Leveraging knowledge for innovation: what makes a difference?

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Abstract
This paper sees knowledge as the key organizational resource that differentiates organizations in their capacity to compete. Managing knowledge for innovation in products, services, management and processes is critical to organizational agility for effective competition. We disclose the selection of tools and techniques employed by innovating organizations to leverage knowledge and with the entity that leads and has authority over those knowledge management strategies. We find that these factors differentiate innovating organizations from those organizations with other KM aims and objectives.

1. Introduction
In today’s competitive and economically uncertain environment, the ability of an organization to innovate is imperative as a means of sustaining competitive advantage. Innovation can be found in products, services, organizational processes and also in managerial innovation and in business model innovation [1]. It can be achieved through the creation of something entirely new or the new combination of existing elements [2]. Most knowledge strategy frameworks in the existing literature explain the implications of managing knowledge through analysis of the knowledge requirements and gaps in organizations [3-5].

However, studies have not focused the importance of innovation as a specified goal of KM, nor the significance of that goal among other KM goals. Further we find no evidence of the range or relative importance of the KM tools or techniques utilized to support innovation. This evidence will develop the understanding theoreticians and practitioners of the specific practices used in that endeavor.

This research investigates patterns of KM activity as a support for innovation and creativity. The structure of the paper is as follows. The following sections discuss the management of knowledge and the support of innovation. We then describe the research design and present the survey results. Finally we discuss these results and draw conclusions for theory and practice.

2. Knowledge and innovation
A knowledge-based view sees as vital the ability of a firm to recognize the value of new, internal as well as external information resources [6]. This includes the capacity of the organization to absorb knowledge from a broad range of resources including people as well as documentary resources, and to then apply that knowledge in new and innovative ways to create new products or services aligned with strategic aims and objectives is critical to its innovative capabilities. Innovation is also required for the continuous improvement of existing products and services. Innovation is found in the new product, the new technology, the new market, the new material and the new combination of existing elements. It is sought in whole new concepts and also through incremental change [2].

Davenport [1] noted that innovation occurs in the domains of business and managerial processes, and of business model innovation. The source of innovation is found in the knowledge of employees and also from external sources. Leveraging organizational knowledge is contingent on recognizing and managing existing knowledge resources, and the capacity to absorb new knowledge, to interpret it and to innovate [7].

Leonard [8] asked why some companies are better than others at successfully developing new products while when the competitive environment changes, companies that continue only with what has worked in the past are often put at a disadvantage. Leonard specified four activities involved in the innovation process: integrated problem solving, implementation of new methodologies, experimentation, and the importing of know-how. Why then are some companies better at managing innovation than others? It is articulated in the relationship between successful innovators and the way they create, nurture, and grow the experience and accumulated knowledge of their organization. Walsh [9] found that rule bound organizations are an obstacle to innovation. Focus on the use of precedent from the past (organizational memory) is not as useful if there is not conscious consideration of the differences and similarities between the two scenarios. This poses the problem of the establishment and following of best practice ... is innovation then possible?
Prahalad and Hamel [10] suggested that "core competencies are the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies." Competencies are the key resource and when these are not recognized then innovation is bounded and becomes core rigidity.

Innovation is episodic in nature and is not linear but often occurs in circumstances where situations overlap and are iterative [11]. That is innovation can be discontinuous and disruptive to process, or may be part of a trial and error development process [12]. Processes to manage knowledge for innovation are mediated by social networks, organizational culture, by technology and supporting equipment that are used both for knowledge transfer and exchange, and also in the material development of the innovation itself.

Teece [13] suggests that capacity of the organization to sustain its ability to innovate is predicated on the capacity of the organization to learn, to expand its knowledge base and for people to share their knowledge. The responsibility of the organization that wishes to sustain its innovative capacity is to facilitate this process to increase depth of existing knowledge resources and the diversity of ideas. This can be achieved by recruitment policies, permeable organizational boundaries to allow new ideas in, providing and facilitating time for employees to innovate beyond their job description, mentoring [14]. Innovation therefore depends on the availability of the right knowledge at the right time, and is supported by complexity created by the availability of and access to that knowledge. Du Plessis’ [2] supports the argument that this factor must be recognized and knowledge be managed to support an effective environment for innovation.

### 2.1 Knowledge Management strategies

Knowledge is multifaceted and can be acquired, shared and applied. It comprises truths and beliefs, technical methodologies, expertise, knowhow and judgments [15-17]. With rapid industrialization, there has been both causal and consequential escalation of the methodologies, tools and techniques and the frameworks available to create, capture and codify, dissimilate and manage knowledge [18].

