Review on the KM Applications in Public Organisations

Paul McEvoy, Mohamed AF Ragab and Amr Arisha
3S Group - College of Business, Dublin Institute of Technology (DIT), Ireland
paul.mcevoy@dit.ie
mohamed.ragab@mydit.ie
amr.arisha@dit.ie

Abstract: The rise in awareness of knowledge management as a viable organisational resource and potential source of competitive advantage has been the subject of a myriad of research to date. The phenomenon covers a multitude of disciplines, roles and procedures, and its subjectivity has at times mitigated its potential for pertinent study. Add to this mix, the public sector, which exhibits unusual, specific, bureaucratic and insular hierarchies which can make it difficult to assess it from a research perspective, and a pertinent case can be made for investigating the process of implementing knowledge management initiatives in this area.

Today's public organisations are confronted with considerable challenges in the dynamic knowledge economy and continuously adapt to shifts in societal needs, behaviour, and expectations. To keep pace with global trends and new demands, public sector organisations have to embrace new paradigms that place the management of intangible assets at the core of their strategies. Recognising the vital role of knowledge resources in driving organisations can lead to better performance. The idiosyncratic nature of governmental institutions creates peculiar barriers for attempts to manage knowledge within the public domain. Public organisations tend to be highly bureaucratic and cloistered in rigid hierarchies which require knowledge management (KM) strategies that are able to address their specific context, and equally consider their unique cultural and legal implications.

The purpose of this paper is to present an inclusive literature review of the current state of KM research in the public sector in order to further research. An extensive review collated KM articles that have interest in public organisations during the last number of years. Initial findings of this research indicate that KM in the public sector is relatively under-researched compared with its private sector counterpart. Despite the existing research that has been undertaken, more efforts are required towards the development of applied frameworks to support public KM initiatives. Inducing culture changes in public organisations and introducing mechanisms of accountability have also been revealed as imperative issues of importance in the context of KM. From an application perspective, most studies have been conducted within the education and healthcare organisations, with a dearth of research in certain important government departments such as the Police and Army forces.

The purpose of this paper is to highlight the level of research into KM in the public sector and assess the benefits of taxonomising the literature. This will offer significant new insights into public sector literature and will benefit future researchers in the field. The historically dichotomous roles of public and private sector research present a unique case for reviewing the nuances of public sector KM and investigating whether there is a case for unilateral supposition of the public sector and its unique nuances and if so, is it fortuitous for this to continue.

A total of 3000 articles published in peer reviewed journals over selected time periods have been analysed for content pertaining to public sector knowledge management. From this analysis a total of 150 papers have been selected for their direct relevance to public sector knowledge management.

There are viable areas of demarcation in public sector literature, and these serve to illustrate a lack of research in some crucial areas, such as the emergency services and the military. The research also suggests that efforts to marry the principals of private sector KM to the public sector are difficult as the uniqueness of public sector culture and orientation makes KM reform challenging.

Keywords: KM, Public Sector, Literature Review

1. Introduction

In terms of management, modern organisations have come through an ordered if somewhat stately progression in the last one hundred years. From the industrial / scientific era at the turn of the century championed by Taylor, Gantt and the Gilbreths, through to the humanist revolution in the middle of the century spurred by Mayo and Mc Gregor, and on to the competitive strategy era, where Porter, Ansoff, Drucker, Prusak and Henderson have all sought to bring organisational direction from an industrial context to

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an information and knowledge one. The bias in today's organisations is now firmly set towards the currency of consultation, information and knowledge, where retaining knowledge and managing it is now a critical organisational issue. (Chen, *et al.,* 2002). Knowledge has been recognised as an increasingly viable organisational attribute and there has been an exponential increase in research in the subject over the past number of years (Ragab & Arisha, 2013). Research in this area has resulted in the recognition of knowledge as a commodity (Abou-Zeid, 2002), a central economic resource (Anantatmula, 2007), and a key organisational asset (Agarwal & Islam, 2015). Knowledge has also been linked to organisational advancement and has been heralded as a key dynamic for organisational success (Anantatmula & Kanungo, 2010). In today's Knowledge Economy, knowledge is envisaged as a key organisational attribute that must be managed in order to sustain competitiveness and drive organisational performance (Abdullah & Date, 2009).

