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CHAMPIONS OF INFORMATION SYSTEM INNOVATIONS: THEMATIC ANALYSIS AND FUTURE RESEARCH AGENDA

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Abstract

This paper presents an analytic review of literature on the role of key individuals linked to the success of IS initiatives; namely, project champions. We follow a systematic literature review approach and select papers for inclusion and then exclusion drawn from the two domains of relevance: information systems and innovation studies. Inductive categorisation using human and software-enabled insights identifies seven core themes through which we can conceptualise and understand IS innovation champions: origins, competencies/identities, roles/activities, relationships/influence, resource identification/mobilisation, impact on projects/organisations, and support.

We summarise what is known to date from the literature for each of these themes but – reflecting the rather formative nature of the field – we identify for each theme a set of directions intended to guide future research on IS innovation champions. We conclude with a summary characterisation of these champions from the literature which constructs them in terms of 3Rs: results, relationships and resources. These, in part, are then used to produce a condensed list of key future research priorities. Our ultimate aim is to stimulate greater understanding of, and interest in IS champions among researchers and practitioners, providing the former with a research agenda to take forward.

Keywords: IS Champions, Project Champions, Systematic Literature Review, Research Agenda

1.0 Introduction

The concept of a 'champion' is widely recognized and used; it is also commonplace in the information systems (IS) field. But what is a 'champion'? Broadly speaking, champions are key individuals who carry the flag for specifically-chosen causes and mobilise others to join in (Taylor et al., 2011). Their enthusiastic promotion of a particular matter – such as the adoption of ICT innovations – and persistence in the face of strong opposition have been noted since the earliest description of champions by Donald Schön in 1963. Today, a definition by Roure (1999) is frequently used in the IS literature to describe champions:

"any individual who made a decisive contribution to the innovation by actively and enthusiastically promoting its progress through critical stages

in order to obtain resources and/or active support from top management". (as cited in Kamal, 2010:3)

The champion concept made its way into the IS literature in the 1980s. Since then, research about these key individuals and their role in IS initiatives has appeared sporadically in academic literature. To date, however, very little has been done to consolidate the progress that has been made in understanding champions of IS innovations. Consequently, IS champion research progresses in a fragmented manner.

In reviewing the extant literature, it became clear to us that sources agree on the pivotal role champions play in a variety of endeavours: technological innovation (Howell and Boies, 2004); change management projects (Dorado and Vaz, 2003); enterprise resource planning implementations (Nah et al., 2003); product development (Markham and Aiman-Smith, 2001); implementation of mission-critical information systems (Beath, 1991); e-government integration initiatives (Kamal, 2010); etc. Key individuals such as champions are linked to IS project performance as a critical success factor (e.g. Schmidt et al., 2001; McManus and Wood-Harper, 2007; Cerpa and Verner, 2009; and Standish Group, 2009). But there has been no cross-cutting review of what the literature says about champions in these different but related domains; nor about what future directions research on this topic might take.

Our purpose, therefore is to fill this knowledge gap; reviewing and analysing the literature to date of relevance to information systems champions in order to answer two questions:

RQ 1: What has research so far told us about IS champions?

RQ 2: What might be the priorities for future research on IS champions?

The paper begins with a brief outline of the method we have followed in conducting our literature review. Further details of that method – selection of literature and quality appraisal of sources – then follow. Findings about IS champions – divided into seven thematic areas – come next, followed by conclusions about future research.

2.0 Research Method

A systematic and analytic approach was followed in conducting this review of the literature, motivated by three considerations:

- Criticism of IS scholars for being slow to adopt rigorous methods of literature review (Webster and Watson, 2002; Levy and Ellis, 2006).
- The absence, to our knowledge, of any such review to date of IS champions despite, as noted above, their acknowledged importance.
- The accumulation by 2013/14 of a critical mass of literature of relevance to IS champions, sufficient to be amenable to systematic literature review (SLR).

SLR originated from the medical profession in response to a need for more rigour in the analysis of particular bodies of existing literature (Fink, 1998). Subsequently, a variety of disciplines, including management (Tranfield et al., 2003) and IS (Okoli and Schabram, 2010), have adopted and adapted SLR. Formally, Fink (2005:3) defines SLR as "a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners". In saying this, Fink captures our methodological intentions in conducting the review.

Drawing on this definition, a key characteristic of SLRs is that they need to be done in a *systematic* way. In this analysis, we follow the four-phased strategy of Okoli and Schabram (2010) given its specific relevance to the IS domain. The four phases –

i) Planning; ii) Selection; iii) Extraction; and iv) Execution – are broken into eight steps, as outlined in Table 1.