Management of knowledge resources is a key organizational tool to effectively leverage those resources to achieve the aims and objectives of the organization. KM must be an iterative process that transforms processes, information and intellectual assets into valuable resources for organizations [19-21]. It enables organizations to act to achieve success and realize the value of knowledge assets [22, 23].

Barton [8] found that when the information sought by an organization focuses doing one thing well to the exclusion of anything else stifles creativity or when the competitive environment changes, companies that continue only with what has worked in the past are often put at a disadvantage. She examined four activities that she found to be involved in the innovation process: integrated problem solving, implementation of new methodologies, experimentation, and the importing of know-how. These are all knowledge transfer activities that promote and contribute to creativity and innovation.

Implementing an appropriate knowledge strategy is argued important to firm’s competitive position. Grant [24] suggests that knowledge created within the firm is valuable as it has the characteristics of being unique, specific and tacitly held. Such knowledge cannot be imitated by competitors, and thus making it even more strategically valuable [25]. However, a number of studies have pointed out that organizations often do not demonstrate the importance of knowledge strategies and its implementation, while inherently practice knowledge management [26, 27]. To create the link between strategy and knowledge, organizations should articulate their strategic intent, identify the knowledge required to implement the stated strategy and compare this to their actual organizational knowledge needs [18, 28, 29]. This can help to identify the strategic knowledge gaps in the organization.

Hansen, Nohria and Tierney [3] differentiate between two approaches to knowledge strategy that organizations can pursue for effective knowledge management: codification and personalization. They argue either the primary approach of codification with the supporting approach of personalization in managing knowledge or vice versa should be implemented (Hansen, et al., 1999). This poses the key consideration for this research of whether organizations should decide upon codification and personalization options for managing knowledge to support innovation.

Hansen et al (1999) elaborated by suggesting attributes related to the business of the organization before embarking on a specific approach to knowledge strategy. The attributes include the organizations’ type of business economics and the type of employees (Hansen, et al., 1999; Porter, 1996). Codification as a knowledge strategy is concerned with capturing and storing knowledge in codified forms so that it can be readily accessed and used by others within the organization. On the other hand, a personalization knowledge strategy aims to facilitate and encourage the sharing of tacit knowledge from person to person [18, 21].

A related study by Scheepers, Venkitachalam, and Gibbs [30] argued that the Hansen et. al. [19] model is useful in deciding knowledge
management initiatives and as organizations’ business environment changes; their knowledge strategy needs to be evolved to enable effective use of knowledge. They have argued that a dominant focus on codification and personalization is only relevant at the early part of implementation.

As suggested earlier, innovation is seen to encompass all areas including product development and redevelopment, service innovation, innovation in organizational processes, managerial innovation and business model innovation. In each of these, the relative utilization of codification and personalization of knowledge will vary according to the circumstance of the organization. Therefore the tools and techniques will similarly vary. This raises the question as to who is responsible for setting the aims and objectives of the KM strategy that result in the choice between codification and personalization of knowledge.

2.2 Authority for KM

Current interpretations of knowledge management leadership [1, 27, 49] endow the leader with the responsibility to direct, to conduct or to guide functions in the implementation of a KM strategy. The leader will investigate the knowledge need of the organization, align it with the organizational strategy, plan, and execute a plan that will support the value proposition and mission of the organization. Leadership is acknowledged widely as being instrumental in the effective deployment of a knowledge management strategy in an organization [5, 26, 27]. Authority is executed to align KM with the value proposition and strategy of the organization and to review, approve and monitor KM investments in infrastructure and in the human knowledge sharing processes. KM authority centres the decision-making authority to deliver the expected benefits of the strategy [49, 51]. Strategy can then be delivered in a controlled manner, through the establishment of checks and balances in the mode of service delivery.

It is the goals and direction set by the authority figure that predicates the tools and techniques that might be used to address how the organization will transition from the ‘as is’ state to the ‘to be’ knowledge state.

The extant KM literature indicates a large range of both technological tools and a range of techniques to manage knowledge that are used by practitioners and discussed by theoreticians. The next section discusses prior survey research that investigates these KM tools and techniques, and the theoretical insights provided by that research.