Knowledge has also been described as a mix of experiences, intuition, and insight which can assist an organisation in inculcating, codifying and utilising information effectively (Davenport, et.al), the most important facet of organisational productivity (Armistead & Meakins, 2007a), and a potential measure of organisational self worth (Huang, et.al, 2011). Knowledge has also been mentioned as a measure of organisational fluidity, labelled "knowing in action"(Rix & Lièvre, 2008), and as such has been synonymous with Intellectual capital. However, research has also indicated that to classify knowledge can arbitrate it, and this is may be counter-productive as it is subjective, and specific to individual organisational and managerial requirement. (Spender, 2006). This has been evidenced in the dualistic convergence of knowledge and organisational learning, which has led to the rise of communities of practice which attempt to objectify knowledge rather than codify it (Roberts, 2015).

As a result of the inculcation of knowledge into organisational consciousness, the increasing attraction of the "knowledge economy", has, almost by inference required the presence of people who are able to manage knowledge (Seleim & Khalil, 2011) and its collective, which typically resides in organisational employees. (Chawla & Joshi, 2010a). This can be difficult to accomplish as the standard management metrics of motivation, planning, delegation, and organising have to be present in order to ensure that knowledge is properly maximised and competitive advantage is increased (Jain & Jeppesen, 2013). KM is also crucial when attempting to ensure that the knowledge gained is retained in the organisation when employees leave, retire, transfer, or resign. (Ragab & Arisha, 2013). The exponential rise in KM publications in the past number of years has reflected the growing interest and importance of the KM field, with over 11 ranked KM journals affiliated to the subject representing researchers from over 1,500 institutions over the past 15 years (Serenko & Bontis, 2013).

1.1 The public sector dimension

Public administration is an essential element in any nation, principally because it has a substantial effect on societal welfare and prosperity. As it is the conduit for governmental bureaucratic decision-making, its success or failure can effectively determine exchequer viability (Wiig, 2002). Governmental organisations exhibit tendencies towards unusual and bureaucratic cultures which create peculiar challenges that confront the introduction of new management concepts and change initiatives such as KM. Accordingly, it is noted that the majority of KM research has tended to be oriented towards private sector organisations, with relatively little investigation into the public sector (Syed-Ikhsan & Rowland, 2004). This is due to the relatively insular nature of public sector organisations which has somewhat divergent reporting parameters, goal setting, and more bureaucratic structural rigidity than its private sector counterparts (O'Riordan, 2005). Differences between the public and private sector mitigate the effective adoption of KM practices from one sector to the other, due to the uniqueness of the public sector. In addition to the political and legislative boundaries that exist in most public sector contexts (Cong & Pandya, 2003a), public organisations exhibit greater foci of control than their private sector counterparts, and are subject to ongoing peripheral scrutiny by way of government mandates and public expectations (Chawla & Joshi, 2010b). The public sector has therefore a lower number of research contributions investigating the identification, valuation, and management of knowledge resources within the public domain (Garlatti *et al.,* 2014).

It is noted however, that the public landscape is changing as public organisations confront increasing pressure to implement reforms and enhance their efficiency and effectiveness (O'Riordan, 2005). New public management, for example, is attempting to bridge the gap between public and private sector accountability and performance measurement (PM) by applying private sector models to the public sector, such as de-bureaucratisation (Siddiquee, 2010). Given these changing contexts, there is a trend within the public sector

towards the adoption of management concepts and models applied in private organisations in a number of domains such as Operations Management, KM and PM. An example of the latter is the implementation of the Balanced Scorecard, a renowned KM model, in governmental institutions (Northcott, 2012).

2. Methodology

This study aims to categorise research in the public domain, highlight major contributions, and present opportunities for future research in KM for Public organisations. The literature review encompassed KM studies pertaining to the public sector published in leading KM journals in addition to relevant papers addressing KM available in public sector administration publications. The process for this research was subject to narrative review, (Educational Research Review,), which allowed an evaluation of the proposed taxonomies postulated, and was also influenced by research synthesis which allowed for direct comparison between the various facets of public sector literature to be compared through the process of induction (Tranfield *et al.,* 2003).

