Enhancing Organisational Creativity Through Socialisation

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Abstract: The objective of this study was to empirically examine through an industry survey, the impact of socialisation on organisational creativity. The results of the study show a strong and significant positive relationship between informal as well as organised forms of socialisation and creativity. The results also indicate that informal socialisation had a stronger positive effect on creativity than organised socialisation. These findings confirm the value of socialisation in innovative organisations, and suggest the need for strategies that would provide for its encouragement.

Keywords: knowledge management, socialisation, creativity, survey

1. Introduction

Knowledge is considered to be a key factor for achieving and sustaining organisational competitive advantage in the new economy. Yet, while the importance of knowledge for organisational success (or survival) is widely acknowledged, there is far less clear understanding about how to manage it towards accomplishing this end. Many past knowledge management projects which focused solely on technology, failed to deliver on their promises. Therefore, organisations are looking for answers about how they can deliver organisational performance and innovation through knowledge management apart from technological solutions. This study addresses the issue by empirically investigating the potential impact of socialisation among employees on organisational creativity.

Socialisation forms a vital component of Nonaka's (1998) knowledge creation model. It is also found in some other process-orientated knowledge management frameworks under different names (eg. social learning, knowledge sharing, etc.). Socialisation is assumed to enable tacit knowledge to be transferred between individuals through shared experience, space and time. Examples include spending time, working together or informal social meetings. More importantly, socialisation drives the creation and growth of personal tacit knowledge bases. By seeing other people's perspective and ideas, a new interpretation of what one knows is created.

In theory, socialisation is considered an important value-creating process. However, in practice, it has been overshadowed by knowledge capture and storage, driven largely by advances in information technology. While these processes are certainly important components of the overall knowledge management effort, companies must go beyond acquiring, accumulating and utilising existing knowledge, and focus on enabling new knowledge creation for innovation. The unifying thread among various theoretical views is the perception that creativity and innovation are the key drivers of organisational long-term economic success. By moving deliberately towards enabling creativity and by turning individual creativity into innovative behaviour by everyone, firms may ensure their long-term advancement and business success.

There is a particularly requirement for continuous innovation and knowledge creation in the hyper-competitive industries. (Ilinitch et al. 1996). In this time of change, best practices may become worst practices in little time and today's wisdom may become tomorrow's folly. Only with effective and relentless creation of knowledge can these companies compete at the forefront. A means by which creativity could be fostered and new knowledge creation encouraged needs to be defined. Therefore, this paper aims to look at whether and how socialisation may drive and induce creativity in a typical knowledge intensive organisation such as those found in the IT industry.

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2. Literature review

2.1 Socialisation

Socialisation is the process of communication and interaction between people. Thus, perhaps the most intuitive function of socialisation may be to transfer information or knowledge between people. The information exchange approach (Devlin 1999) assumes that the aim of each participant in a social interaction is to take new information about the focal object or situation into his or her context. The persuasive arguments perspective (Heath and Gonzales 1995) assumes that individuals first come up with a few of arguments of their own, then collect novel arguments during interaction, and as a result may shift their initial opinions. It also proposes that an individual's position on any given issue will be a function of a number and persuasiveness of available arguments.

A group decision-making approach (Marakas 1999) recognises the collaborative nature of the interaction act. It also suggests the potential synergy effect associated with collaborative activity. From the group perspective, it is argued that collective group learning occurs within teams through cross-fertilisation of ideas and goals setting. The creation of shared meaning and personal relationship is the key. Through the work of Weick (1995), the idea of sense making as collective meaning creation has slowly protruded into the world of organisational cognitive science and decision-making. Popular interpretations of the term annotate it as mental activities whereby individuals make sense of themselves, others, institutions and events. It is where individuals reflect and create meaning, based on interpretations of both external and internal interactions. Individuals place themselves within the context of their current situation. It is necessarily a social behaviour in that interaction with others is required to provide the context and self-reflection. Sense making is often constructed on cultural pilings held unconsciously in long-term memory.