PLANNING	Step 1: Purpose
	The purpose and intended goals for the review must be clearly and explicitly identified.
	Step 2: Protocol
	Before the review commences, a detailed protocol must be developed to ensure a
	systematic, repeatable and consistent approach is followed. This is a plan that describes
	the procedures used for every step of the review. This is particularly important when
	more than one reviewer is involved (as in this review) to ensure clarity and agreement
	about procedures. The protocol should be documented.
SELECTION	Step 3: Searching for the Literature
	The rationale and procedure followed to search for the literature requires explicit and
	detailed description. The search needs to be repeatable and its comprehensiveness
	justified.
	Step 4: Practical Screening
	Search results are screened for <i>inclusion</i> in the review. The criteria for including sources
	(and by implication excluding others) are derived from the purpose, and need to be
	explicit. This is a high-level assessment aimed at eliminating the obviously irrelevant
	works. The practical reasons for eliminating studies without further examination should
	be reported.
EXTRACTION	Step 5: Quality Appraisal
	Following practical screening, the remaining works are screened for exclusion. This step
	necessitates a more detailed content assessment and the reviewers should be explicit
	about the criteria used. The purpose, aims and objectives of the review will influence the
	measures used during this appraisal.
	Step 6: Data Extraction
	Applicable information will be systematically extracted from the final collection of
	papers. A guide and assessment procedures, established during protocol development,
	will be used to extract raw data for synthesis in the next step.
VOIL	Step 7: Synthesis of Studies
	This is the main analytic phase of the review and involves combining, comparing and
T	contrasting of qualitative and quantitative data collected during the extraction phase.

Table 1. Eight-step approach for conducting the systematic literature review (adapted from Okoli and Schabram 2010:7)

Step 8: Writing the Review

Results of the systematic literature review are reported.

The first step, stating the purpose of the review, was addressed in the introduction. Steps 2-5 focus on the identification, selection and screening of the literature for review, and these form the content of the section that follows. The outputs of the final review steps are covered under "Thematic Analysis and Findings". Recommendations towards a future IS champion research agenda are offered throughout and will be summarised within the concluding part of the paper.

3.0 Identification And Selection Of The Literature

A systematic literature review necessitates explicit clarification and justification of the search procedure when developing the protocol (Step 2). Three aspects were attended to in completing this step: i) Identification of the disciplinary pools from which to source relevant literature; ii) Identification of appropriate search terms; and, iii) Development of the search strategy. Firstly, an initial exploration of IS literature – using the ABI-Inform Global database and covering most mainstream IS journals – did not yield an adequate, critical mass of papers to select from. It failed to identify some frequently cited papers we were aware of including a number, referred to in many of the IS papers, which came from the innovation literature; the disciplinary birthplace of the champion concept. A review of empirical research of relevance to champions of IS innovations would therefore need to encompass both innovation and IS literature: both literatures deal with championing of technological artefacts and innovations.

Secondly, as a pilot procedure, a search for Schön's (1963) seminal article (whose "... discussion of champions serves as the starting point for most writers concerned with championship" Howell and Higgins (1990b:250)) was done – Google Scholar (GS) reported 586 cited references. The results were limited to those containing 'champion' or 'champions' in the title – this was found to be effective in identifying articles explicitly focussing on champions as unit of analysis. This pilot procedure yielded 59 articles originating from a variety of disciplines including IS and innovation. From this limited set of works, titles and abstracts were examined to inform the reviewers of commonly used terminology, thereby forming a basis to identify potential search terms from.

The final part – devising the search strategy – was implemented using Google Scholar because:

- It is freely-accessible and thus allows anyone to reproduce the search.
- It provides readily-accessible citation information: an important aspect at the start of SLR.
- It is broad and non-disciplinary where other tools can exclude literature in certain disciplines or sources.

The strategy used earlier – to require 'champion's' to be included in the title – was incorporated, thereby targeting articles that directly focus on champions as the unit of analysis. The remainder of our search terms mainly dealt with the context or object of championing (project, technology, technological, innovation, information system, IT), with only two additional terms (role, non champion) found to be good qualifiers of studies focussing on champions as unit of analysis. Alongside 'champion/s', one or more of these terms were required to appear in the title (GS's advanced search only provides two options for delimiting searches: anywhere in the article, or restricted to only the title). Our search terms and strategy are summarised in Table 2.

Search string: allintitle: champion OR champions (project OR technology OR technological OR innovation OR "Information System" OR IT OR role OR "non champions")

Time period: 1990-2013

Exclude: i) patents, ii) citations and iii) non-English results

Latest Check Date: 27 January 2014

Table 2. **Summary of Google Scholar search strategy**

Further refinements were made in order to isolate the most relevant sources: i) The date range was limited from 1990 to 2013 – literature on IS champions first appeared in the 1980s, but it was only from the 1990s onwards that research into the championing of ICT-based systems really found a place in both the innovation and IS literature (Mullins et al 2008); and ii) patents, citations and non-English results were excluded. The search yielded 189 results, thereby completing Step 3.

