The Social Dynamics of Generating and Leveraging Intellectual Capital for Innovation

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Abstract: This paper explores the factors influencing an enterprise’s ability to generate and deploy intellectual capital in support of its strategic intent to innovate. Drawing on two research projects, we focus upon the leadership practices that enable an enterprise to innovatively leverage the intellectual capital that is potentially available to it. One project, using a phenomenological methodology, explores, at a high level, the social dynamics within twenty-five medium-sized enterprises noted for their innovative capabilities, in Sydney, Australia. The other project explores in finer detail, through an action research methodology, the transformation of stakeholder relationships within another medium-sized Sydney enterprise that has become highly innovative over the past five years. Our findings show that the most important forms of intangible capital for innovation are relationship-based and are leveraged through stakeholder collaboration.

Keywords: Intellectual capital; intangible capital resources; collaboration; innovation; leadership practices

1. Introduction

The importance of intellectual capital (IC) in a knowledge economy has been recognized for some time but the nature of this concept continues to be debated. The key issues in this debate have tended to revolve around the intangible dimension of IC; in particular, how to define, measure and value these aspects of IC (Vergauwen et al, 2007; Lev, 2004; Ulrich & Smallwood, 2004; Lev & Zambon, 2003). This debate, however, is dominated by positivist researchers whose paradigmatic assumptions (particularly their ontological and epistemological assumptions) may be inappropriate in addressing some of the qualitative phenomena comprising IC.

In a separate body of literature there is widespread acceptance that social collaboration underpins innovation in a knowledge economy (Perrons 2009; Davis, 2009; Dovey, 2009; Barsh, 2008; Barsch et al, 2008; Nahapiet & Ghoshal, 1998; Leonard-Barton, 1995). As Gee et al (1996: 58), state, in the new capitalism it is not really important what individuals know on their own, but rather what they can do with others in a collaborative way to effectively add ‘value’ to the enterprise.

Within this literature, social collaboration is shown to draw upon a range of intangible capital resources (ICRs) for its effectiveness (Manz et al, 2009). These resources are embedded in particular forms of relationship and are available (at no extra cost) within all organizations but are rarely effectively leveraged by managers. This seems to be a consequence of inappropriate power management practices within many organizations (Semler, 2007; Handy, 1997). In this respect, Zuboff & Maxmin (2002: 20) point out that current organizations are still governed by an industrial era enterprise logic characterized by a managerial hierarchy with a relentless internal focus on the control and measurement of production and distribution ... (in which) managers ... (have) inherited the task of planning and overseeing a minute division of labour to accomplish the standardization, increased throughput, and reduced unit costs necessary to meet the demands of mass consumption.

Miles et al (1997: 7) define enterprise logic as the 'overall logic shaping a firm’s strategy, structure, and management processes into an effective whole' and the industrial era enterprise logic outlined above is antithetical to that required in the era of knowledge capitalism. As Gee et al (1996: 58) point out, ‘non-authoritarian’ distributed power bases are essential to effective collaboration. However, the inappropriate power management practices prevailing in many current organizations are proving to be difficult to transform because of the legitimacy afforded them by an industrial era enterprise logic obsessed with authoritarian control (Semler, 2007; Handy, 1997). As a consequence, the development of stakeholder relationships that generate and leverage the valuable intangible
resources required for innovation is inhibited \(^1\) (Barsh, 2008; Dovey & Fenech, 2007; Zuboff & Maxmin, 2002).

Enterprise size and structure have been shown to be important factors in the capacity of an enterprise to innovate (Getz, 2009; Miles et al., 1997). In general, the forms of social collaboration that underpin effective innovation are easier to achieve in smaller and flatter organizations. In this paper we focus on a range of highly innovative small-to-medium-sized enterprises (SMEs) in Sydney, Australia, with a particular interest in understanding the social dynamics involved in the effective deployment of the IC of these enterprises in successful innovation. To do this we report on two research projects, each of which utilized a non-positivist research methodology. The first project, located within an interpretivist research paradigm \(^2\), employed a phenomenological methodology in addressing the research question via twenty-five SMEs recognized by peer organizations for their innovative capabilities. The second project, located within a constructivist research paradigm \(^3\), adopted an action research methodology in exploring the research question via one SME’s attempt to compete in the global marketplace by transforming its strategic orientation to one of innovation. In each research project the factors facilitating the generation and leveraging of enterprise IC in the interests of continuous and profitable innovation are scrutinized.

