

Review of Knowledge Sharing: Conceptual Foundations for Micro-level Knowledge Sharing and Readiness-for Change Related Behaviours

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Abstract. In the organisational change and knowledge sharing literature, recognition of high failures of change efforts is said to be associated to the organisations lack of understanding of how to manage readiness for change. In this paper, the case for change readiness is invoked by a need for further explanation of micro level foundations. A survey of 105 scholarly academic journals in the area of knowledge sharing research from 1994 to 2009 with keywords salient to knowledge sharing studies was conducted to explore current thinking about organisational change issues. The findings reveal that there is yet no well-established method or clear conceptual definition to exploring the phenomena of change for knowledge sharing on both individual and organisational levels. Based on the literature survey a model is proposed to integrate the relevant themes that influence knowledge readiness. A discussion is presented, demonstrating future directions towards knowledge sharing for micro-level knowledge sharing and readiness for change related behaviours.

Keywords: Knowledge-sharing, readiness for change, organisational-change, knowledge- management, micro-foundations.

1 Introduction

Interest in knowledge management has increased rapidly as reflected in the expansion in the literature surrounding the concept since the mid-1990s. It is claimed that the only resource that provides an organisation with sustainable competitive advantages is knowledge [1] [2]. To date, proponents argue that the importance and factors that acts as a barrier to successful knowledge management is the sharing of knowledge [3]. The ability of an organisation to share and apply knowledge is however hard to do without the change of culture to support a new attitude. Irrespective of the growing awareness of the benefits of knowledge sharing, there has been relatively little understanding of the change factors, and how it can nurture a knowledge sharing culture [4].

In the organisational change and knowledge sharing literature, recognition of high failures of change efforts is said to be associated with the organisations lack of understanding of how to manage readiness for change [5] [6] [7] [8]. Not surprisingly,

many studies who show organisations introducing information technology as a means to encourage knowledge sharing, also note that this is not straightforward because assessed readiness for change is low [9] [10]. The notion of change readiness is described as the initial part of the natural cycle of change. It insists on clear micro foundations, in that it requires people to focus their attention in a state of action readiness for change [7].

While the notion of readiness for change has been explored in the change literature, it is however a concept that has not yet been fully explored or understood in the knowledge literature. More generally, the relationship between knowledge research and change remains under-represented, theoretically as well as empirically. To date, few studies that have explored the combined contributions of organisational change and knowledge sharing have been much devoted to informal constructs as facilitators of organisational change [11] [12]. For example, these types of studies relied heavily on organisational level knowledge sharing, that of networks of individual influences as the focal unit of analysis to solve the organisation knowledge problem [13]. We argue that these studies do not account for any well-articulated theories of change or explicitly compare the connections between the individual's level readiness and organisations change to promote knowledge sharing. In other words, change and the inability to change are often viewed as macro-level phenomena and what constitutes as a change facilitator is perceived in terms of the role of informal factors in shaping the appropriate change effort [7].

Although the understanding of informal factors is of prime importance, such macro-level explanations of knowledge have ignored the central role of individual level factors, which can serve to maintain organisational level knowledge issues [14]. The paper validates recent theoretical calls for a stronger focus on micro level explanations [13] [14] [7]. To accomplish this aim, an extensive review merging both knowledge, and change literature is warranted, to advance and direct future research in organisational knowledge sharing practices. The paper surveys 105 scholarly academic journals in the area of knowledge sharing research to provide a better understanding of the phenomena of change. The review includes search for journals that conceptually define and explore organisational change, including any that consider readiness for change.

The paper contributes to the knowledge literature by introducing the notion that readiness for change is an organisational mechanism that can provoke a transition to existing knowledge related initiatives between the individual knowledge workers, where knowledge resides, and the level of the organisation where knowledge and change can be obtained. More specifically, we ask the following two research questions: What are the various change developments on knowledge sharing initiatives that have been investigated in the knowledge literature? What readiness for change methods have been used within the area so far?

The paper is structured as follows: Section 2 covers current and early theoretical foundations in the knowledge and change literature as well as the theoretical justifications proposed for developing readiness for change. Section 3 presents the method used for surveying the literature, followed by Section 4, which presents the results of the literature survey. Section 5 presents the knowledge readiness model drawn on literature from fields such as change and knowledge related research. The paper concludes in section 6 and 7 with some discussions and research questions to guide future work.