Next, all 189 sources were screened for inclusion (Step 4). Sources were included on the basis of being: i) focussed on individual champions as the unit of analysis; ii) empirical research reports with primary data explicitly collected and used for the purpose of the study, to ensure these were original additions to the domain; iii) situated within the IS or innovation literature with specific focus on championing of IS or technological innovations; iv) peer-reviewed sources as a method of controlling for quality; and v) electronically-available sources: required for computer-based content analysis. Using this criterion, 23 sources were selected for inclusion, with 166

rejected. All the rejected sources were carefully documented and independently verified by both reviewers. The following rejections were made:

- 103 originated from non-relevant disciplines, most notably from: medical and health sciences, environmental science, marketing, engineering, education, and sport sciences;
- 26 sources did not focus on champions as the unit of analysis, or focussed on organisations, projects or technologies as champions, not individuals;
- 14 sources were books, unavailable in electronic format;
- 14 sources were not accessible;
- 8 sources were not articles but CVs, slides or non-academic reports;
- 1 reference was to different versions of the same document with only the latest then included (Sipior, 2005).

The remaining 23 sources were then screened for *exclusion* (Step 5) through quality appraisal which undertook a more in-depth assessment of content on the basis of the criteria shown above. A procedure was followed where the two reviewers independently assessed the sources using the inclusion criteria set out above. Findings were afterwards cross-checked and discussed until full agreement was reached. As a result, an additional five sources were excluded: four were removed on the basis of not being empirical papers (Howell, 2005; Coakes and Smith, 2007; Sipior, 2005; Renken and Heeks, 2013) and one was dismissed because the particular focus was on the championing of commercialisation of intellectual capital, not a technology-related innovation (Lichtenthaler and Ernst, 2009). Thus, at the point of entry to the data extraction step, a final collection of 18 sources – presented chronologically in Figure 1 – was used as the basis for this review of the body of knowledge about champions of IS innovations.

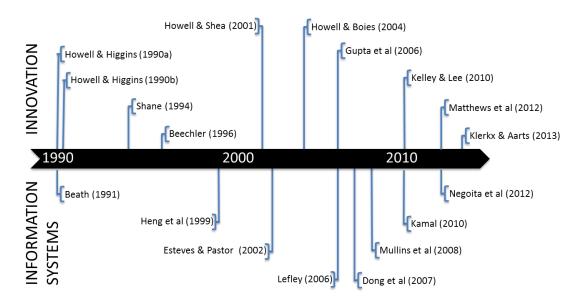


Figure 1. Champion literature timeline

4.0 Thematic Analysis And Findings

A thematic analysis and synthesis of the literature was aided by coding and extracting relevant data from the papers. We will return to give more detail about these extraction procedures momentarily, but the identification and development of thematic areas will first be attended to. For this purpose, we followed an inductive process which began with the reviewers reading the papers in order to identify broad thematic areas useful for categorising the empirical focus of papers. Care was taken to ensure the categories were independent of any particular definition or conceptualisation of the notion of "IS champion". Themes were formed on the basis of an assessment of three components within each of the sources:

- explicitly-stated research questions or hypotheses,
- the focus of the empirical work, and
- the knowledge contribution embodied by the stated findings.

Coding of these relevant sections was also undertaken using NVivo 9 which helped manage the iterative process of identifying new thematic categories and splitting or combining existing ones. The process was terminated when the independent reviewers reached consensus on a final set of seven thematic areas.

We recognised that such an inductive approach is not a familiar practice in IS systematic literature reviews but selected it for three reasons:

- The aim of the review, particularly the first research question, was to explore the possibility of grouping the research on champions of IS innovations into sensible thematic areas such a venture is inductive by its very nature.
- No suitable taxonomy, useful for the purpose of categorising the empirical work relating to champions, could readily be located – the best way to proceed was to follow a systematic, inductive approach using our set of papers.
- Inductive approaches within SLRs have been acknowledged (e.g. Hammersley, 2002: 4) and practised (e.g. Jones, 2004) in other disciplines.

The seven thematic areas – research focal points – that emerged were: i) *Champion Origin*; ii) their *Competencies and Identities*; iii) their *Roles and Activities*; iv) their *Relationships and Influence*; v) *Resource Identification and Mobilisation* by champions; vi) their *Impact on Projects and / or Organisations*; and vii) *Champion Support* – the environmental factors conducive for championing.

We now return to a description of the data extraction procedures (Step 6). Following agreement of the themes, the reviewers undertook a final iteration by coding which themes were addressed in each of the 18 papers. This was undertaken as part of a larger data extraction exercise that also included issues such as research methodology and theorisation; issues which will be reported in a separate paper. In all, a scoring form of thirty variables and associated measures was developed. It was then piloted on analysis of five papers, coded independently by the two reviewers and yielding a 91% initial agreement. Discussion on differences led to some modification of variable definitions, measures and procedures including a further clarification of some of the thematic categories. One reviewer then proceeded to code the remaining 13 papers with the second reviewer moderating the final data set. Only one thematic analysisrelated item required further deliberation after moderation. Our experiences resonate well with Okoli and Schabram (2010) who pointed to the iterative nature of testing and refining measures and procedures. Within the confines of our own resources and the subjectivity of any human-centred categorisation activity, the criteria and procedures for the content analysis are argued to be reliable and repeatable.