2. IC and Intangible Capital Resources (ICRs)

Much of the IC literature is focused on conventional research and development (R&D) practices in organizations (Lev, 2004), and there is no specific mention of the role of intangible capital resources (ICRs) in the generation and leveraging of IC for the purposes of innovation. Within the ICR literature, which draws from a range of research paradigms, while much has been written on the role of social capital (Dovey, 2009; Nahapiet & Ghoshal, 1998) relatively little attention has been given to the role of other intangible forms of capital, such as morale capital and conceptual capital, in the realization of an enterprise’s strategic intent to innovate. Similarly, the role of leadership in the creation of a social environment in which intangible capital can be generated and deployed effectively, is not well articulated in this literature (Perrons, 2009; Davis, 2009; Barsh, 2008; Barsh et al, 2008; Miles, 2007).

3. Overview of the research methodologies and settings

The first research project to be discussed is a study of twenty-five SMEs based in Sydney, Australia. These SMEs all offer information technology products and services and are recognized by peer organizations for the innovative capabilities that differentiate them in the market. Our research sought answers to the question of the nature of the practices utilized by these SMEs that enabled them to innovate successfully on a continuous basis. A phenomenological methodology was selected for this study on the assumption that the answers to the research question could be provided by the owners of these SMEs due to their first-hand experience of the phenomenon of successful innovation. Following the phenomenological principle that the knowledge of the phenomenon under research (capacity to innovate) resides in the minds of those who have experienced the phenomenon (successful innovation), the study attempted to gain access to this knowledge via in-depth unstructured interviews. The ability of the interviewer (one of the authors of this paper) to mine the experience of each of these owners, by asking probing questions seeking ever greater detail and finer explication, facilitated an interpretation of their experience that was insightful and rich in knowledge pertinent to the research question. Each interview was tape-recorded and manually transcribed. Using hermeneutics as the analytical framework, the two researchers (authors of this paper) independently analyzed each interview and only those ‘units of meaning’ that were recognized by both, were accepted as an accurate (empathic) interpretation of the meanings embedded in the transcript. These were then clustered into ‘dominant themes of meaning’ and organized into a set of research results based on the owners’ interpretation of the phenomenon under research.

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\(^1\) A stakeholder community includes all those who hold a stake in the success of the enterprise; key internal stakeholders are the staff, while key external stakeholders include shareholders and core customers and suppliers.

\(^2\) Interpretivism assumes a nominalist social reality (where words or concepts are used to communicate about, and interact within, a social reality that is subjectively constructed) and a subjectivist epistemology (where the knowledge of social reality has no objective basis or any general natural laws to which it conforms but, rather, is regarded as a subjective phenomenon influenced by human interests, values and interpretation of experience) [see Burrell & Morgan (1979)].

\(^3\) Constructivism assumes a volatile social reality, nominalist in nature, that is constructed and contested according to the political interests of those who have a stake in its nature. It has inter-subjective epistemological assumptions where knowledge of the socially constructed reality is inter-subjectively created and sustained according to the comparative power bases of those who exercise hegemony therein and those who are in competition with them.
The second research project represented an attempt to explore the research question from another perspective. One of the authors of this paper was invited by the owner of a Sydney-based SME, hereafter referred to as IDE, that has traditionally produced customs clearance and freight forwarding software for the Australasian market, to guide his attempt to transform his enterprise from a local ‘incumbent’ operation (the enterprise’s legacy product had dominated the local market) to that of an ‘insurgent’ organization, competing globally through its ability to continuously innovate. This transformational task required an action research methodology, and the research possibilities it offered in terms of facilitating a deeper, action-informed, understanding of the nature of the everyday practices that deliver innovation, were attractive to us. In this case, the action research involved the profound transformation of the organization’s Core (mission, vision and values), strategic intent, and culture while simultaneously opening up to public scrutiny the new knowledge and insights generated through the transformational processes. Over a two-year period, with the lead author spending at least one day a week on site, a set of practices was developed that has enabled the enterprise to offer a suite of innovative products and services to a range of global customers. Furthermore, the action research methodology has facilitated rich insights into how these practices have enabled IDE to convert its conceptual capital into innovative business solutions.