One of the key differentiating aspects of sense making is that it is necessarily a social phenomenon – conduct is contingent on the conduct of others, whether those others are imagined or physically present (Woodside 2001). Sense making is described as a social-constructionist concept (Craig-Lees 2001). Meaning is created in relation to one another. Socialisation enables people to create and share their realities and context, not just to transfer discrete information or data. They reinterpret the world and the environment they live in. Sense making is also a paradigm shift from positivistic to constructionist and thus is associated with increased complexity. It is driven by plausibility rather than accuracy: it does not aim to reduce and deconstruct but to holistically appreciate and understand. The feasibility of adopting a constructionist concept within a positivists philosophy of organisational cognitive science has been called into question (Craig-Lees 2001) and empirical evidence of its utility in the organisational context has been mixed (Solomon 1997).

In knowledge management, the SECI model of knowledge creation (Nonaka 1998) suggests that knowledge creation starts with socialisation, which is the process of converting new tacit knowledge through shared experiences in day-to-day social interaction. Socialisation within the originating "ba" (Nonaka and Konno 1998) provides a rich and meaningful platform for face-to-face natural interaction. Sometimes labelled as co-located communication, this enables a medium where multiple senses and means (eg. tone, eyes, body) can be used to convey knowledge. A chat between employees may well be the beginning of a development of trust and foundation of vital creative work.

2.2 Creativity and Innovation

The literature offers diverse conceptual definitions of creativity. Tomas (1999) defines it in terms of the generation of original ideas. In contrast, Shalley and Perry-Smith (2001) argue that it is not enough to only be original. Also, appropriateness is vital in order to distinguish creative ideas from surreal ideas that may be unique but have unlawful or highly unrealistic implications. Furthermore, a restricted definition of the concept focuses solely on rare revolutionary and paradigm shifting ideas, while a looser definition includes useful evolutionary contributions that refine and apply existing paradigms (Shneiderman 2000).

There are also differences among researchers with respect to the way in which creative ideas are generated. Three major perspectives offered by Shneiderman (2000) include: inspirationalist, structuralist and situationalist views. An inspirationalist approach emphasises dramatic breakthrough and intuitive aspects of creative idea generation. A structuralist perspective emphasises the importance of previous work and methodological techniques to explore possible solutions. A situationalist view emphasises the social context as a key part of the creative idea generation process. Another classification of various theories recognises psychoanalytical, behavioral and process orientation perspectives on creativity (Marakas 1999). A psychoanalytical perspective maintains that creative idea generation is a preconscious mental activity, while a behavioural perspective argues that it is a natural response to stimuli, and the process orientation view sees it as a thought process that can be improved through instruction and practice.

Innovation is intertwined with creativity and the two are often used with only hazy distinctions. Often both are merely processes through which knowledge is developed and transformed into business value (Gurteen 1998). A useful definition describes creativity as the generation and emergence of new ideas. It is thinking outside the box, coming up with novel ideas through divergent, tangential thinking. Conversely, innovation is turning ideas into products, services and processes (Couger 1995). Innovation involves refining the ideas begot from creativity and then transforming them into useful solutions. Innovation requires convergent thought in applying new concepts to certain problems and situation. Practically, the term innovation represents creativity in action.

The main facets of innovation proposed by influential economist Joseph Schumpeter at the beginning of the century is still perhaps the best reference for defining innovation (Gallouj 1998). This was refined and extended by Johannessen et al. (2001) to give six means of innovation. They are new products, new services, new methods of production, new market openings, new sources of supply and new ways of organisation. Of these six, services, methods of production and ways of organisation are most pertinent to the current research as we wish to study incremental creativity and innovation. New products, market openings and supply sources are more the realm of strategic innovation and creativity.

2.3 Organisational performance

It is often said that implementing the creation of new ideas is the key for many companies' survival in a rapidly changing world (Nonaka et al. 2000). Within this framework, creativity and innovation supplant traditional means as the leverage for oganisational performance. Not only does creativity enable the building of new innovations, it is also needed since most business problems cannot be fully defined; the entire problem is unknown and yet it needs to be solved. While a hunch could be appropriate, the true process is more complex. Rather, an inexplicable mental model is formed in the mind and the problem solved in that context, with all its uncertainties. Such problems are frequent and solving them requires a great deal of systematic exhaustive lateral thinking.