2 The Current Trends in Knowledge Sharing Research

2.1 Knowledge and Sharing Knowledge in Organisations

Knowledge management as an interdisciplinary field covers a broad spectrum of activities, which has come to describe a continuum of organisational practice and academic theory. All of these initiatives involve processes comprised of various methods, concepts, and propositions, designed to support individuals, groups and organisations, as prime movers to make use of organisations collective expertise [15]. The prevailing view of the characteristics of these firms or of particular characteristic of work within a firm as knowledge intensive implies a more significant role for knowledge [16]. Indeed, the extent that knowledge is scarce and tacit has become increasingly important to find ways of transferring its economic value [17]. [19] argues that the nature of this knowledge develops in organisational culture and a direct result of human action, rather than human design. The cost of maintaining such knowledge is also not small and the costs are strongly constrained by: ‘imitability and replicability consideration’ [15] [16]. These values are deeply embedded, tacit assumptions and are difficult to talk about and even harder to change. Thus, implicit in this, is that much of organisational knowledge is constrained at the level of individuals [19].

A constant theme in most definitions of knowledge management is the sharing of knowledge. Research on knowledge sharing refers to a broad line of studies that draws upon different concepts, and definitions based on various established frameworks. For example, [51] maintains that different perceptions of knowledge sharing occur when the “different objectives of knowledge sharing are appreciated”. More importantly, knowledge sharing directly involves the individual and organisational level, in which knowledge creation can take place [19] [2]. It is still an emerging area of inquiry, insisting on further identification, observation and definition [13].

The most regularly cited, as one of the concerns for improving knowledge sharing initiatives is the organisational culture seeking to understand how the organisational characters determine the success of knowledge sharing [12]. Some scholars argue that [21] [8] [20], while organisational cultures are an ever present and dominant force in shaping behaviours they are generally too complex to change directly. Indeed, the nature of knowledge and knowledge sharing that develops in organisational culture and a direct result of human actions usually makes change readiness to improve knowledge sharing initiatives difficult to establish.

While culture has been an overriding theme in the knowledge literature, often in connection with other central themes (e.g., knowledge work in an intra-organisational network) for theorising different knowledge processes, several writings question how such explanations of knowledge can capture vital explanatory mechanisms on the micro level [14] [22] [23]. This view is echoed by [14] who argues that considerable attention should be paid to explanatory mechanisms that are located at the micro-level foundations and that can serve to maintain macro-level behaviours. For example, [14] forcefully argues that while there is a direct connection between organisational collective culture and organisational performance, intervention would have very limited effect on culture change without assessing the level of individual level actions and

interactions. They suggest that what are missing in the extant literature are clear micro-foundations.

Consistent with this emphasis of the individual's level approach was that of [2], who expressed dissatisfaction with the notion of organisational level knowledge. [2] argues that, "viewing the organisation as the entity which creates, stores and deploys knowledge, the organisational processes through which individuals engage in these activities maybe obscured". More recent studies suggest that knowledge management studies would benefit more from commencing from low level concepts and methodologically develop theory upwards to identify how macro knowledge related results emerge from micro-level antecedents [22] [23]. The following section based on current and early studies, establishes the role of knowledge sharing in the knowledge and change literature.

2.2 Theories of Change and Organisational Knowledge Sharing

Although there is much research about why managing knowledge is important to organisations, there is noticeably less on how organisations can enact change in individuals. Theories typically placed in the organisational camp, specify that change is a process of continually refining the organisations structure and capacity to serve the ever-changing needs of external and internal customers. Subsequent research has found that change initiatives can equally affect the use of knowledge in the organisation and weaken the effectiveness of established knowledge sharing relations [24] [11] [15]. As prior studies show, even under the best of circumstances, knowledge sharing is formative, and socially constructed, akin to high-level of 'autonomy, complexity, and uncertainty', which may channel knowledge work, time and energy in different ways [26] [25]. Pressures stemming from these human factors can both facilitate or inhibit the performance of change in organisation.

Several studies have yielded support for these perspectives. [27] asserts that the quality of relationships among individuals can play an important role in shaping interpretations of change. They argue that in the course of complex change, while individuals need for information increases, both the quantity and quality of available information often decline. Indeed, individuals are likely to rely on other individuals to share knowledge, typically through reliance on informal sources to make sense of what is happening, leading to more complex understandings of any change effort [27].