4. Discussion of the research outcomes

Project One: Phenomenological Research into Innovation at Twenty-five SMEs

Our research into the leadership practices that facilitated the capacity for innovation in the twenty-five Sydney-based SMEs showed that the differentiating practices – labeled by us as realization practices – were those that enabled these SMEs to generate and deploy highly valuable social (relationship-based) resources in a strategically focused and mission pertinent manner. In this respect, two sets of realization practices stand out as critical to the conversion of stakeholder ideas into profitable new products or services:

Affirmation practices: These are leadership practices that encourage the continuous generation of ideas, and other forms of conceptual capital, within the enterprise. They include:

- **recognition practices** (monetary and emotional incentives). In these SMEs, such practices usually take the form of collective rewards for collaborative idea generation – an example of which is the award of 20% of the first-year revenues from a new product/service to the team that generated the idea that led to the new commercial offering;
- **identity-construction practices** (identity incentives). These are oriented around addressing stakeholder reputation needs by building strong personal, team and enterprise brands through appropriate praise and enterprise-wide celebration of the successful conversion of a team-generated idea into a commercially successful product or service. Interestingly, many of these SMEs also celebrate failures, thereby sending a strong message to their stakeholders regarding the leadership's recognition of 'risk-taking' as an inevitable part of the innovation process;
- **affiliation-endorsement practices** (belonging incentives). Most of these SMEs describe themselves as 'family-like' in nature, with an unwritten covenant underpinning a culture of inclusion. Generally, stakeholders see themselves as being 'in it together for the long-run'. This culture is maintained through everyday face-to-face communicative practices and orientations to stakeholder relationships that endorse the value of on-going shared commitment to the enterprise. As one CEO put it, 'our people are developed with the view that they belong here'.

Intrepreneurial practices: The term 'intrepreneurship' refers to the commitment of some stakeholders to the championing of an idea even if such action poses considerable risk to their personal interests (reputation, job, etc.). Intrepreneurial practices are politically sophisticated ways of ensuring that a creative idea is not crushed by the hurly-burly competitive politics of enterprise life that often prevent the recognition and leveraging of ideas in practice. Intrepreneurs know how to nurture an idea until they have built sufficient management support and accumulated the requisite resources for its realization as a new product or service. Intrepreneurial practices include:

- **championing the right ideas** (idea recognition and selection). Intrepreneurs are usually deeply committed to the mission of the enterprise and, thus, are able to bring to bear on idea selection processes an unbiased and insightful view of the commercial potential of an idea, irrespective of who generated it;
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- **building a coalition of support** (gaining political support for the selected idea). The conversion of an idea into a new product or service follows a highly politicized process and, thus, requires significant support from those with power in the enterprise for an idea to be taken seriously and have resources allocated to its development and realization. Intrepreneurs know intuitively whose support is required to progress the conversion process and are skilled in gaining such support;

- **appropriate resource deployment practices** (aligning everyday resource deployment with idea development and commercialization). Without the focused and appropriately managed deployment of the requisite resources, ideas are unlikely to be developed and realized in new products or services. Intrepreneurs, because of their commitment to an idea, ensure that the right resources are effectively deployed in the development and commercialization processes through vigilant monitoring and management practices.

Our results show that both sets of practices draw heavily on ICRs. In the set of **affirmation practices**, social capital resources, like trust, ensure the collaborative risk-taking endeavour that is needed to volunteer ideas. As highly personal forms of conceptual capital, ideas are dependent upon a non-judgemental environment for their expression. Unless colleagues can be trusted to respect the ideas of all, even those ideas that are not appropriate at the time, people will quickly stop offering their ideas as the threat of public humiliation, associated with rejection, is too great. In most of the SMEs under study, no idea is ever rejected – if not suitable it is 'banked' with the assumption that it may become suitable in another time and context. In this way, the problem of 'rejection' is effectively managed. Similarly, social capital is crucial to the identity construction and affiliation endorsing practices as the bonding of the enterprise stakeholder community, and its vision of a shared future, is based upon collective trust and the development of shared identities. When stakeholder relationships are bonded, with strong features of mutual identification, morale capital resources – motivational resources such as commitment and self-sacrifice - are generated and become available to the enterprise.

These two sets of realization practices work together in that the **intrepreneurial practices** manifested in these SMEs draw heavily on the ICRs generated by the **affirmation practices**. This is particularly the case in their leveraging of ICRs to facilitate the realization of ideas through the complex, highly politicized, processes of resource allocation and deployment. In this respect, the identity resources generated by the personally meaningful context of the enterprise (the meaningfulness of its mission, strategic intent and covenantal culture for stakeholders) underpin the self-sacrificial and resilient commitment of the intrepreneurs within these SMEs to the demanding political and organizational endeavour required of them for the enterprise to innovate successfully.