While the link between creativity, innovation and performance seems intuitive, its acceptance has been questioned in some circles. Diehl and Stroebe (1991) reported significant productivity losses in so-called idea-generating groups. On the contrary, Osborn (1957) suggests that brainstorming may double the amount of ideas generated, while Bossink (2002) found it to be detrimental to the overall level of innovation in their study. Such conflicting evidence should be noted and taken into consideration when one examines the value of creativity. While creativity seems to be unconditionally desirable it is not always so (Nakamura 2000). Some of the reasons for this that include creativity may risk existing products and investment in products. For every breakthrough creating new innovative goods, there are multitudes that become obsolete. Other issues with creativity include the difficulty in measuring it and inherent risks associated with enacting innovation. So, while creativity is assumed to be a positive asset for modern organisations, this idea is not entirely undisputed.

2.4 Objectives of this study

The aim of this paper is to find effective ways to induce and facilitate creativity, focusing particularly on evolutionary creativity as it is more applicable across all levels of the organisation. From extensive literature in differing fields there is ample anecdotal evidence that socialisation has a positive effect on creativity. However, very little formal research has been conducted to challenge or affirm this assumption. Yet, theory suggests that socialisation within the originating "ba" provides a rich and meaningful platform for face-to-face "natural" interaction and creativity. According to Nonaka (1998), knowledge is created in socialisation through the interaction of different views, competencies and experiences. Our intention is to test these assumptions empirically.

3. Research method

3.1 Research design and variables

The general design of this research is that of an exploratory industry survey distributed electronically. We have taken this approach since we feel that while there seems a wealth of anecdotal evidence for KM theories dealing with socialisation, there have been relatively few attempts at industry level empirical validations. The exploratory survey based approach is most appropriate given the nature of independent variables examined. Socialisation and creativity by their nature do not flourish under controlled and restrictive environments, such as those in laboratory studies.

Drawing from prior literature (Bennet 2001, Anakwe and Greenhaus 1999), we devised new surney instruments for measuring socialisation and creativity constructs. Participants indicated the extent of their agreement with scale items on a five point Likert scale anchored by values of five (strongly agree) and one (strongly disagree). The scale is essentially self-reporting. A series of rigorous tests were applied to ensure a reasonable level of reliability and validity was achieved before data analyses was performed.

Socialisation has been operationalised by three variables extracted by factor analysis: informal socialisation, organised socialisation and personal tendency towards socialisation. The first variable "informal socialisation" tests the level of socialising and casual interaction. Informal socialisation represents the most innate form of socialisation that occurs naturally. Organised socialisation refers to the amount of socialisation that occurs as part of an event arranged by the workplace. This variable attempts to capture the amount of socialisation that occurs as part of company organised events. Closer investigation of the items for personal tendency reveals that the common thread amongst these items is that they focus more on the individual attitudes towards the workplace rather than socialisation behaviour in the workplace itself.

Creativity has been operationalised by the general amount of creativity and innovation shown at the group level. The measure was developed by drawing on factors stated in the literature (Amabile et al. 1996) along with adaptations from some of the sample scales. Creativity has been itemised on a self-reporting scale indicating the level creativity within a workplace. That is the extent to which an individual perceives creativity exists in, and innovation is introduced into the workplace. The reliability of the responses to all instrument items was assessed using Cronbach alpha coefficients. The personal tendency instrument obtained a coefficient of 0.73, informal socialisation 0.77, organised socialisation 0.72 and creativity 0.77. Scores above 0.6 are considered to be adequate (Nunnelly 1978).

3.2 Subjects and procedure

For the study we have chosen to focus on professionals either working directly in the IT industry or involved in IT activities at their respective workplaces. IT was chosen because it is knowledge intensive industry. It is still a relatively immature industry with a comparatively low entry cost (compared to other manufacturing based industries) leading to a heightened level of competition. Thus, innovation and creative insights can have a tremendous and immediate impact. Simply, the IT industry is where knowledge and creativity plays an important role in everyday work and where a significant amount of teamwork and interpersonal interactions are required. The nature of the tasks in IT means that work is rarely entirely individual in nature.