Research conducted by [28] for example, offers a framework that facilitates an examination of the potential role of knowledge sharing for improving knowledge work processes. He found that employees increased reliance on informal sharing and receiving of knowledge demands greater change effort. As [26] found that management involvement may have limited influence, affecting change to sharers in the course of their everyday-work. They showed that sharers who engage in complex decision sharing on their own demonstrate a high-level of autonomy and self-management. Also, [29] pointed out that such networks or communities of practice are not amenable to change through formal intervention. [30] found that learning is more difficult in new situations, and more generally, an individual's 'know-how in what he or she knows

well', will only change in incremental fashion. Also [31] maintains that, "new ideas and practices are adapted not just adopted".

Alternatively, the seminal work of [32], 'Improving Knowledge Work Processes', showed that organisations who design a change program to knowledge creation improvements, should propose a change that is more conducive to autonomous social behaviours. Moreover, evidence suggests that a social approach appears to be more pertinent to organisations that share knowledge and learn through informal processes [33] [11] [29] [35]. [35], perceptively noted, that informal approach allows greater learning and sharing of knowledge, because of the flexibility and decentralised nature of this coordination. On the other hand, evidence suggests that such studies focus heavily on the use of informal channels as the focal unit of analysis [22] [23] and do not go far enough with respect to accounting for individual interests, knowledge and beliefs [13]. According to [7] in their examination of individuals change processes found that even at the collective-level that takes place in the organisation are the results of some incorporation of the activities of individual level members.

2.3 Importance of Readiness for Change in Knowledge Research

Research on readiness for change and knowledge management models converge on similar dimensions of organisational change affecting issues of how organisations can enact change in individuals. These studies aside, very little empirical research has focused on the individual's perceived readiness 'that of more micro-level explanations', because they largely centre on the role of top level management to create readiness [36]. At the same time, it is argued that the inabilities to change are often viewed as macro-level phenomena [7]. Thus, researchers have come to view inability to change as mainly stemming from the organisational level issues, while neglecting parts of the individual level [7]. Such dissatisfaction is manifest in the knowledge literature. For example, [37] puts it, that knowledge management undergoes a similar problem as many other management and organisational change labels, in that organisations treat knowledge as an object and amenable to being 'managed'- by a subject (a manager). [38], explains that there is a practical and theoretical disregard to confuse individual change with modification in organisational level variables.

Theory and research on readiness for change focuses on the initial change preparation, capturing the knowledge, that resides within individuals and beginning the moving process. The key essence of change readiness therefore is the interplay between the behaviours and actions of an individual and the cultural and organisational influences on that individual. It is particularly seen as a response to traditional change theory, whose models are perceived as more conducive to organisational-level issues [39] and which has dominated much of the organisational change literature [41] [5] [40]. Readiness for change models, which correspond to the notion of unfreezing behaviour, [5] have been applied extensively to numerous behavioural factors combining organisational [5] and individual models [40].

There maybe many ways to define readiness for change. Authors such as [40], describe readiness as an initial preparation for individuals to begin the moving process. They consider readiness as the cognitive basis to "minimise resistance to, or support

for, a change effort". [36], describes readiness as a reflection of an organisational member's beliefs, intentions and attitudes regarding the extent to which an individual is disposed to adopt and accept a plan to purposefully alter the status quo. This definition of readiness suggests that individuals have preconceived notions regarding the degree to which the organisation is ready for change [42]. The notion of readiness for change was expanded by [39] who postulated that readiness is an essential part of underlying the initiation of a change intervention that can change or alter an individual's readiness. For instance, [8], reinforced this point of view, and argue that it is important to create a sense of urgency so that individuals are ready to change. With no sense of urgency, [8] insist that change will not occur.

The role of readiness in change related outcomes could be further explained using Armenakis and colleagues [40] change readiness model. Specifically, their conceptual principle of the theory proposes that readiness comprises five message components to create readiness for change: discrepancy (or sense of urgency) principle support, (the belief that leaders must support the change effort) efficacy (increasing confidence of individual ability to successfully implement the change), appropriateness (is the action taken a correct one), and personal valence (employees ask, what is in it for me and what the positive and negative outcomes are). The model proposed by [40] as depicted in Figure 1, suggests that each component overlaps, and each influence or determines the others and determines organisational members' readiness for change.