**Project Two: Action Research in Support of Innovation as a Competitive Strategy**

In the second research project – the action research at IDE – the practices that facilitated the successful realization of the enterprise’s strategic intent to compete through innovation, were similar though less developed given their recent introduction to the enterprise. One major difference, though, was the introduction of a new practice – that embodied in the role of an **external critic** – enacted by one of the authors of this paper during the transformation process. Sarason (1972: 250) defines an external critic as:

someone (or a group) who, at the earliest time possible, accepts the task of understanding and responding to the purposes and values of the setting, the consistency between words and actions, and the sources of actual and potential problems. He is not a member of the setting. He is an outsider, independent, knowledgeable about, and sympathetic to the purposes of the setting. He makes a long-term commitment and regularly spends time in the setting in whatever ways he deems necessary to gain knowledge and understanding. His relationship to the setting is explicitly based on agreement that his task is to contrast the reality as he sees it with the way those in the setting see it, that his goal is not to be loved or admired, and that his remuneration will not depend on the cheeriness of his perceptions. ... He is not someone who waits for problems to be brought to him; he seeks them out. His obligation is not to any individual, but to the purposes and values of the setting.

This role was introduced because of the dominant personality of the CEO (and owner) of IDE. As the lead author had supervised the CEO's postgraduate research earlier, he knew him well and an agreement was reached that this author would take on the role of external critic (EC) primarily to manage the CEO's honoring of all commitments made to the action research process. The conditions
set by the EC were that he would receive no remuneration for the role and that the entire body of staff would be informed of his intention to resign the role at any point at which he lost trust in the CEO's commitment to honoring decisions on which stakeholder consensus has been reached. These conditions were set to ensure that the EC had a power base sufficiently strong to intervene effectively in the event of the CEO over-ruling actions based on enterprise-wide consensual decisions.

The first task undertaken by the enterprise community was to identify the everyday practices required to transform IDE from a local incumbent, strategically milking a legacy suite of products, to a global insurgent organization that was competing through innovation. Through several iterations of idea generation and refinement, in which all staff participated, a new mission and vision was co-created and eight core values were crafted – values that, all agreed, underpinned the modes of behaviour that, if practised each day by everyone, would transform IDE into an innovative global organization. These values were:

- **Collaboratively, we create the future of IDE.** This core value was intended to facilitate a shift in the collective locus of control from an external position (whereby the future of the enterprise was perceived to be solely in the hands of the CEO) to an internal position (where the future was seen as dependent upon the combined skill, creativity and commitment of IDE's stakeholder community);

- **Through our work, we grow.** Interviews with the staff indicated that challenging work was the dominant value proposition of IDE staff. As a result of this core value, any staff member who felt that his/her work was no longer challenging could request of the CEO a new, more challenging role – a request that had to be honoured within two weeks.

- **IDE is an ideas company.** This core value was intended to remind stakeholders that collaboration was an obligation at IDE and that there is no such thing at IDE as a stupid idea.

- **We strive to discover the extraordinary in each other.** This core value was intended to remind stakeholders that collaborative success depends on respect for each other as creative human beings irrespective of a person's role. It was also intended to break down existing intellectual hierarchies in the enterprise that were dominated by ego-driven individuals who often denigrated the ideas of others.

- **No life balance, no creativity at work.** Staff voluntarily worked long hours at IDE and this core value was introduced to remind them that creativity is fired by emotional energy that needs to be renewed through non-work activities and experiences.

- **It is our right and responsibility to lead when we see the need.** This core value was intended to support the shift towards an internal locus on control by legitimating the exercising of decision-making authority by staff, and by encouraging their acceptance of the responsibility for decisions taken (and the learning to be gained from poor decisions).

- **No customers, no mission.** This core value focused staff attention on the forms of collaboration through which customers assist IDE in creating and improving new products and services. It makes clear the role of IDE's customers in the processes of innovation.

- **Together, we fight for excellence.** This was one of the most challenging core values as most individuals were inexperienced in the practices of constructive confrontation with others, and afraid of the potential interpersonal conflict that this core value could promote. This principle - of 'fighting for the realization of the highest level of our capabilities' - took considerable practice, and coaching by the EC, before it was successfully enacted across the stakeholder community.

In effect, these core values constituted a set of *affirmation practices* through which the conceptual capital for IDE's transformation would be generated and leveraged in the interests of effective enterprise innovation. These practices quickly facilitated a covenantal culture as individuals came to verbalize their sense of a developing 'family' environment and that of a shared future.