2.3 Prior survey research: KM and innovation

Earlier research in the UK, Europe and in the USA has shown different understandings of the concept of KM and its implementation strategies. An examination of survey research indicates that most have been undertaken in the corporate sector in regions focusing on Europe, the United Kingdom and the United States. These surveys sought to establish the understandings of and the level of activity related to KM in those regions. Studies done by Parlby [31, 32], by the Next Generation Research Group [33] and by Davis et al [34] demonstrated that companies’ experience of the benefits of KM included better decision making, more rapid response times to key business issues and improved customer service delivery. A study by Hackett [35] indicates that where KM strategy is applied there are measurable business benefits to customer service, research and development, sales and marketing. A McKinsey survey [36] indicated that many officers in executive management regarded KM as primarily a technology-based management tool. However they demonstrate a perceptible business shift to creating a strategy for sharing knowledge to increase profitability by improving processes, products, and customer relations. Davis [34] found most described knowledge as key to the competitive advantage of their organization, however most KM strategies were focussed on technologies rather than people.

Darroch and McNaughton [37] demonstrated that the acquisition of knowledge resources and response to those resources are more important for innovation than the dissemination of knowledge. However this approach must be contextualized into 2012 in that most current KM strategies pursue a ‘knowledge pull’ rather than a ‘knowledge push’ approach to dissemination. Subsequent discussion of that data found implementation of KM strategies has a positive effect on leveraging knowledge resources with consequential positive impacts on firm innovation and performance [38]. In an investigation of knowledge flow between multinational corporations and subsidiary company performance it was found that KM practices positively impact on product innovation through the sharing of codified and tacit knowledge [39]. Chen and Huang [40] found that strategic Human Resources practices have a positive relationship with KM capacities that in turn has a positive effect on innovation, but do not take into account the Information Systems aspects of this support.

We find some evidence of survey research into KM that focuses on innovation only in the last three years: Tamsin and Woods [41] found KM has a highly significant influence on firm innovation activity in Malaysia. Others investigated knowledge management as an influence on innovation [42-45] and the influence of executive management as a contributing factor to the efficacy of innovation [46].
There is no global evidence of the goals of implementing KM that seek to explicate the importance of innovation in products and services, nor of the significance of that goal among others. Finally there is no found evidence of the KM tools and techniques employed by practitioners to support innovation that might lend itself to theoretical analysis.

Knowledge and its management is evidently a vital issue for innovation management therefore, several research questions arise:

a) Is there evidence of the importance of innovation in products and services is a goal of implementing KM?

b) What is the significance of that goal among other goals of KM?

c) Who sets this KM goal?

d) What are the KM tools use to support innovation?

e) What are the KM techniques undertaken to support innovation?

We now present the reader with research design and method, and provide survey results that demonstrate the supportive impact of KM on innovation in organizations, and the tools and techniques used when innovation is the focus of the KM endeavor.

3. Research design

The research design describes a questionnaire grounded in the theoretical KM literature and that was adapted from previously validated survey research designed and used in the European Union and was subsequently again used twice in a longitudinal study of the understanding and uptake of KM in Australia [47, 48]. Instrument adaptation was informed by constructs developed through related case study data collection [49-51].

This research was directed to Knowledge Officers at all levels in public and private companies, and government, semi government and not-for-profit organizations. The survey was conducted as an anonymous web-based survey. The data was collected using nine online closed KM discussion forums and list-servs. A total Distribution lists included members from ‘blue chip’ corporations, SME, government and not-for-profit institutions. Limitations of using this frame to obtain respondents can include biased responses, the representativeness of population and possible low response rate. Specifically, members of such discussion boards have a personal interest in KM related concepts; therefore they may answer differently to respondents who do not. Due to the email method of subject recruitment this sample cannot be said to be representative of all organizations or of the opinion of all KM practitioners and does not represent the population [52].

Sampling issues are the same for internet and paper based surveys although with the internet it is more difficult to verify [60]. There is a legitimate problem in the use of volunteers from the internet. The researchers counter non-response bias in that the estimate of the response rate from the nine discussion groups gives a total population pool of 5500. The experience of the researchers also indicates that there is very large overlap of memberships between discussion groups. Many members’ email addresses regularly appear in postings on up to three groups on a weekly basis. This suggests that the overlap may be in the order of up to 25% with a total sample size being closer to 4125. This being the case then the response of 218 individuals may equate to 5.3%. This is acknowledged, as a low response rate though the average response rate for an unsolicited survey with no personalisation of address and no follow up is 5% [52].