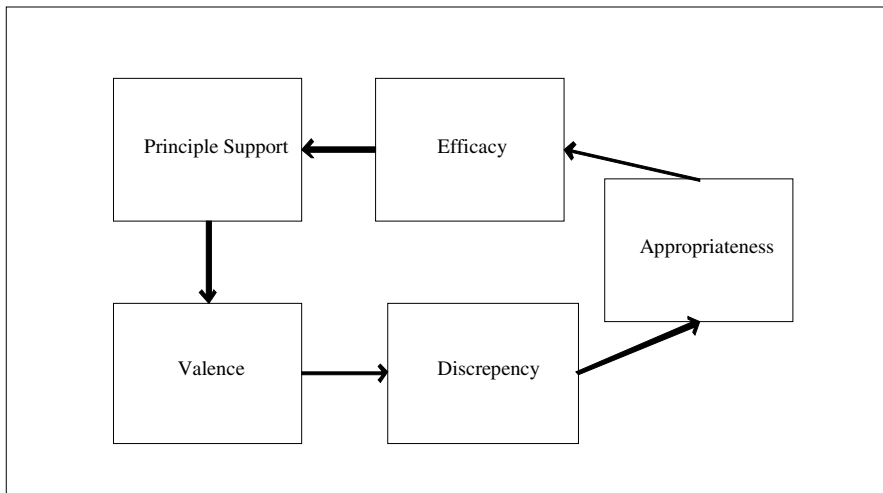


Fig. 1. Readiness for Change Model adapted from Armenakis and colleagues [40]

The overall theoretical perspective proposed by the readiness for change model in Figure 1, contributes to the notion that change resides within individual levels. This focus of readiness is central to understanding change in organisations, and change in the way in which knowledge initiatives are implemented and which often stems from

the efforts of people. The human centred approach to intervention is also fundamental to what [13] demonstrates in a recent review of the knowledge sharing literature. As [13] maintains, that literatures are often preoccupied with examining informal mechanisms at the cost of formal ones. They postulate that an integrated view is needed, in which both formal and informal factors have more potential to develop efficient organisation for knowledge sharing. For example, informal factors such as culture that is harder to change could be guided by formal arrangements (i.e. coordination mechanisms) that could establish what fosters readiness for change within knowledge sharing cultures.

Other examples are [4] of a study concerning the definition and measurement for addressing change readiness on organisational knowledge management efforts. According to [4] found that what is often required for knowledge management efforts are significant organisational change. They forecasted three different stages toward change. Firstly, readiness would occur when the individual's attitudes are such that they are open to an upcoming knowledge management initiative. Secondly, adoption occurs when individuals adjust their attitudes and behaviours to agree to the expectations of the knowledge management effort. Finally, institutionalisation occurs when knowledge management becomes a permanent part of employees' behaviour and fabric of the organisation. In the following section, we elaborate on the methods adopted and the results from the literature survey.

3 Method

The review method of identifying change theories in the knowledge sharing literature is an adaptation of the approach proposed by [43] which proceeds in the following stages: (a) Firstly, key contributions are likely to be in leading journals including conference papers with a reputation for its quality (b) Secondly, identifying other relevant research should include search for citations or reference from the existing journals considered (c) In the final stage, the relevant journals should be determined.

A range of knowledge management perspectives has been reported on the concept of knowledge sharing in organisations. This research study carried out a literature survey and targeted only scholarly published journals primarily through online electronic databases. The journals selected were from the field of computer science, organisational, managerial and social sciences. The search was limited to the knowledge research field. Table 1 presents the names and number of journals found. These journals were published between 1994 and 2009 with key words salient to knowledge sharing studies, including knowledge-sharing, knowledge-transfer and knowledge-exchange.

After filtering the various topics, the search resulted in 105 journals. The initial review of the literature began with an analysis of publications that discussed the concept of organisational change and how change activities are used in developing knowledge initiatives. The review process was then narrowed down to publications that referred exclusively to the change readiness or any early change activities within organisations for knowledge sharing practices.