In spite of the staff originating from twenty-six different countries, as the action research spirals were enacted their growing identification with each other as IDE stakeholders (a process that drew in some major customers as co-producers of software products) led to the generation of powerful ICRs such as trust, norms of reciprocity, voluntary cooperation (irrespective of another's role), effective communication (especially listening) skills, commitment, and a plethora of ideas. These ICRs enabled stakeholders to 'fight with each other' for excellence; to embrace genuine learning in spite of the self-imposed vulnerability that comes with the admission of ignorance; to cherish their empowerment to
participate in enterprise decision-making in spite of the personal risks such responsibilities carry; and to transform mental models that had previously inhibited their ability to take on new and challenging roles and responsibilities. It is noteworthy that no financial incentives were offered to the staff with respect to the transformation of IDE; their committed engagement with the process, and resilience in the face of considerable challenges, was based entirely on the incentive of a workplace 'to die for' as one staff member expressed it!

The action research process facilitated the self-reflexive practices necessary for the effective monitoring and evaluation of progress towards the goal of the project. Through these, obstacles and failures were addressed through learning and the adoption of new action-informed strategy. One major impediment to change however was, as anticipated, the CEO. Although cognitively committed to the core values and the distributed decision-making rights legitimated by the core values, he was unable to cope emotionally with his 'loss of control' over all decision-making. The EC noticed that the CEO was particularly vulnerable to inappropriate emotional outbursts (through which he destroyed many of the hard-earned ICRs such as trust and commitment) when under stress and, in anticipation of such events, during such times he focused on mediating the CEO's behaviour. In effect, the EC took on a type of intrepreneurial role by managing the politics of change (especially those of power management and decision-making authority) and by maintaining the sovereignty of the core values over the CEO's whims and dictates. In order to sustain trust in the transformation process, the EC forced the CEO to publicly apologize to the entire body of staff every time he violated or contradicted one of the core values (usually by verbally abusing a member of staff who had enacted core value number six!). Although reluctant to do so, the condition set by the EC for his participation in the project ensured that the CEO apologized each time he violated or contradicted a core value. After two years, the action research process delivered a new suite of innovative products, global customers, and a strong ‘culture of learning’.

5. Conclusions and implications for further research

Two types of leadership practice appear to be at the core of the innovative capabilities of the SMEs under research. The first type includes those practices that encourage and nurture creativity within the enterprise. Listed as affirmation practices by us, these practices both generate the rich social and morale capital upon which constructively 'abrasive' social collaboration depends, and they leverage the ICRs - such as trust, commitment, learning and resilience - made accessible through such forms of intangible capital, and through which stakeholder ideas are generated and refined.

The second type of leadership practice – what we have referred to as intrepreneurship – is shown to be vital in stewarding stakeholder ideas through the highly politicized processes that will convert them into new products and services. In many ways, these 'leadership' practices are more akin to a form of committed followership that holds the leadership accountable to the enterprise mission and vision. As such, these practices are often not appreciated within enterprises – with intrepreneurs frequently regarded by those with power in the enterprise as 'trouble makers' (Pinchot, 1985). However this research shows that these practices are fundamental to the capacity of innovative SMEs to sustain innovation as a successful competitive strategy.

The paper raises several issues that require further research. Firstly, the use of non-positivist research methodologies in these studies has opened up for scrutiny, the role and value of intangible capital resources in an enterprise's capacity for innovation. The paradigmatic assumptions that underpin these research projects appear to be more appropriate to research concerning the intangible aspects of IC, and have, in our opinion, contributed to richer insights into these phenomena than those thus far delivered by positivist research. If we are correct in these assertions then there is a need for more research of an interpretive and/or constructionist nature, into the topic of IC and its role in innovation.

Secondly, by focusing on SMEs the research opens up for scrutiny the implications for innovation of inappropriate enterprise logic in large organizations that are structured as functional hierarchies. These projects show that human relationships are at the heart of the collaborative practices that underpin innovation in organizations and that beyond a certain size, and within the conventional functional hierarchical structure of most large organizations, such relationships are extremely difficult to cultivate. The kind of collaboration that supports innovation requires considerable face-to-face interaction and unless large organizations are prepared to invest in enabling such interaction, the ICRs that facilitate innovation are unlikely to be generated.
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This leads to the implications for leadership of our research findings. The main implication is that leadership needs to be focused on the development of appropriate social relationships and the leveraging of the intangible capital resources potentially available through them, in the interests of long-term organizational success. To achieve this, leaders need to transform the outmoded industrial-era enterprise logic by flattening structures and by recognizing the changed nature of stakeholder value propositions in the 21st Century. In particular, staff members aspire to empowered forms of collaborative engagement at work through which their creative, social and professional needs are met while contributing to the sustainability of their employer organization in meaningful and innovative ways.

References


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