The focus of this analysis is to identify trends and develop iterative taxonomic frameworks within which the literature can be analysed and themed appropriately. Structured literature reviews typically have defined stages and iteratively progress through the development of a research question, the definition of protocols, content selection, coding and analysis (Dumay, *et al.,* 2015), and the objective in this case is to present a classification of public sector KM literature based on predominant themes (Tranfield *et al.,* 2003).
This paper is also predicated on the fact that growing debate and research on the public sector is contrasted by the limited number of publications available, which gives rise to the need for a simple but effective taxonomic grouping to aid future research (Garlatti et al., 2014).

An initial research plan was outlined to determine the research scope and the boundaries of the review. Criteria for inclusion were peer-reviewed journal articles retrieved from seven academic journals (Table 1) and published during the period of 2000 to 2015. Pertinent conference articles were also analysed (Table 2) Non-academic research and publications in other languages than English were not included. Database search used the general keywords of “knowledge management” and “public sector” simultaneously. In total, this study includes more than 130 papers of which the majority are peer-reviewed journal articles. Articles were analysed thematically with the aim of classifying the literature into clusters. An Inductive approach was used to classify articles and was not based on a predefined classification (Crilly, *et al.,* 2010). As the review iteratively progressed, the authors identified literature sub-domains and classified each paper under a certain category according to its content and predominant theme. The objective was to elicit trends in publications and develop a categorisation through which current public sector literature can be envisaged. The historical trend of public sector KM publications is as shown in Figure 1.

Figure 1: KM Publication Trends

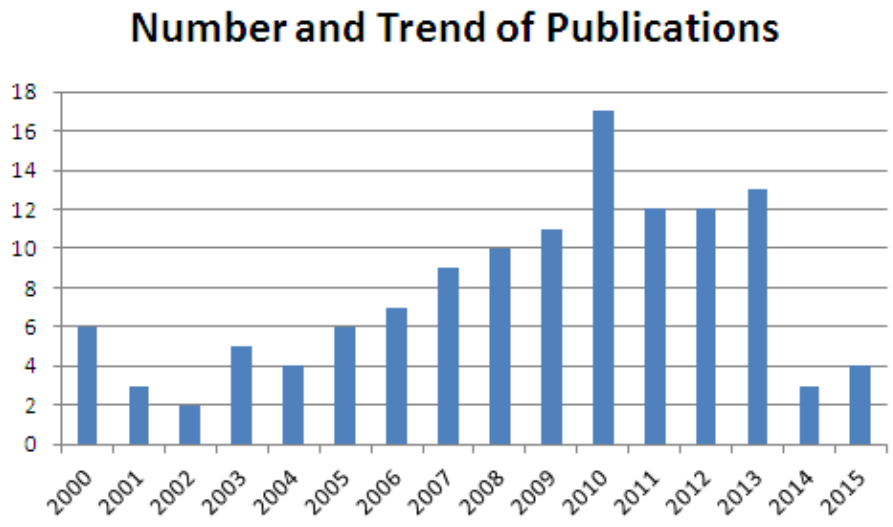

Table 1: Journals included in the Literature Review

	Journal Titles	Initials	Publisher
1	Journal of Knowledge Management	JKM	Emerald Group
2	Journal of Knowledge Management Practice	JKMP	Leadership Alliance
3	Knowledge Management Research and Practice	KMRP	Palgrave Macmillan
4	Electronic Journal of Knowledge Management	EJKM	Academic Conferences Ltd.
5	International Journal of Public Sector Management	IJPSM	Emerald Group
6	Public Administration Review	PAR	Wiley Publishing
7	Journal of Information and Knowledge Management Systems	JIKMS	Emerald Group

Table 2: Conference Titles included in the Literature Review

	Conference Titles
1	International Forum on Knowledge Asset Dynamics
2	European Conference of Knowledge Management
3	The European Conference on Information Management
4	The International Conference on IC & KM
5	The international conference on IC KM and Management and Organisational Learning

3. Literature Review

The outcome of the literature analysis process led to the categorisation of public sector KM research into five distinct types of studies (Figure 1).