The survey data revealed broad openness of opinions. This openness – and in some cases blunt honesty - provides indicative trend data in an understanding of the current global approach to KM. It can be reasonably argued that the population “is a microcosm of the [KM] population” [53] and that these are therefore, both representative of the selected population, and accurate informants.

The survey was prefaced by an explanatory cover letter. The survey instrument comprised 22 multiple choice questions and three questions that required a text based response. Of these 13 multiple choice questions collect organizational data, and nine multiple choice questions collect demographic data. The sections comprised knowledge management definitions, the tools and techniques in the management of knowledge as an asset, cultural aspects of knowledge management, knowledge use in the future and obstacles to its management, structural mechanisms that support the development and implementation of KM strategies and the final section sought both organizational and individual demographic information.

The respondents were required in some questions to tick appropriate responses using attitude questions in the questionnaire. This allowed ranking of agreement to a statement relative to positive and negative endpoints of a five- point Likert scale. The questionnaire was timed to take approximately 14 minutes to complete. The results have been analyzed using the statistical software package SPSS 18.0 for Windows Analysis takes account of the possibility of the acquiescent response set where the respondent may develop a pattern of agreeing with all the items. Participants were offered the opportunity to be informed of the aggregate results of this research.
While Davenport [1] proposes that innovation is a broad concept and that there are five different types of innovation: product innovation, service innovation, process innovation, managerial innovation, and business model innovation. For the purpose of this survey it was decided to restrict the concept of innovation to the development of new products and services. The rationale for this was that process, managerial, and business model innovation can be regarded as incremental improvements, as managerial exercises or as strategic processes. These factors may have increased the uncertainty of respondents – and diminished rates of completion of the survey.

In the next section, we present the results of the survey and demonstrate Strategic alignment of KM programs through governance. Respondents came from 34 countries across every continent indicating that KM is true a widely practiced business activity. The first section of the survey deals with the respondent’s definition of KM and issues relating to KM strategies contributing to the achievement of business goals. Following questions sought data to establish Table 1 below indicates the even distribution of organizations by, by organizational constitution and by size of organization to indicate the representative nature of the sample.

### 4. Research Findings

Respondents came from 34 countries with representation from every continent indicating that KM is truly a widely practiced business activity. The first section of the survey deals with the respondent’s definition of KM and issues relating to KM strategies contributing to the achievement of business goals. Following questions sought data to establish Table 1 below indicates the even distribution of responses by constitution of the organization.

#### Table 1 Organization constitution

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Listed on a stock exchange</td>
<td>24.8%</td>
</tr>
<tr>
<td>Privately owned</td>
<td>34.5%</td>
</tr>
<tr>
<td>Government &amp; Semi-government sector</td>
<td>24.3%</td>
</tr>
<tr>
<td>Not-for Profit organization</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

Table 2 below indicates the distribution of responses by size of organization. There is an even balance of response between those organizations with greater than 1000 employees (48%), and those with fewer than 1000 employees (52%) with the concerns of these found to differ [54-56].

#### Table 2 Organization size

<table>
<thead>
<tr>
<th>Employee Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 50 employees</td>
<td>19%</td>
</tr>
<tr>
<td>50 – 99 employees</td>
<td>11%</td>
</tr>
<tr>
<td>100 – 499 employees</td>
<td>11%</td>
</tr>
<tr>
<td>500 – 1000 employees</td>
<td>11%</td>
</tr>
<tr>
<td>More than 1000 employees</td>
<td>48%</td>
</tr>
</tbody>
</table>

The responses as shown in Table 3 below, defining an organization’s understanding of KM indicated a strong trend of understanding KM as a business focused approach that comprises the whole collection of processes that govern the creation, dissemination and utilization of knowledge to fulfill organizational objectives.

This definition clearly separates respondents who see KM as being the capability to from those who have a more strategic approach to the utility of organizational KM. The other options offered were: about intellectual assets, and as a technological concept. Only four percent of respondents chose not to define that understanding.

#### Table 3 Defining KM

<table>
<thead>
<tr>
<th>Definition of KM</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business focused – the creation dissemination &amp; utilization of knowledge to fulfill org. objectives</td>
<td>49.5%</td>
</tr>
<tr>
<td>The capability to create store retrieve and to apply knowledge</td>
<td>32.8%</td>
</tr>
<tr>
<td>The use of IT to capture data and information to manage knowledge</td>
<td>11.3%</td>
</tr>
<tr>
<td>Intellectual assets – documents and information bases</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Correlation was done to test for significance of the variable “We implement KM strategies to develop new products and services” against other variables in the survey. Those variables that showed significant two tailed correlations are shown in Table 4 below.