The summary categorisation of papers according to the thematic focus of their research is provided in Figure 2.

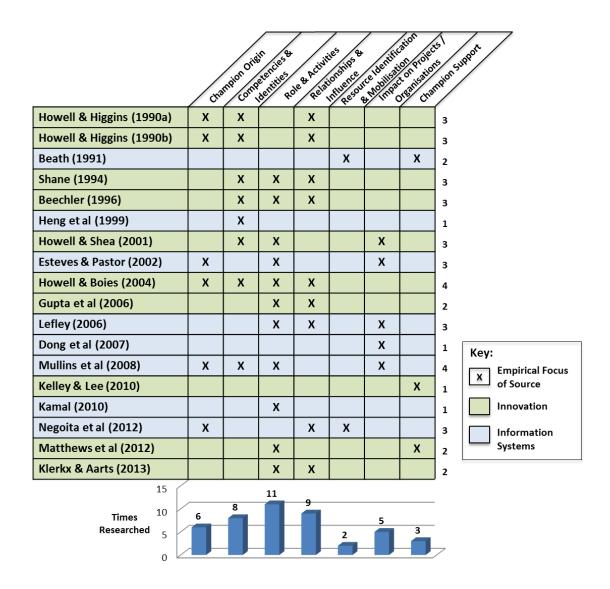


Figure 2. Classification of sources according to research focus theme

Figure 2 reveals the varying levels of research attention paid to different aspects of championing in the reviewed literature. On the one hand, studies investigating champions' competencies and identities, relationships and influence tactics, and roles and activities are relatively common in this collection of sources. On the other hand, only five studies explicitly investigated the impact of champions, and in only one case was this the core focus of the paper. Yet it is a rarely-disputed claim that champions have a positive impact; potential negative impact is an issue that would be of strategic interest to organisations. Only three studies provide insights into the support needs of

champions; another important consideration for practitioners. While much is said – speculatively – in the literature about champions and resources, only two of the reviewed studies explicitly researched the resource identification and mobilisation theme.

One can also read across Figure 2 to note that only four of the 18 studies focussed on a single theme. This might not be unexpected – research on champions in the IS and innovation fields is still at a relatively formative stage (albeit with some small sense of acceleration towards the end of the period under review). As such it may be somewhat broader brush than in a more mature research field, where increasing specialisation of thematic focus might be anticipated.

In the remainder of this section, a synopsis of the conceptualisation of champions of IS innovations, as it emerges from the themes covered by this selection of sources, will be presented (Step 7). Specific future research directions will be identified for each theme; a detailed set of priorities that will be aggregated in the Conclusions.

4.1 Champion Origin

This theme focuses on the genesis of champions – where do they come from and how do they originate? Few studies explicitly addressed this and because of this scarcity and their heterogeneity of sub-topic, this theme still represents an important gap in conceptualisation of champions that future work needs to address.

The main concepts about champion origin were contributed by Howell and Higgins (1990a; 1990b). They proposed that some individuals are predisposed to champion behaviour on the basis of their personality traits, and could be identified using psychological testing. Both they and Beath (1991) accept that – while champions may emerge spontaneously – context shapes this process. This may be read in a passive mode: for example with weak organisational and technological constraints encouraging the emergence of champions. But it is also seen to have interventionist implications: Howell and Higgins propose development of champions through transformational leadership training; Beath recommends use of 'greenhouse' or 'incubator' services in the organisation which can nurture potential IT innovation champions and provide them with resources and freedom from constraints.

Others see the origin of champions less in individuals and more within particular organisational roles. Esteves and Pastor (2002), for example, see champions deriving internally and mainly from senior-level project sponsor roles. Thus, unlike the personality-based argument, champions are seen to emerge from positions of authority. Others construe variants of this – Dong et al (2007) seeing champions emerging from a wider variety of managerial roles, and Kamal (2010) also seeing IT champions as being appointed rather than originating from a more organic route, but in this case arguing those appointments as best made on the basis of a mix of domain knowledge and expertise as well as personality-based factors.

From these different views, two axes can be derived:

- Born vs. made: some authors argue that becoming a champion is the result of an innate predisposition. While context and external interventions may impact the likelihood that this predisposition is expressed in champion behaviour, it does not alter that predisposition. The key task for organisations, therefore, is identification of those who have a champion's profile. Others argue that (almost) anyone can become a champion through appropriate development and training: these, rather than profiling exercises, thus become the focus of organisational intervention.
- Emergent vs. appointed: some authors see champions as naturally emerging within any project or situation of innovation. These individuals take an interest in a particular cause and then begin to champion it. Organisations may affect this via general contextual interventions, but they would not get directly involved at the level of the individual. Others argue that one needs to plan the presence of champions: individuals must be identified sometimes explicitly assigned the role of champion before championing can begin.