Surveys were sent to a variety of companies in an effort to vary the level of socialisation and creativity experienced by subjects. Moreover, the subjects were people with first-hand everyday experience of work in the IT industry. The focus was on grassroots people who have to deal with the everyday problems and challenges of work as opposed to management. This outlook was preferred since their roles are more suited to the study of group behaviour than a non-involved leadership role that could be the case with management. While the IT focus may limit the general applicability of our findings, it is not assumed that the findings of this paper should be limited to only the IT industry. Due to the nature of the research model applied, findings are likely to be applicable to areas beyond the boundaries of the IT industry, where high levels of creativity are required.

The instrument was electronically distributed directly to the recipients who were randomly selected within the stated sampling groups. Survey distributors were used as a go-between to follow up survey completion. A follow-up e-mail was also sent to remind recipients that the survey should be completed in order to maximise the response rates. Data collection ceased three weeks after the surveys were sent. Out of 170 surveys were distributed by e-mail, 96 were returned, a response rate of about 57%. This compares well to other e-mail based surveys which in late 1990s have an average response rate of around 30% (Sheehan 2001). Three surveys were not correctly completed and were excluded from further analysis.

4. Results

The profile of the survey sample was examined in terms of gender, age, work experience and field of work. Of the total of 93 respondents, 35 were female and 58 were male. The ratio of female respondents was surprisingly high for a study of the IT industry. Most were within the 21-29 age group (76%) and more than 91% of all respondents were under the age of 30. Given the relatively young age of the sample size, the level of work experience is accordingly low. 85% of the respondents have had three of less years of work experience. This bias may have an effect on the generalisability of the findings. All the respondents' field of work was associated with IT in some form. Most were from IT administration/programming (55%) and consulting (17%). The remaining ones were spread among various other areas including customer service, education/training, engineering etc. (28%).

A descriptive analysis of responses for socialisation and creativity was performed first to identify any prevailing patterns. The overall mean score for informal socialisation was 3.89 out of 5 (std.dev=0.60, min=2.40, max=4.80); for organised socialisation 3.32 (std.dev=0.72, min=1.60, max=4.40); and for personal tendency towards socialisation 3.86 (std.dev= 0.63, min=1.60, max=4.80). The overall mean score for creativity was 3.36 (std.dev=0.64, min=1.20, max=4.80). This amounts to the majority of the mean scores lying somewhere between the high end of "neutral" and "agree".

To test the hypothesised relationship between socialisation and creativity, the Pearson correlation coefficients were computed next. All three socialisation variables showed significant correlations with creativity ($p<0.005$). The results indicate a large positive correlation between creativity and informal socialisation ($r=0.63$), and moderate positive correlations between creativity and personal tendency towards socialisation ($r=0.43$) and organised socialisation ($r=0.44$).

In view of significant correlations between the variables, further tests were performed to identify the main factors affecting creativity. This analysis was performed using a regression model. The regression results indicate that the independent variables jointly explained nearly half variance in the dependent variable (R-square=0.45, $F=23.778$, $p<0.001$). Examining the individual independent variables, in turn, revealed some interesting results. Both informal and organised socialisation were found to have significant effects on creativity. However, the effect of informal socialisation was much stronger (beta=0.51, $t=5.55$, $p=0.000$) than that of organised socialisation (beta=0.19, $t= 2.059$, $p=0.042$). There was no significant direct effect found for personal tendency towards

socialisation impacting on creativity (beta=0.10, t=1.068 p=0.288).

In summary the results of this study have shown that (i) there is a positive and significant relationship between creativity and socialisation; and that (ii) creativity is more strongly associated with informal socialisation than with organised socialisation.

5. Discussion

In this paper, we have addressed the issue of creativity in the context of a knowledge intensive IT industry. We have adopted Nonaka's (1998) SECI model as a theoretical framework for our empirical investigation and focused on the idea of utilising socialisation to improve organisations' ability to create new knowledge. The results of the study indeed reinforce the idea that socialisation is important for organisational creativity.

The key finding of this study is undoubtedly a large and highly significant relationship between informal socialisation and creativity. That the informal socialisation alone explained over 39% of creativity's variance is a particularly significant and important finding in a KM landscape that is rich in theory and rhetoric, but scarce in empirical evidence. There is also significant support for organised socialisation. Organised socialisation explained about 6% of the variance in creativity. Personal attitudes towards socialisation had no significant direct effect on the level of creativity in the workplace. The exact nature of this factor will need to be further explored.