#### Table 4 Correlation n=218 (two-tailed)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining competitive advantage</td>
<td>.305**</td>
<td>0</td>
</tr>
<tr>
<td>Growing revenue</td>
<td>.264**</td>
<td>0</td>
</tr>
<tr>
<td>Growing profits</td>
<td>.174**</td>
<td>0.01</td>
</tr>
<tr>
<td>Improving market share</td>
<td>.305**</td>
<td>0</td>
</tr>
<tr>
<td>Instigating change</td>
<td>.243**</td>
<td>0</td>
</tr>
<tr>
<td>Identifying new markets</td>
<td>.355**</td>
<td>0</td>
</tr>
<tr>
<td>KM program specifically designed to achieve business goals</td>
<td>.166*</td>
<td>0.014</td>
</tr>
<tr>
<td>Authority entity</td>
<td>.163*</td>
<td>0.034</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

In Table 4 we find that the highest priority for organizations in developing new products and services is: leveraging knowledge to identify new markets, for competitive advantage and for growing revenue. In the context of competitive forces of a global market, these can also be suggested to be the outcome of incremental innovation rather than the specific development of new products and services.

Of further interest is the significant correlation between the priority for organizations in developing new products and services with strategic alignment of the KM program with business goals, and the person or persons that has authority over the KM program.

Below we show descriptive statistics for these variables. Figures 1 and 2 show the utilization of KM techniques and tools. These tools and techniques were gathered from the extant KM literature and were listed for respondents to mark as employed or otherwise. Respondents were also offered the opportunity to specify ‘other’ with a free text box to do so.
Of the KM techniques mentoring is used by almost 70% of these organizations, followed by facilitated networking. These two strategies are specifically aimed to increase the transfer of tacit knowledge through personalization of that knowledge [57]. The least used is narrative [58, 59] which may be due in part to the training required to promote and to elicit narrative knowledge. Surprisingly organizational learning is also a lesser used technique.

Figure 1 Techniques used to support innovation

Figure 2 below shows the range of tools used with video-conferencing being the most heavily used (77%), then in descending order: search and retrieval agents (62%), wikis (55%) and portals (51%).

It is noted that the respondents were able to select as many of each of these as reflected KM practice in their organizations. Therefore the percentage of each variable reflects the cross-tabulation of each technique or tool variable across all the cases indicating that development of new products and services was a key motivation for the development and implementation of KM programs of strategies.

Figure 2 Tools used to support innovation

Of interest in Figure 3 below is a comparison of the uptake of the same tools and techniques against the whole population. We see that while Peer-to-peer knowledge sharing and Communities of Practice, are used approximately 10% less than the average, organizational learning is 25% less used by the organizations. Other techniques including mentoring (25% more) facilitated networking (20%) and knowledge brokers (20%) are much more heavily used.

Figure 3 Comparison of techniques used: innovation / overall response rate

In contrast we find a close parallel between use patterns for the whole cohort and those who utilize KM for innovation in products and services.

Figure 4 Comparison of tools used: innovation / overall response rate

The other significant correlation shown in Table 1 was the relationship between KM for the development of new products and services with the variable of authority or governance entity over the development and implementation of the KM strategy. Of those, 78% had a nominated person or persons who had ultimate authority over the strategy. In this we can see that a further 16% had no-one responsible while 6% did not answer.

Figure 5 Authority entity
Figure 6 below gives further detail in the correlation about the relationship between KM for the development of new products and services with the variable of authority or governance entity over the development and implementation of the KM strategy. These are compared with the overall figures for the total cohort of respondents.

**Figure 6 Comparison of authority entity**

Of those organizations that had a nominated person or persons who had ultimate authority over the strategy we find that 27% of these strategies were authorized by a Chief Knowledge Officer (or similar), 32.5% were authorized by a CEO or Managing Director, and in equal figures 14% were authorized by a stakeholder group or a Chief Information Officer. Very few of those KM programs had no authority entity with fewer being led by the Director of Human Resources or by a Consultant.

Of specific interest is the variance of 32% compared to 27% being a 5% higher involvement in KM by the CEO or Managing director as entity who has authority in those organizations that focus on innovation by compared to the total response rate. It is also of interest that compared to the total response rate there is a similar difference but with fewer from the innovation group who have no-one in control.