Future Research Directions:

- i. Studies that explicitly focus on the origins of champions are scarce, so simply conducting research to understand from where and how they emerge, would be valuable. We have induced the two axes above but the IS/innovation literature to date has not really explicitly engaged with these, so it would be helpful to set these axes as focal research questions. These would subject to empirical testing the questions of whether IS champions are born or made, emergent or appointed, and would draw practical recommendations for organisations from the results.
- ii. The specific practicalities also need investigation in future: If champions are to be identified, what profiling tools are most effective? If training is to be given in order to

- cultivate champions, what should be its content? If champions are to be appointed, to what formal role should that appointment be?
- iii. There are further axes as yet unexplored; such as an internal vs. external axis that would ask where champions originate in relation to organisational boundaries: for example, can external actors be brought in to act as champions?

4.2 Champions' Competencies and Identities

This theme considers the characteristics of champions; both their human capital or competencies – skills, attitudes, knowledge; but also their identities – who do they see themselves, and who do others see them, as being?

Converging ideas about champion characteristics that can be identified are: they are innovative and creative individuals (Howell and Higgins, 1990a; Heng et al., 1999; Mullins et al., 2008); they are often transformational leaders (Howell and Higgins, 1990a; Dong et al., 2007); they are enthusiastic individuals with dynamic personalities (Howell and Higgins, 1990a; Kamal, 2010); they are discerning and perceive their role in the organisation more broadly and strategically than non-champions, gaining an in-depth understanding of organisational context (Mullins et al., 2008; Howell and Boies, 2004); they have deviant preferences and display dissatisfaction with the status quo (Mullins et al., 2008; Shane, 1994; Howell and Higgins, 1990b); they have extensive and diverse career experiences (Howell and Higgins, 1990b; Kamal, 2010; Gupta et al., 2006).

A few authors add more depth to this with a contingent perspective, seeing the characteristics of champions varying – or needing to vary – dependent on the context in which they operate (Kamal, 2010; Beechler, 1996). For example, there might be variations depending on which end of the emergent vs. appointed axis prevails. Where champions are not formally appointed and thus their efficacy is not based on delegated authority, noted characteristics include: a propensity to take risks (Howell and Higgins, 1990a; Shane, 1994), an optimistic outlook about the future (Howell and Higgins, 1990a), and a preference for using people as sources of information in environmental scanning (Howell and Boies, 2004; Howell and Shea, 2001).

Conversely, in situations where champions are formally appointed, they are often senior managers in positions of authority (Heng et al., 1999; Dong et al., 2007); they may accept rather than opposing formal organisational structures and procedures

(though still prefer to be pragmatic by simplifying planning activities) (Heng et al., 1999); and there is an emphasis on their possession of expert domain knowledge in relation to the technology or system which they promote (Heng et al., 1999; Kamal, 2010). However, these are mainly our associations of characteristics and the emergent vs. appointed axis, rather than those of the authors. Hence, while the notion of contingency of characteristics has support, the specific nature of that contingency has not been fleshed out.

The practical value of research on the competencies and identities of champions is that it assists in recognising, developing and supporting them. In so doing the success of IS projects could potentially be improved.

Future Research Directions:

- iv. In part, the future research questions here follow on from those on champion origins: looking for ways to unify the disparate characterisations given in the different papers, and understanding the practical implications for identifying and developing champions (in turn, overlapping with issues of champion support).
- v. The characterisation to date has tended to cluster around a relatively narrow range of characteristics, leaving some much bigger questions also related to champion origins unanswered: for instance, are champions more often men or women, young or old? And do these major differences betoken different types of champion profile?
- vi. How are IS champions different from other types of champion? For example, do they require technical competency and, if so, of what type? Only one study Heng et al (1999) touches on this, showing ten IT champions to be a mix of technically and non-technically qualified. But this tells us relatively little since qualification and expertise are two different things: champions can be self-taught technology enthusiasts.
- vii. As noted, the contingency question remains open: rather than seeking a one-size-fits-all profile, it seems likely champion profiles must to some extent match their situation. But which components of context relate to which champion competencies?

4.3 Roles and Activities

This thematic area focuses on *what* champions do within organisations or projects and *how* they do it. As noted above, an important component of *what* champions do is the identification and mobilisation of resources, and building relationships with, and influencing others: for example Gupta et al (2006) and Lefley (2006) mainly discuss these issues in their coverage of champion roles. Both these aspects were promoted to stand-alone thematic areas during our initial analysis and will be discussed separately. In this sub-section we aim to synthesise the broader spectrum of work on champion roles and activities within the organisational context.

Some of the findings here can be related to particular stages of projects. Beechler (1996), Howell and Boies (2004) and Lefley (2006) discuss champion activities in the early stages of projects. The former two papers find that champions are no better than non-champions at generating ideas but that they will identify viable ideas – their own or others – for which they then become enthusiastic supporters, seeing them through to concrete innovations. This involves activity throughout the project lifecycle, including active participation in implementation (Gupta et al, 2006; Kamal, 2010).