Figure 1: Classification of Literature

Classification	NUMBER OF PAPERS	% REPRESENTATION OF OVERALL ANALYSED PAPERS
Descriptive	70	51.09%
Prescriptive Modelling	30	21.90%
Knowledge Sharing	19	13.87%
Technology	10	6.57%
Success Factors	9	6.57%

3.1 Descriptive Studies

The first genre of articles identified in the literature include studies which describe the current state of KM in particular public sector organisations, whether effective or lacking, without proposing specific corrective actions. Such studies tend to be observational rather than interventional and aim to report the *status quo* of the KM in a particular public administration context. Descriptive studies are primarily designed to capture the spread of specific variables. They generally do not crossover or impinge on other hypotheses.(Grimes & Schulz, 2002), but they can be categorised by specific research selections. These can include but are not limited to the style of the study that is being undertaken, the specific subject and the types of data that are being collected (Blessing, *et al.,* 1998). Descriptive studies of a qualitative nature intend to bring to the reader a summary of the types of data under scrutiny, and they are particular in their nature as they attempt to rationalise particular techniques and styles of data collection such as taxonomic structures (Sandelowski, 2000). The literature in this category was chosen as it represents public sector KM research that uncovers and investigates specific traits or examples of change within public sector KM. Public sector governmental mandates necessitate derivation of set policy, procedures and departmental boundaries. As a result of this, its culture is recognised as a barrier for KM implementation (Abdullah & Date, 2009). It has also been suggested that budget restraints form a significant barrier to the adoption of KM in the public sector, and give rise to insular cultures which have to be overcome in order to add value to KM implementation (Nawakda, *et al.,* 2008).

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Descriptive research also plays a vital role in highlighting particular trends and reducing confusion with regard to role KM has to play in public administrations (Pietrantonio, 2007). One of the major challenges facing the public sector today is the issue of employee loss. Whilst not specific to the public sector, the fact that knowledge as an organisational asset has to be protected is of critical importance. This protection stems from the requirement to protect intellectual assets and capital (Choo and Bontis, 2002). The knowledge (particularly tacit), that is synonymous with personal experience leaves the organisation with the retirement or transfer of personnel. For example, the U.S public health service often faces a shortage of expert personnel (Morgan, 2005). One of the key challenges for the modern public sector is how to capture knowledge in an ageing workforce (P. Jain, 2009), and how to retain the intangible / tacit attributes that knowledge has once attempts are made to articulate it (Boateng, 2008).

3.2 Success Factors

Within another group of studies, authors attempt to propose managerial attributes and organisational factors which they deem essential for KM to be successful in the public sector. Often referred to as “success factors” (Cong, *et al.,* 2007) or “KM facilitators” (Syed-Ikhsan & Rowland, 2004c)., they are either theorised by authors based on their own view (Bučková, 2015), or learned from past incidents of KM initiatives implemented in public sector companies (Koolmees, *et al.,* 2008).

These “success factors” are unique in that they suggest or show how progressive KM initiatives are in the public sector and how cultural difficulties can be addressed, primarily by trying to induce cultural change conducive to knowledge sharing (Girard & McIntyre, 2010), or promoting the idea of learning collaboratively (Koolmees *et al.*, 2008), While these metrics are applicable to the broader KM knowledge structure, it is interesting to note that this research attempts to directly compare public sector and private sector performance and establish public sector performance based on leadership, culture, technology and knowledge transfer (Chawla & Joshi, 2010a). Research has also attempted to utilise empirically viable metrics in the public sector such as the Balanced Scorecard, in order to appraise its current strategic management effectiveness (Alhamoudi, 2001), however, the very success factors that some would suggest are the antecedents of KM in the public sector for example, strategy, structure and culture, are the areas that need to be nurtured in order for Km to be a success (Zack, 1999). It is also suggested that *combination* of factors need to be present in order to increase the likelihood of KM initiatives succeeding (Marwick, 2001), and technology is suggested as a

concurrent rather than individual success factor, in KM success (Mohayidin, *et al.,* 2007) Based on the conclusions of several authors, key success factors for KM in the public sector are summarised in Table 3:

Table 3: Examples of Success Factors

Author	Public Sector KM Success Factors
Hernandez et al. (2015)	Collaborative Culture, ICT Infrastructure, Alignment with Business Strategy
Salwa & Alhamoudi (2011)	Knowledge Management Strategies Balanced Systems in Public Sector
Girard & McIntyre (2010)	Culture, Technology, Leadership, Business Processes, Measurement
Chawla & Joshi (2010)	Human Resource Planning, Authority, and Accountability
Koolmees et al (2008)	Mapping organisational progress using knowledge "scans" comprising the collation, recording, capture distribution of knowledge
Cong et al (2007)	Knowledge Identification, Capture and Transfer
O'Riordan (2005)	Establishing KM Milestones, Demonstrating benefits, Providing incentives

