to experiment – don’t be afraid to fail.’</p>
Keeping a positive outlook	<p>‘I think you have to breathe positivity into people – there’s too much negativity around. That comes as much from the people that are teaching the courses as it does the individuals that are sitting there taking notes.’</p> <p>‘Yeah, you have to be positive. I’d be positive anyway and I’d take chances and all that kind of thing but when it comes down to the money and financial and the banks and all this kind of thing and all the red tape. Going through all this – you know you get a little bit discouraged.’</p>
Strategic perspective	<p>‘They need to have strategic views and views for planning.’</p>

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Book Review

The Oxford Handbook of Comparative Institutional Analysis
Edited by Glenn Morgan, John Campbell, Colin Crouch,
Ove Kai Petersen and Richard Whitley
Oxford: Oxford University Press, 2010



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This addition to the burgeoning stable of recent work on institutional effects focuses primarily on national comparisons of institutional features within contexts. In practice, this volume concentrates on a specific strand of this work: the socio-economic approaches most associated with the Society for the Advancement of Socio-Economics (SASE), its journal, the *Socio-Economic Review*, and, indeed, earlier works published within the Oxford University Press stable. Indeed, some of the papers were presented at an earlier SASE conference. This means that highly influential alternative strands of thinking, for example the private property rights centred or rational hierarchical approaches that are dominant in the economics and finance literature, and the more cognitive and legitimacy orientated approaches of writers such as DiMaggio and Powell, are, a few chapters excepted, largely dealt with through omission. This book is divided into four components. The first looks at types of institutional analysis, social action and complementarity, albeit within this somewhat selective framework. The second focuses on specific social institutions and their relationship with economic organisation and performance. The third looks at the interrelationship between institutions, and firm structures and competencies. The final section looks at new directions in comparative institutional analysis, including to relatively neglected geographical areas. It is difficult in the space of a limited review to do full justice to such a rich collection, and the reviewer has chosen to concentrate on the particular chapters that are of particular interest and contemporary relevance, whilst recognising the value of many of the other chapters.

The opening chapter, by Marie-Laure Djelic, compares and contrasts, and seeks to unpick, the theoretical origins of a number of influential strands of institutional thinking. Interestingly, the varieties of capitalism approach of authors such as Hall and Soskice is relatively neglected, perhaps on account of its theoretically lightweight nature. Somewhat

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stranger is the relative neglect of regulationist thinking, especially as the author stresses the need to move beyond a simplistic understanding of continuity and rupture. Gregory Jackson explores the relationship between actors and institutions. He argues that there has been a convergence in thinking towards the view that actors and institutions are co-generative. Actors' interests and identities reflect institutional settings, but, by the same manner, the institutional framework is remoulded through the role of actors and their constellations. Recent work has emphasised the diversity of organisational forms in specific national settings, and the nature of institutional change. In exploring complementarity, Colin Crouch draws a distinction between features that are functionally necessary and the use of specific systemic features by actors to gain additional benefits or advantages. Again, complementarities may become contradictions, driving change.

A most interesting chapter by Linda Weiss highlights the differences between market rhetoric and market practice. Most notably, in many areas, the US state is highly interventionist. More specifically, the techno industry relies heavily on state protection and support. For example, a wide range of areas ranging from micro-electronics to aerospace are heavily subsidised through favourable defence contracts. There is also a heavy dependence on research at least in part underwritten by not-for-profit research institutions and universities. Weiss argues that the US state is hence both liberal and statist. It combines features of *laissez-faire* in terms of the regulation of both financial and labour markets, with state-directed networks in line with national security and associated agendas. Even the United States' apparently good job creation record in the 1990s was buoyed by the penalisation of over two million of the poor (and, hence, their removal from the job market), the military and a bloated military-industrial complex. This highlights the limitations of a crude deployment of a liberal market archetype and the nature of variety within state systems.

Glenn Morgan explores the nature of markets in comparative terms. He argues that the deregulation of markets often requires considerable state intervention to force shifts in behaviour. This has gone hand-in-hand with massive corporate lobbying (e.g. in the US) and/or the traditional 'clubbish' self-regulation, with insiders deciding the roles for specific markets in a highly opaque manner (e.g. in the United Kingdom). Whilst aspects of the latter may have been challenged under Thatcher, it proved highly durable, and was able to alter its focus towards an ever more blatant protection of such interests. In short, reforms were combined with path dependence. More broadly speaking, globalisation means that systemic rules are open to new forms of scrutiny (for example, in terms of their protectionist features, or in terms of a stated commitment to open markets). Finally, there are growing interdependencies across markets, sectors, geographies and time periods: conflicts and crises in one market flow through to others.