Table 1. Selection and Number of Journals

Journals	No. of Journals
Academy of Management Journal	6
Academy of Management Executives	2
Organisation Science	10
Administrative Science	3
Academy of Management Review	1
Management Science	2
Strategic Management journal	7
MIS Quarterly	4
Organisational Studies	2
Journal of Management IS	3
Organisational Dynamics	2
International Journal of IM	2
Decision Support Systems	5
Journal of Human Resource Management	2
International Journal of the Economics of Business	1
Journal of the Association for IS	1
Organisational Behaviour & Human Decision Processes	7
International Journal of Electronic Collaboration	1
Journal of Information Technology	2
Journal of Strategic Information Systems	3
Information Systems Journal	1
British Journal of Management	1
Management Learning	1
Knowledge and Process Management	1
Experts Systems with Applications	1
International Business Review	1
International Journal of Project Management	2
California Management (US) Review	1
Journal of Knowledge management	5
Sloan Management Review	3
Journal of Management Studies	2
Information Resources Management Journal	2
Journal of the American Society for Information Science & Technology	1
Harvard Business Review	1
Information Strategy, the Executives Journal	1
Long Range Planning	3
European Management Journal	1
British Journal of Educational Psychology	1
ICIS: International Conference on Information Systems	1
Journal of Information Science	1
International Journal of Human Computer Studies	1
Information & Management	1
Journal of Management	1
American Journal of Sociology	1
Journal of International Business Studies	1
Knowledge Management Research & Practice	1
International Journal of Human Resource Management	2

4 Results

The literatures reveal that very few knowledge management theories exhibited the concept of change. The review identified that out of the 105 journals surveyed, 54 (or 51.4%) appeared to be addressing knowledge sharing primarily from a network perspective (e.g., knowledge work in an intra-organisational network). This category includes all journals that described groups, cross-functional teams, networks and community issues to knowledge sharing activities. In 47 journals (44.8%), the literature appeared to outline two other central themes, namely organisational level constructs and the characteristics of knowledge. The former includes literature that reasons directly from the organisational structures, capabilities, competitive advantage, and information technology perspectives, while the latter focuses on taxonomies of knowledge and the different dimensions of knowledge (tacit versus explicit knowledge).

By comparison, in three of the journals (2.9%) change was linked to cultural barriers to sharing knowledge, the support of organisational informal networks for a change strategy, and the affect of organisational change on knowledge management strategies. For example, [44] study of organisational knowledge initiatives, change involve mixes of knowledge (tacit and explicit), and was more concerned with the status of technology and how they can best be utilised during a change strategy. At the same time, our review revealed that one journal (0.9%) [4] focused on readiness, emphasising on the appropriate readiness for change measures for organisations undergoing a knowledge management initiative.

At an overall level, despite of the term used to denote organisational change, the journals offered no conceptual definition of organisational change. Instead, it was observed that the literature often use the term change 'loosely', and relied on readers commonsense to rationalise the terms that they use, such as 'behavioural change,' [45], 'inability to change people,' [46], and 'knowledge change', [47]. Some authors described change, as a behavioural and cognitive approach in terms of the individual intentions, beliefs or ability to adopt certain behaviours e.g. [48] [49], while some use the term to describe firm-level capabilities as indicators of managing the organisations resources e.g. [28].

There were no significant journals found that drew upon existing change models e.g. [7] [5] [39] [8] and little on the broader aspects of the nature of organisational change. In general, the vast majority of the findings revealed that change readiness constructs could not be determined. Finally, our literature search demonstrate that knowledge sharing literatures have been too preoccupied with informal constructs, namely through 'networks of individual influences as the focal unit of analysis'.

5 Integrating Themes That Influence Knowledge Readiness

In recognition of the challenges of change efforts identified in the knowledge literature this section presents a model that will be used to further analyse the potential role of knowledge sharing and change readiness factors in organisations. To this end, the paper builds on the readiness for change model proposed by [40] five message domains (discrepancy, appropriateness, principle-support, efficacy, and valence). The

model as shown in Figure 2 demonstrates the interplay among the [40] readiness constructs to consider the relationships between knowledge sharing and readiness for change related behaviours.

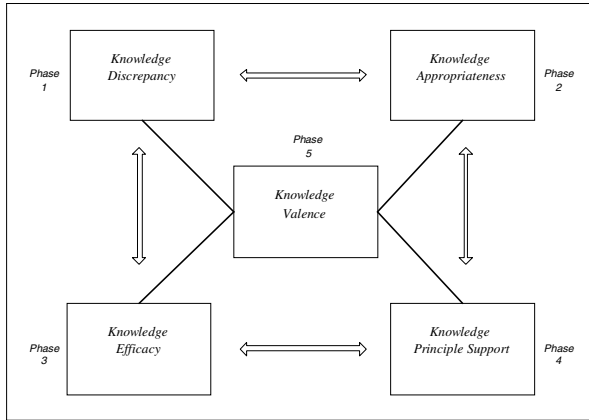


Fig. 2. Model of Knowledge Readiness adapted from Armenakis and colleagues [40]

For the purpose of demonstrating the significance of each readiness construct, Table 2 illustrates the different dimensions and relationship of each construct. Academic and practitioner interpretations of knowledge sharing are captured against the themes identified in Armenakis model to consider whether these theories can be enhanced once they are incorporated.