In supporting the process of IS innovation, champions have tended to play a linking role between the innovation and the wider organisational context. In one sense, they are a lens, for example understanding innovations more strategically, in light of those innovations' contribution to key organisational outcomes and values (Howell and Boies, 2004; Matthews et al, 2012). As discussed more below, they are a channel that gathers external resources and support for the innovation (Shane, 1994; Kamal, 2010). But they are also a buffer, providing autonomy for the innovation and those working on it from organisational, hierarchical systems and procedures (for example by imposing only loose monitoring systems), thus creating a space within which those others can be productive and find innovative and creative solutions to problems (Shane, 1994; Beechler, 1996). They also work with that team – sometimes formally leading but more often finding ways to build consensus and a sense of unity (Shane, 1994; Matthews et al, 2012). And their view of the restrictions imposed by the wider organisation may lead them to encourage and facilitate broader change (*ibid.*).

We can also extract a slightly different perspective from the literature, relating to the almost universal claim that champions are important. But what is it they do which is particularly important? Three assessments are offered:

- Esteves and Pastor (2002) argue that champions' importance comes from their seniority and position in the organisation, which allows them to secure required resources, engage with top managers, and facilitate the organisational change necessary when new technologies are adopted internally.
- Dong et al (2007) posit that champions are important because they cast compelling visions – transcending individual interests – that cultivate favourable beliefs about the innovation among potential users.

• Mullins et al (2008) argue the importance of champions comes from their ability to advance the adoption of innovations within organisations.

Note that importance (the criticality of contribution) is not the same as impact (the consequences of contribution), which is discussed below.

Overall, we might conclude that the role and activities of champions centre on vision – an orientation to results, including organisationally-strategic results; on harnessing resources and support; on creating an environment that is conducive for advance towards the overall goal; and on seeing innovations through to adoption. Although they must have the ability to assess the technical ideas that arise and support the technical staff working on the IS innovation, there are otherwise few signs here of a need to apply technical, domain-based expert knowledge and skills (one of the issues raised in the previous sub-section).

Future Research Directions:

- viii. The focus of IS innovation champion studies has typically been the individual, but we can see that what matters is the role of the individual within an organisational context, so more research needs to undertake organisational-level analysis of champions (a research gap argued by Mullins et al. (2008)).
 - ix. This focus on the individual has also tended to obscure the fact that there may be multiple champions operating in the same IS innovation arena. Two studies (Gupta et al., 2006; Klerkx and Aarts, 2013) have broached this issue and identified different roles played by different champions. But further work is needed, perhaps in the form of a taxonomy of champions of IS innovations, and in understanding how teams of champions work together (or fail to do so!).
 - x. The theme of contingency needs to be expanded in future work: researching how the role of an IS innovation champion may differ at different stages of the innovation lifecycle; researching the different roles required for different scales of IS innovation, from one introduced into a single organisational sub-section, up to those based on interorganisational and (inter-)national roll-out; and researching the role of champions in formalised IS project structures vs. situations that have not been formalised.
- xi. Related to this last point, we need to understand more about the formal vs. informal roles of champions; perhaps particularly the ways in which they sometimes need to ignore or subvert formal procedures.
- xii. Research into roles has tended to remain bounded to a typical project cycle. But it will be valuable to step outside this and ask, for example, what champions do as and when they exit from an IS project; and what they do in the gaps between championing. Taking an even greater longitudinal approach, do they tend to be one-time or multiple champions, and do they tend to be parallel or serial champions?

4.4 Relationships and Influence

A primary and distinguishing feature of champions is their ability to enrol others into their vision-based endeavours. The importance of relationships and influence tactics is evidenced by the volume and frequency of research attention in the selected sources; nine studies explicitly attended to some aspect of this theme (see Figure 2).

From the literature, we find that champions draw on their personal networks to advance the IS innovation to which they commit (Howell and Shea, 2001; Howell and Boies, 2004; Gupta et al., 2006); and while they may draw on different parts of this network at different points in a project, they actively work all the time to expand that network (*ibid.*). For some, the focus is on network- and relationship-building inside the organisation, while others concentrate on external relationships (*ibid.*).

Within these relationships, champions use influencing tactics at high frequency, and they have a large repertoire of such tactics (Howell and Higgins, 1990a; Howell and Higgins, 1990b). There is a preference for informal methods of persuasion (Howell and Boies, 2004; Shane, 1994) such as the articulation of a compelling vision and expressions of confidence in the ability of others to participate in the innovation (Howell and Higgins, 1990a). That vision may seek to link problems – dissatisfaction with the status quo – and solutions: the strategic benefits of the new technology (Lefley 2006; Mullins et al., 2008). An alternative perspective on this is to say that champions tend not to use transactional-style influencing tactics with personal rewards (an exchange between champion and other where the former offers something in exchange for the latter to do a certain task), but prefer transformational-style tactics (a champion motivating and inspiring someone else resulting in a response where the goal of the collective is prioritised over the individual's personal objectives) through building coalitions, reasoning, drawing on higher authority and assertiveness (Shane, 1994; Howell and Higgins, 1990b). Their ability to successfully practice these tactics is shaped by factors including the perceived nature of the champion (organisational position, experience, trustworthiness) and the type of technology under consideration (Negoita et al., 2012).