A very welcome contribution by Leonard Seabrooke calls for a greater analytical pragmatism in understanding international institutional environments and frameworks. More specifically, he highlights the role of language and ideology, through which attempts to impose international order (e.g. in the reining in of tax havens) may be inverted. Hypocrisy within international financial institutions may create distortions, but also 'keeps the

operation running' (p. 265), in balancing political expediencies, ideologies and relative power imbalances. Richard Deeg looks at institutional change in financial systems. He argues a key feature of financialisation was diversity between national settings. Within coordinated markets, financialisation has been a particularly uneven process, with some of the changes being difficult to interpret, but pointing more to hybridisation than liberalisation.

Michel Goyer looks at the relationship between institutions and corporate governance outcomes. This chapter does provide a useful critique of rational-hierarchical orientated approaches. He notes that there have been fundamental changes in ownership, even if legal traditions remain the same. The view that some institutions can solve agency issues can be construed as narrowly functionalist. Countries are cast in terms of the relative extent to which they deviate from common law/liberal market best practice: this ignores the relatively strong performance of some civil law countries, the role of politics and the extent to which laws are embedded and contingent on wider institutional frameworks. Sociological approaches have a more sophisticated understanding of specific institutional features and the nature of compromises between actors, but have tended to neglect the role and impact of networks. Politics-centred approaches vary from political-ideology-centred approaches (e.g. Mark Roe's work) to the more nuanced Goervich-Shinn approaches, which draw attention to the importance of power and conflict, and the differences between formal posturing and actual beliefs.

Richard Whitley explores the specific effects of institutional features on firm practices. What is particularly interesting is his discussion of home and host country effects on multinationals from a business systems perspective. He argues that within more collaborative economies, firms are bound in long-term obligations with other firms, associations and employees. However, institutional arrangements governing these rarely go beyond national boundaries, allowing for room for divergence abroad. Again, multinational corporations (MNCs) from liberal markets will be bound by loyalty to the parent company and investors, and greater host country systemically obliged commitments to employees and other partners in more coordinated contexts are unlikely to be diffused beyond that and across the organisation. In short, national institutions are likely to make for diversity within the MNC, although, given a stronger emphasis in their country of origin on owner rights, liberal-market-origin MNCs may be under greater pressure to homogenise practices. A potentially interesting chapter by Hall on state failure is marred by a lack of attention to much of the existing literature in this area, making for a crucial lack of nuance and depth. The closing chapter by Wolfgang Streeck highlights both the dynamic nature of institutions and the constitutive role of time. Markets will inevitably undermine social structures, and in doing so will self-destructively introduce dangerously high levels of volatility and unpredictability. Markets both need some solidarity and 'consume' them (p. 680), driving cycles between obligatory order and social order. Where Streeck differs from Polanyi is in his introduction of time: every 'double movement' is different to the one before it, and it is never possible to recapture past compromises.

There is no doubt that this is a very important book, and essential reading for all with an interest in comparative institutional analysis. Whilst its focus is at best partial, this is, in large part, a reflection of the diversity and vitality of the field. Again, although new directions, specifically those focusing on internal diversity and change, are only partially acknowledged, this reflects the rapid evolution of debates.

Book Review

Why Most Things Fail: Evolution, Extinction and Economics
by Paul Ormerod
London: Faber and Faber Ltd, 2005



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Given the pervasive nature of failure currently undermining economies, this book presents itself as a one-stop shop to dissecting the disposition of economic and societal collapse. In reality it is more a high concept book which offers little in the way of practical advice for managers of ailing firms in today's tumultuous climate. However, what the book successfully offers is a thought-provoking, fresh perspective on failure in markets, governments and societies. *Why Most Things Fail* is a fusion of ideas that draws from economics to biology, history to mathematics and psychology to physics. The author is keenly inspired by Hayek, the 1974 co-Nobel Laureate in Economics, whom he cites within the text as saying, 'An economist who is only an economist cannot be a good economist' (p. 226); it is clear from the beginning of the book that this is a mantra Ormerod strongly believes in. The text commences by introducing the reader to the Iron Law of Failure, which highlights the permeating nature of failure; according to Ormerod extinction eventually strikes, in fact, '99.99% of all biological species which have ever existed are now extinct' (p. ix). This statistic becomes increasingly daunting when the author presents a link between the extinction of biological species and the failure of companies. The juxtaposed relationship between biological species and economic organisations is the most intriguing argument presented in the book. The author puts forth his model, that the mathematical relationship which illustrates the link 'between the frequency and size of the extinction of companies ... is virtually identical to that which describes the extinction of biological species in the fossil record' (p. x). While this statement sounds rather outlandish it provides a great backdrop to illustrate the grave differences between the cold, logical agents that underpin most economic theories and the complex, evolving, instinctive firms that are indicative of real life and exemplified within the text. It is also noted that a fundamental difference between biological evolution and the evolution of the firm is that companies are run by individuals

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acting in a strategic manner with the intent of becoming increasingly fit for survival, whereas 'the process of evolution of biological species cannot be planned' (p. xi).