The model (Figure 2) serves to illuminate micro-level factors and how they influence other factors that support or impede organisational knowledge related change (macro-level). The model illustrated is cyclical, however, for explanatory purposes; it is beneficial to start at *Phase 1*, (*Knowledge Discrepancy*) where change readiness stems from how an organisation conveys a change message. Researchers have observed that people’s initial interpretation of change can influence their understanding of it [27] [8]. These interpretations can exert a mediating effect on other individual’s readiness. More important, the reactions and relations between organisational culture, subculture and their commitment to change can reflect the circumstance of individual level readiness [20]. However, a change message maybe more effective by determining the work of existing knowledge sharing cultures, hence, ‘adapting a knowledge initiative to an existing culture,’ as opposed to starting from the beginning[33].

The next phase (*Knowledge Appropriateness*) of the model conveys that socialising change on individuals can be used to communicate the appropriateness of the suggested change. For that reason, at this stage it maybe useful to consider the conditions and environments that facilitate a process of socialising the appropriateness of change readiness in order to engage in dialogue and to form a common language, which can diminish the barriers [50] among multiple individuals with different backgrounds. Furthermore, in the organisational change literature, it is observed that ‘short-term results’ can help people to understand the appropriateness of a change message more clearly [8].

Table 2. Knowledge and Readiness for Change related themes

Discrepancy (Definition)	Appropriateness (Definition)	Principle Support (Definition)	Efficacy (Definition)	Valence (Definition)
Discrepancy is the term used to describe a departure from a current state of the organisation to some desired end state [40]	Appropriateness conveys that the proposed change solution or the end-state intended, should be the appropriate one.	Principle Support conveys that change efforts can fail due to lack of support from key people to support a change initiative.	Efficacy focuses on increasing confidence of individual ability to successfully implement the change	Personal Valence refers to the perceived benefit one may expect as a result of an organisational change [40]
A change process could be guided by establishing the work of existing knowledge sharing cultures as opposed to start from the beginning [33]	Short-term results' have been observed to help people to understand a change message more clearly [8]	[52] argues that when change occurs, there will be instability, in which differences of opinion must be reconciled	Individuals may choose not to participate in a knowledge sharing initiative because individuals are more willing to participate if they believe their contributions will be valuable to others [48] [49]	Individual members must be informed about the benefits of knowledge sharing and given the opportunities to experience the advantages themselves [41] [20] [33]
Change researchers have commonly used this approach in describing the creation of beliefs that a change is necessary [7] [41]	Knowledge sharing initiatives are complex and change is a long-term process, short-term impact will enable employees with understanding of how change is occurring [10] [11]	Change initiatives should relate to the motivation for knowledge sharing [3] [23] [51]	You have to create trust [3] from people if a change process is to succeed.	Employees may not share what they know with other co-members due to insufficient knowledge of the benefits of doing so or because they cannot handle [45]

In *Phase 3 (Knowledge Efficacy)* the model illustrates how individuals are more willing to adopt a change initiative if they consider their personal contributions will be valuable to others [48] [49]. It reveals the key role that individuals play in the change process and the sources of resistance, such as outcome expectancy, self-efficacy and inertia can often delay the cycle of change [7]. The notion of trust and organisational incentives can however motivate readiness and may lead to organisational members to support a change [3].

In the course of change, 'key people' (such as organisational managers, leaders) may not be inclined to participate in a change initiative. This issue is highlighted in *Phase 4, (Knowledge Principle Support)* which illustrate how key people to a certain degree can dictate the actions, behaviours and attitudes of other organisational member's decision to participate in a change initiative and hence, influence their own/others readiness.