Future Research Directions:

- xiii. As ever, we raise the issue of contingency: the need for research into the different types of relationships and different tactics of influence used in different situations; by different types of champions; and with different project stakeholders (executives, managers, technical staff, etc).
- xiv. We have little sense of prioritisation as yet: which relationships matter most, and which influencing tactics work best?

xv. Following the discussion about multiple champions, we can see that research to date has been about interactions between champions and "others". So a gap remains in researching networks of champions, to understand how they collaborate or otherwise interact with each other.

4.5 Resource Identification and Mobilisation

As already noted, from our initial definition, champions have been associated with identification and procurement of resources for their IS innovations. Only two of the reviewed studies looked at this as an *a priori* topic (Beath, 1991; Negoita et al., 2012). From these two studies, a notable differentiation can be draw between material and non-material resources. Beath focuses mainly on the former by describing information and technical resources as critical for champions. A third resource forwarded by Beath – political support – is non-material and is added to by Negoita et al. who argue for the importance of social capital to champions' initiatives in identifying and unlocking various kinds of resources for the IS innovation to succeed.

Some of the other papers provide some passing insights on champions' resource orientation. This may be just to reinforce the general message that champions are seen to bear responsibility for obtaining resources for projects (Esteves and Pastor, 2002; Heng et al, 1999). But there are a few details: Shane (1994), similar to Negoita et al., (2012), describes how project champions utilise their social capital, influence and relationships to acquire resources. And the sense of improvisation and informality seen in other themes is also present here: for example, Howell and Boies (2004) use the analogy of scavengers to explain how champions covertly identify and mobilise resources.

The other papers also reinforce the critical nature of non-material resources, variously talking about champions securing the "support" (Shane, 1990), "motivation" (Howell and Higgins, 1990b) and "enthusiasm" (Howell and Boies, 2004) of other stakeholders, such as both more senior and more junior staff. This and earlier findings thus suggesting a need to expand Roure's definition beyond just resource-seeking from top management.

Future Research Directions:

xvi. The limited explicit research attention to this aspect of championing is offered as both a gap in the literature and a necessary area for future research.

xvii. One approach would be to combine a focus on resource identification and mobilisation focus with another theme area; most likely relationships and influence: What relationships and what influencing tactics do champions use in obtaining resources? This can also be investigated together with champion impact; for example to ask: How does a champion's ability to mobilise resources impact the outcome of an IS project?

4.6 Impact on Projects and / or Organisations

Researching the impact of champions, let alone any specific aspect of champions, on IS innovations is difficult because of the problem of attribution – within the myriad of factors at play, how to isolate just those related to champions; and the problem that at least some of the measures involved would be qualitative and potentially subjective. These challenges may explain why relatively few – only five – of the reviewed papers even partly covered this theme. This may also relate to definitions of champions, with their inherent assumption that the impact of champions is to drive their IS innovation forward to successful implementation.

Lefley (2006) provides a very helpful corrective to this, showing how a champion impacts projects by driving them forwards in the early stages, overcoming objections by lowering perceptions of risk and raising perceptions of strategic benefits. But this has a negative overall impact, if in reality the project was not beneficial for the organisation. The analogy we might use is of champion as turbocharger: they will make the IS innovation reach its destination more quickly but it may not necessarily be driving in the right direction.

More generally, though, papers present evidence of positive impact with Mullins et al (2008) finding Internet adoption and use greater where champions are involved. Other evidence is a little eclectic. Dong et al (2007) is restricted to noting a positive impact of champions on user technological beliefs; something which is at some distance removed from impacts such as project or organisational success. And Esteves and Pastor (2002) address only the "mirror-image": offering circumstantial evidence that departure of a project champion can have a negative impact on ERP projects. Only Howell and Shea (2001) address this theme broadly and directly via a longitudinal study which found that championing behaviour positively predicted the outcomes of 47 product innovation projects.

Future Research Directions:

- xviii. With only one (non-IS-focused) paper directly addressing this theme, there is a need for more research; particularly given that this is the "bottom line" of champions. Our descriptive interest may arise from their mere existence, but our prescriptive interest arises from the promise that champions have a positive impact and improve success rates.
 - xix. "Improve success rates of what?" is another question. We can see that research is required based on a two-level analysis; looking at champions' impact on IS projects but also on the wider organisation. (And of course, one could narrow down further to look at the impact on champions themselves of their activities; and the impact on those key individuals around them.)
 - xx. Beyond the direct connection to impact, we also need to know what differential impact on IS innovations different elements from the themes have: such as different types of champion, and different activities of champions.
 - xxi. The negative impacts of champions are under-researched. Developing the turbocharger analogy, (how) may champions end up driving IS innovations in the wrong direction?