3.3 Knowledge Sharing

Knowledge Sharing can be defined as "a the transfer of knowledge from a source to a recipient" (Berends, 2005). The transfer of knowledge once generated is of paramount importance to organisational knowledge management (Monavvarian & Kasaei, 2007), and it is more effective to have employees transfer knowledge voluntarily rather than bureaucratically (Armistead & Meakins, 2007b). This concept is perhaps the most important issue in successful knowledge management, as knowledge exchange is essential for effectiveness (T. H. Davenport & Prusak, 1998) and the effective codification of this exchange is vital in building successful knowledge repositories for future sharing and collaboration (Cress & Martin, 2006). It also enables dissemination of best practices and leverages knowledge between different parts of the firm, ultimately improving overall organisational performance (Amayah, 2013). The sharing of knowledge is a vital part of the process of KM, and it is critically important in the public sector, because it has a client focus that places a specific emphasis on the continuous knowledge sharing required between public workers and the public (Gorry, 2008). A common challenge that emerges in the discussion of knowledge sharing is individuals' reluctance to share knowledge with others, due to a self serving bias stemming from the perception of knowledge as a source of power and unique value (Sohail & Daud, 2009). Knowledge sharing has been researched in terms of cultural diversity, individuals, and management in the public sector, and in this category, research has been carried out into areas such as the factors affecting individuals capacity to share knowledge in public sector organisations (Amayah, 2013), and the ability of extrinsic and intrinsic motivational factors to enhance knowledge sharing among managers, (Tangaraja, *et al.,* 2015). Research has also explored knowledge sharing barriers which impede the transfer of knowledge among employees due to either organisational or individual hindrances. The main challenges to successful knowledge sharing include lack of management recognition, few rewards for knowledge sharing behaviour and inadequate organisational IT systems. On a personal level, lack of time, interaction and poor communications skills were observed as the most prevalent obstacles to sharing knowledge (Sandhu, *et al.,* 2011).

3.4 Technology

The role of technology in the KM field is a complex one. The codification of knowledge can reverse its efficacy and bring it to an information state (Gau, 2011) which can belie its effectiveness. There is a symbiosis between KM and technology, which is based in the enabling effectiveness of I.T, as it facilitates communication, but does not necessarily promote it (Hendriks, 2009) Nevertheless, the use of technology as an enabling mechanism for knowledge dissemination is of vital importance for public sector organisations (Booth, 2000). For example, the emergence of e-government as a dominant paradigm in public sector reform has enabled new perspectives for knowledge and value creation (P. Jain, 2009). However, it is contended that without a knowledge sharing culture, technology will not be enough to stimulate knowledge flow (Syed-Ikhsan & Rowland, 2004b). Moreover, the appointment of Chief Knowledge Officers (CKM) in some organisations is seen as a positive step towards codifying knowledge effectively (P. Jain, 2009). Research into KM in the public sector with technology as a predominant theme has indicated that it has a multifaceted role to play in the generation, dissemination, and personalisation of knowledge (Pentland *et al.,* 2012). However, technology has to be accepted for it to be of value, particularly in the public sector where the provision of information as a service delivery entity has to be relevant to citizens. Acceptance and engagement with technology is vital for initiatives such as e-government to be successful (Cegarra-Navarro, *et al.,* 2013).

This review has discovered that there is a relatively small amount of public sector KM research with technology as a dominant theme. This may have its roots in the subjective nature of knowledge (Spender, 1998), as the objectivity of technology may mitigate against its popularity in the research. It has even been suggested that knowledge should be dichotomous from technology and be removed from the ICT domain where it is too often confused with information and data (Samiotis, *et al.,* n.d.). Nevertheless, there is a mandate for the public sector to provide information to its stakeholders and ICT has been shown to be the most effective catalyst for this to occur (Bučková, 2015), see Table 4.

Table 4: Technology

Author	Technology Initiatives
Navarro (2013)	The value of the extended framework of TAM (Technology Acceptance Model) in Electronic Government Services.
Pentland (2012)	Enabling integrated knowledge acquisition and management in health care teams
Chen (2011)	Health Care Revolution via the application of knowledge management and semantic technologies
Chawla & Joshi (2010)	Human Resource Planning, Authority, and Accountability
Priti Jain (2009)	Knowledge Management in E-Govt
Samiotis (2006)	KM for public administrations. Technical realisations of an enterprise attention management system
Booth (2000)	KM in the NHS. Half full or half empty?