The final aspect of the model illuminates the perceived benefits of change (*Knowledge Valence*). Individuals assess the potential impact of the change, in terms of how

it will benefit them. For example, despite the large investments in knowledge management systems, such change may not be adequate on their own, because individuals may not be ready to take part or share what they know with other co-members due to insufficient knowledge of the perceived benefits of doing so [49]. It is often argued that the benefits of such change initiatives should be internalised through action and practice, to become a part of the individual's tacit knowledge base, in the form of 'technical know-how' [50]. Change experts argue that individual members must be informed about the benefits of change and provided the opportunities to experience the advantages themselves, if not this can delay the implementation of the change initiative [8] [39] [5].

6 Discussion and Future Research Directions

This paper is based on a literature survey of 105 scholarly academic journals in the area of knowledge sharing research from 1994 to 2009 with keywords salient to knowledge sharing studies to explore current thinking about organisational change issues. The review includes search for journals that conceptually define and explore organisational change, including any that consider readiness for change. The analysis in this paper confirms that while a continuum of research in knowledge sharing address the role of motivational and informal-level factors (particularly research on intra-knowledge sharing networks) there exists little conceptual definition of both individual and organisational level change. The findings of the literature survey also reported that there is a lack of direct evidence or theory to exploring the phenomena and relationship between organisational knowledge initiatives and organisational readiness for change. It was observed that the literature often use the term change loosely, or change was used in general terms, and relied on readers commonsense to rationalise the terms that they use.

Given the significant challenges to effective knowledge initiatives in organisations the paper validates recent theoretical calls for a stronger focus on micro-level foundations [13] [14] [53] Following these similar models, we have attempted to extend our knowledge towards understanding individual perceptions of readiness for change and its effects on knowledge related initiatives in organisations. The paper further contributes to the knowledge literature by introducing the notion that readiness for change is an organisational mechanism that can provoke a transition to existing knowledge related initiatives between the individual level knowledge workers, where knowledge resides, and the organisational level, where both knowledge and change can be obtained. Therefore, the central assumption we make in this paper is that since knowledge sharing (creation, and use of knowledge) is a phenomenon inspired and executed through individual and group level processes, research needs to consider commencing from micro-level explanations in order to achieve a clear understanding of individual readiness for change.

Our proposed model serves to illuminate micro-level factors and how they influence other factors that support or impede knowledge related change-factors. Five-novel knowledge factors were constructed using the Armenakis [40] five-message domains. The model may provide valuable guidance in identifying a set of essential readiness for change actions necessary to an organisation and individual's knowledge initiative.

This paper contends that further conceptual and theoretical issues for reconciling knowledge related and organisational change initiatives are in need of future research. Some possible future research questions include: (1) How do organisational environments influence readiness for change on existing knowledge work? (2) What readiness for change mechanisms can influence the 'role of individual's motivations' to share knowledge? (3) How do individual's perceptions of readiness affect the 'adoption phase' of a knowledge related initiative? (4) How do managers and leaders create a state of organisational readiness for change to knowledge sharing initiatives? More work is needed to explore these benefits of organisational change mechanisms on knowledge work in order to determine individual-level characteristics for change readiness. The work presented in this paper, may provide a further step towards this direction.

7 Conclusion and Limitations

In the organisational change and knowledge sharing literature recognition of high failure of change efforts is said to be associated to the organisations lack of understanding of how to manage readiness for change. Typically, the inability to change people's beliefs, attitudes, and intentions restrains all other aspects to managing change. We argued that change and the inability to change, in the knowledge literature are often viewed as macro-level phenomena and what constitutes as a change facilitator is perceived in terms of the role of informal factors in shaping the appropriate change effort. However, the paper reinforces the argument that while the understanding of informal and organisational level factors holds an important place in the knowledge management domain, such macro-level explanations maybe enriched by consideration of the individual level change. Knowledge management research in general has yet to fully engage the notion of readiness for change on the role of knowledge sharing initiatives in organisational work processes.

It should be noted that the study is subject to limitations. The first, in particular, is the limitation in the number or volume of the literatures obtained. Future research might provide larger volume and variation of journals to explore the area. However, we trust the volume of the literature obtained in this study is of sufficient number, and that it should not deter the fact that the notions of organisational change, and above all change readiness has not been fully explored in knowledge research. Next, since this study is limited to the investigation of knowledge sharing, future research, may establish the relationship between other knowledge activities, such as knowledge-creation, and knowledge-work behaviours or virtual-knowledge teamwork, based on the role of organisational change readiness contributions. Finally, findings from this study may encourage fruitful opportunities to increase the limited store of empirical investigations on readiness for change to organisational knowledge sharing initiatives.

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