4.7 Champion Support

We have seen that champions are influenced by the context in which they operate (Beechler, 1996; Kamal, 2010), so what does this mean for conscious attempts to support them? Some of the literature is non-specific; for example, merely advocating general changes to the organisational context in order to encourage champions to emerge (Shane, 1994). Other recommendations are narrowly-specific: e.g. that transformational leadership training will help encourage emergence of champions (Dong et al, 2007; Howell and Higgins, 1990b). Beyond emergence, champions can benefit from support while enacting their main role. Beath (1991) found three areas in which IT champions need and value support: i) information that can be used as persuasive evidence of their vision for using IT; ii) flexibility in the implementation process; and iii) political support for their vision.

Two final papers provide some contingent insight, though mixing the prescriptive and the descriptive. Support may vary by type of project: those closely related to current organisational operations require empowerment and sponsorship; those that strategically diverge from that direction require more directive control from senior staff (Kelley and Lee, 2010). Support may also vary by size of organisation: in larger organisations, champions are often some way down the hierarchy and do not receive direct support from top managers; in smaller organisations, that direct connection is more easily made (Matthews et al, 2012).

Future Research Directions:

- xxii. Contributions in this section draw largely from studies at the emergent end of the continuum. So more work is needed on the particular support requirements of formally-appointed IS champions.
- xxiii. While acknowledging their general relevance, the work has not investigated the role of environmental factors organisational culture, organisational structure, systems of governance, systems of compensation on champions.
- xxiv. Research needs to push beyond mere presence/absence of support components, to understand the specific effect these have on the actions of champions and, in turn, on the performance of IS innovations.

5.0 Conclusions

Champions are fascinating and important cogs in the IS machinery. With this review we intend to lift the lid on what little is known about these key individuals. This is still a challenge: only eight IS papers addressing this topic met the review criteria, and they were supplemented by ten more from the innovation literature. We thus acknowledge limitations because of this small size in an overall sense, and also in what it has prevented. We were not able to rigorously compare the IS and the innovation literatures (though the analysis we undertook on this did not suggest any major differences). We were not able to provide a clear sense of changes in ideas over time. And we have restricted ourselves here to discussion of themes, leaving our analysis of philosophies, theories, methodologies and methods to another time.

Because of the relative immaturity of research in this field, there is limited depth to the findings; findings which must often be seen as foundations for more critical and analytical insights in future. Even within this small collection, though, there is some sense of continuity and connection – later papers in the review cite earlier ones and use their evidence; Beechler directly revisits and expands the work of Shane. Howell represents a key node and foundation, authoring nearly half of the innovation papers. And all the themes had multiple paper contributions.

Beyond those themes, and at an even-more generalised level, three descriptive constructs cut across the literature and help us refine our sense of who champions are and what they do:

- a) Champions are concerned with *Results* they are not distracted by operational issues and short-term obstacles, but have a strategic vision about successful project outcomes and even beyond.
- b) Champions are concerned with *Relationships* actively engaging with various stakeholders with the purpose of promoting ideas, rallying support and building consensus.
- c) Champions are concerned with *Resources* actively identifying and mobilising the tangible and intangible resources needed to advance the project.

With this broad conceptualisation of IS champions around results, relationships and resources and the seven thematic areas, the scaffolding is in place for advancing research in this area.

Where can champion research most fruitfully direct its attention? One might be tempted to answer "anywhere and everywhere" – above we outlined 24 different future research directions, and could have included more. This number arises because of the formative nature of the field. Despite the threads of continuity and the overall focus on IS and innovation champions, there is little critical mass at a thematic level and even less at a sub-topic level. The literature so far is heterogeneous in its focus and disparate in its conclusions, with many sub-topics we have summarised relying on a single source; at best two or very occasionally three.

Nonetheless, in an attempt to give a clearer sense of future research direction – and guided by the need to directly impact the success of IS initiatives in practice – we recommend prioritisation of the following five issues:

- *Identification and development of champions*. While opinions and research about the origin of champions are on-going, it is imperative that effective champions are actually developed. How can potentially-successful IS champions be identified? How can champions be cultivated and developed?
- *Champions and results*. What exactly are the visions that IS champions hold, and to what extent do they align with the strategic interests of organisations? How important are champions to the bottom-line results of the organisations for whom they work?

- *Champions and relationships*. Which are the most important relationships for IS champions? How do they go about building and maintaining those relationships?
- Champions and resources. Given resource acquisition is central to the work of champions: How do IS champions identify and mobilise resources? What are the implications of the resource-orientation of champions for IS projects and organisations?
- *Contingency*. How do answers to all the above questions vary: by type of technology, by type of organisation, by type of organisational environment, etc?

To conclude, let us revisit Donald Schön's (1963:84) key quote:

"Where radical innovation is concerned, the emergence of a champion is required ... the new idea either finds a champion or dies"

Today we might rework his words:

"Where major IS innovation is concerned, the presence of an IS champion is required ... the new IS innovation either finds a champion or dies"

Above all, this is why research into champions of IS innovations should advance.

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