5. Discussion

We find that there are several significant factors operating in organizational motivation to invest in KM. This research has identified these as: improving market share, identification of new markets, development of new product/services, improving efficiency and effectiveness, instigating change and increasing profit. The results demonstrate that innovation in the development of new products and services is seen as highly important. It is clear motivation for investing in the staff and infrastructural resources to leverage organizational knowledge. The variable ‘instigating change’ may be interpreted by some as within the category of business process innovation or management innovation [1] however this may be an overly broad interpretation and in the absence of evidence, it is advised to regard this idea cautiously.

On the premise that one size does not fit all in the selection of KM tools and techniques for implementation in an organization [3, 4, 17] and that this is a question often raised by practitioners at meetings and in the blogosphere we suggest that specific utility lies in understanding the operationalization of these in KM.

We find that the simple descriptive recount of the tools and techniques used for innovation support is of initial interest. Among the tools video-conferencing is the tool most heavily used (67%), followed by search and retrieval agents (62%), wikis (55%) and portals (51%). However, a more interesting fact is revealed when we compare the use of tools for innovation against the general population in this research. In the both instances we find that Intranets are the most frequently used tools while expert systems are used least in KM when the aim of that strategy is to support innovation. Utilization patterns are parallel although a slightly higher level of usage of all tools is reported by the innovators. The single exception is the use of Portals where the deployment is the same. There is no apparent reason and while it is possible to make general speculations we suggest that this factor is worthy of further research.

Of greater interest is the variance evident in comparing KM techniques used by organizations that are innovation oriented against the overall population of respondents.

Innovators use the following techniques more: mentoring; storytelling; after action reviews; facilitated networking; Social Network Analysis; strategic information management; strategies to protect IP; and knowledge brokers. The overall population reported greater use of organizational learning programs, communities of practice – both face to face and virtual, and peer-to-peer knowledge sharing.

It is possible to segment these into types. Mentoring, storytelling and after action reviews are instances in which an experienced knowledge worker shares knowledge and judgments after but not during knowledge creation. This is so even with mentoring as this is supervised activity from senior knowledge worker to a junior and is unidirectional knowledge transmission.

In contrast facilitated networking; Social Network Analysis; strategic information management; strategies to protect IP; and knowledge brokers are techniques that are used by others to support knowledge workers but which the knowledge workers themselves do not directly share what they know.

An examination of the KM techniques reported as used more by the overall population finds that communities of practice – both face to face and virtual, and peer-to-peer knowledge sharing are
techniques intended for use where people share and generate knowledge collaboratively. Organizational learning programs are far less used by innovators. This was a particularly unexpected finding but supports the findings of Basadur and Gelade [46] who suggest that these types of techniques require high levels of trust “because people fear they have to perfect their idea before they will share their project” [46].

We have found a significant correlation between the priority for organizations in developing new products and services, with strategic alignment of the KM program, and the person or persons that has authority over the KM program. It is that person or persons who sets the KM goal of innovation. In figures 5 and 6 above we find that 78% of innovators have someone who authorizes KM activity. There appears to be little difference between the innovator group and the whole respondent population although some small variances can be noted.

6. Conclusions

This paper has presented a picture if KM practices to support innovation across 34 countries, representing every continent.

It has identified that those organizations understand KM as a business focused process for the creation, dissemination and utilization of knowledge to fulfill organizational aims and objectives. That is to say that KM is a strategic organizational means to enable effective leveraging of organizational knowledge resources for innovation.

It has provided clear evidence that the support of innovation in products and services is a significant and strategic goal for many organizations implementing KM. It clearly demonstrates the significance of innovation as a goal among other reported goals. We find clear evidence of the importance of innovation in products and services is a goal of implementing KM. This is a significant goal among the other goals of KM. We find that the majority of these strategies were authorized, and goals set by a Chief Knowledge Officer (or similar), or by a CEO or Managing Director.

This research provides evidence of the KM tools used and techniques undertaken to support innovation, the variations in practices and the consistency in tools with other reported patterns of the survey cohort as a whole.

This study has some limitations. The first limitation is the possibly due to self-selection behaviors of those who chose to participate against those who did not. As such this survey can only be said to be indicative trend data. The second limitation is that despite the careful design of the survey instrument it is acknowledged that common method variance may be possible as this study uses self-report data. Since this study has examined responses from many countries from all continents, it is assumed that no cultural limitations exist in this data.

7. References