The next section of the book (Chapters 2, 3 and 4) examines issues such as inequality, social segregation and poor social mobility in the context of both the economy and broader society as failure is inherent yet highly undesirable in these areas. Some thought-provoking concepts are raised in this section, such as the 'diamond back', where the minority elite live in the confines of a diamond-shaped enclosure and pass on privileges to their children, while the less fortunate majority live in their own diamond and the two diamonds are connected by a narrow isthmus which a rare few will ever cross, and although education can be and is being used as an instrument to increase the level of social mobility across the classes the rate of social mobility has been consistently falling from the late 1960s up to the present day (p. 41). Social segregation is examined using Manchester's disparate social classes and territories as an example because they remain distinctly separate to such a degree that it is very similar in 2004 to what it was in 1844, despite generations of social reformers working towards social cohesion and integration (p. 60). According to the author, the failure of policy makers to overcome these societal injustices could be explained to a degree by Schelling's geographical segregation model. Schelling's model involves a massive chessboard-style layout with an equal number of two types of agents, which populate across the board in a random, scattered fashion. The game progresses by each agent being allowed to move individually and choosing to move if there is less than a specified percentage of its neighbours of the same type as itself. The end result of this model portrays the desire for agents to be surrounded by their peers and counterparts rather than the unfamiliar and thus goes some way to explaining the undercurrent that tacitly conflicts with the policies of government to overcome these social issues (p. 73).

The core arguments of the book are put forward in Chapters 5 and 6, where a systematic attack on the core models of classical economics is launched with great vigour, clarity and a surprising amount of justification. The author, an academic economist, brands classical economics as over-simplistic. Economic theory expects market actors to behave as rational agents in an effort to obtain equilibrium; however, realistically market decisions are based on complex interactions that evolve and change over time and cannot be reduced to a simple set of rules as portrayed by many textbooks. In fact, it is argued that the formulaic recipes for success found in economics textbooks are in the real world 'a prescription for failure' (p. 16).

The next five chapters of the book (Chapters 7 to 11) appear to be less developed than the earlier ones; they draw on examples to illustrate arguments which at times resemble an attempt to fit a round peg into a square hole and the entire flow of the book becomes more stagnated. This rainbow book of subjects also begins to come full circle by drawing on the work of modern economist Schumpeter, who pioneered the idea of creative destruction and evolutionary economics, and Darwin, the biological evolutionist. To this end, knowledge acquisition, innovative thinking and an ability to adapt to changing environments are all heralded as the best way forward to avoid failure. To governments restraint is

advocated, as most interference in the operations of the market is likely to add to problems due to the complexity of our environment.

The remaining three chapters (Chapters 12 to 14) explore these complexities in more detail and the author concludes that an understanding of these networks and their evolution is key to overcoming extinction. Dense networks and strong connections facilitate knowledge exchange and reduce the curse of dimensionality. Dimensionality contributes to failure due to a vast chasm of disparity between the proprietors of valuable information and the governors of power. It is advocated that power should be channelled down into the hands of communities and people so they can see that failure is pervasive and contribute their knowledge and experiences to overcome it. This notion is similar to Britain's latest public policy move, the 'Big Society', which aims to devolve power away from central government and back into local communities, so perhaps in the future a working example of Ormerod's vision of societal evolution will manifest.

To truly understand success we must first obtain a strong grasp on the concept of failure; this is the author's premise for writing this book as much of the market is transfixed by business 'gurus' who 'eulogize contemporary success' (p. ix). While this book does a fascinating job of exploring economic and social failure through an unusual host of illustrations from the evolution of a sunflower to the temperament of a hawk and right back to the poor foresight of Bill Gates and the misplaced actions of Friedrich Engels, it certainly fails to live up to its title as an explanative text on the failure of 'most things'. This book also does not contain any groundbreaking new theories that will change the landscape of economics; however, what it does exceptionally well is present the reader with familiar theories from a new, thought-provoking perspective. As such, this book would be beneficial for persons wishing to reacquaint themselves with economic literature or individuals looking for a fresh take on familiar theories as the reader is escorted through the main components of economic theory; however, the author's multidisciplinary background takes us on a journey that affords us the ability to visualise the familiar theories through an array of lenses.

Ultimately, Ormerod presents himself as a free-market capitalist whose disdain for the over-simplicity of economic theories also shines through; however, the arguments made while criticising the theories are valid, articulate and persuasive. While many people who have studied economics are aware of its limitations already it is refreshing to see such an impassioned critique of its underpinning theories. These thoughts are already a pervasive theme in the present business literature; however, while the core conclusions of the book are not new, the author's methods of deducing them are certainly intriguing, unique and well worth a read.