The significant finding relating to informal socialisation and creativity is indicative of why management would be so interested in maximising the level of effective socialisation. The idea itself is not revolutionary. The ancient Greek philosophers tended to gather around town squares to socialise and contemplate. However, informal "water-cooler" socialisation in the workplace has long been ignored as an important value-creating process for a company (Yavuz and Heidelman 1999).

This seemingly "forgotten" idea that informal socialisation, the processes of building personal relationships and empathy, forms the basis of creativity and knowledge creation has been strongly supported by the empirical results of this study. Employees who share a common vision and empathise with each other are naturally intrinsically motivated – they do what they love and are loving what they do. Such employees inevitably show more creativity (Amabile 1997). In promoting a deeper intrinsic interest and desire in specific ideas, the full benefits of creativity may be realised.

The explanation for organised socialisation's lower relative influence may be found in that creativity blossoms in an open, almost chaotic climate and that any degree of coercion can often serve to constrict innovation rather than promote it. Yet, knowledge management dictates that we attempt to harness the power of socialisation by finding methods to encourage and increase socialisation. This form of socialisation was termed organised socialisation in that it artificially manufactured situations where employees have an opportunity to socialise. In a way, it is formally creating an environment fit for informal relationships to develop. The results of this study indicate that organised socialisation does contribute significantly to creativity as shown by the regression model. Thus, organised socialisation does indeed to a point, influence the levels of creativity in the workplace, as predicted by our theoretical model. This provides support for the notion that organised socialisation works, albeit at a reduced level of effectiveness compared to informal methods.

While this research has established a clear relationship between socialisation and creativity, some caution must be exercised when interpreting these findings due to a number of limiting factors. One of the limitations of a quantitative study such as this is that while it is able to establish a relatively clear picture of relationships between phenomena, it is less apt at explaining the reasons behind it. Future qualitative research needs to be conducted to explore the exact reasons why socialisations tends to lead to a higher level of creativity. Other limitations include the use of a relatively undeveloped measuring instrument, inability to establish causality, limited demographics and a relatively small sample size.

In addition, our regression model indicates that while socialisation forms a significant part in explaining and influencing creativity, it is by no means the only factor. The relatively large R-square value of around 45% for the regression model, confirms that there is certainly a highly significant relationship. What it does not do, however, is provide an explanation for the remaining 55% of unexplained variance. It is this 55% of creativity that needs to be examined in future research.

One of the key questions that needs to be asked is whether the effectiveness of organised socialisation was compromised due to any level of coercion associated with manufacturing social situations. A study into the relationship between levels of coercion with organised socialisation and creativity would be of great interest to management. In KM, one of the key ideas that gets around is the importance of culture. This idea like most concepts in KM is not at all well defined and yet it is often touted as one of the most vital factors in successful and continuous knowledge creation and creativity (Yavuz and Heidelman 1999, Davenport et al. 1998). Management support and encouragement (Davenport and Prusak 1998), as well as freedom and availability of time for creativity (Nonaka and Konno 1998) are seen as playing an important role in the development of a knowledge culture. Future research is required to delineate and clarify the nature of this knowledge culture and to formulate instruments that will reliably measure it.

6. Conclusion

This study has demonstrated that socialisation has a significant impact on organisational creativity. It has also shown that informal socialisation had a much stronger positive effect on creativity than organised socialisation. Despite their limited generalisability, these findings make several important contributions to knowledge management research and practice.

For research, they contribute important and previously imprecise and deficient empirical evidence confirming the value of socialisation in innovative organisations. Management often finds theoretical, qualitative research insightful but is wary of basing decisions on it, fearing the fallibility of the logic and a lack of strong quantified data (Nancarrow et al. 1996). The presented results herein represent a small step towards alleviating the dearth of empirical data in KM. They also suggest that the chaotic and unstructured nature of much socialisation may be a critical factor for promoting creativity.

For practice, these findings imply that a set of inter-related strategies, enabling and encouraging continued informal socialisation need to be formulated. The key appears to be in providing encouragement without delving into coercion, in striking a balance between giving too little encouragement to socialisation and enforcing socialisation. By striving to provide the "right" environment for encouraging and fostering socialisation and, by extension, creativity, organisations may realise the economic value of knowledge management.

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