3.5 Prescriptive Frameworks

In this cluster of publications, researchers adopt a practice-oriented approach and propose a number of prescriptive frameworks to guide the introduction of KM programs in public sectors organisations or models to evaluate the effectiveness of existing KM initiatives in achieving their objectives. Table 4 highlights a number of the prominent models developed by authors in this area of the literature. This classification includes the use of models, equations, or structured analysis to enhance public sector KM. Several authors argue that the impact of KM on public sector performance can be easier to evaluate if approached from a quantitative perspective (Bordoloi & Islam, 2012), and hence espouse quantitative metrics for KM performance outcomes (Chong, *et al.,* 2011). Research studies in the prescriptive category have used analytical and normative models for evaluating strategic business performance (Gooijer, 2000), and have attempted to inculcate the results of analysis into transforming public sector organisations through learning units (Sotirakou & Zeppou, 2004). Knowledge sharing has also increased as a result of successful research based around methodological programmed research into government departments (Zhang & Dawes, 2006). Further Examples of research in this category include the five enablers of change of the Inukshuk model (Girard & McIntyre, 2010), the training evaluation model used to analyse the Greek public sector (Sotirakou & Zeppou, 2004), and the adoption of the balanced scorecard model to assess KM performance (Alhamoudi, 2001). Although a number of models are put forward, more research is needed in this area to bridge the theory-practice gap between conceptual KM and actual implementation (Ragab and Arisha, 2013). See table 5 for examples of prescriptive frameworks.

Table 5: Examples of Prescriptive Frameworks

Author	Model
Salleh et.al. (2013)	A model comprising six learning factors and their conjectured relationships with tacit knowledge sharing was derived from the literature review of public finance practices.
De Angelis (2013)	KM Intelligence framework to identify influential environmental factors that can be used to guide a KM plan and development of public administrations worldwide.
Boté et.al. (2013)	Digital preservation and codification of knowledge in the UK health service
Navarro (2012)	Empirically tested model to explain the utilisation of telemedicine technologies and organisational learning and its relationship to e-knowledge.
Chawla & Joshi (2010)	Applies the KM Asset (KMAT) tool to appraise performance in the public sector.
Samara et. al. (2007)	Proposes a framework for assessing the value of teaching in the knowledge arena, specifically in healthcare.

Pietrantonio (2007)	Balanced Scorecard adoption in public administration in Italy to measure KM effectiveness.
Mercer et al. (2005)	KM framework for the public sector with emphasis on environmental risks.
Hurley & Green (2005)	Leavitt's model of organisational change is presented as a framework for effecting culture change.
Sotirakou & Zeppou (2004)	The "MATE" model: a strategic knowledge management technique on the chessboard of public-sector modernization
Lyons & Duxbory, (2003)	Employs factor analysis to measure work values and commitment in the public sector in a KM context.
Mir & Rahaman (2003)	Utilises Nonaka's SECI model in a case study to create a culture of KM sharing.
Cong & Pandya (2003)	Conceptual model for public sector km focusing on people, processes and technology.
De Gooijer (2000)	Designing a knowledge management performance framework
Parker & Bradley (2000)	Utilises the Competing Values Framework to assess culture in the Australian public sector

4. Classification by Application

Further taxonomic categorisation has been undertaken in order to explore the prevalence of KM research among different types of public organisations. It is clear that there is a strong research focus on KM in governmental departments such as ministries and regulatory bodies (Figure 2). This area is researched more than other types of public sector areas, primarily as a result of interest in introducing management reform to public administration at large (De Angelis, 2013). University education is well researched in the literature with knowledge sharing in universities being the predominant theme (Bratianu, *et al.,* 2010)(Gertner, *et al.,* 2011)(Sohail & Daud, 2009). KM in healthcare has also been represented with areas of research around patient safety (Currie, *et al.*, 2008), utilising knowledge in order to minimise knowledge loss and protect IC, (Morgan, 2005), and collaborative ventures to share knowledge the U.K health service (Bate & Robert, 2003). However, there is a dearth of research in the reported literature around the emergency services with a total of seven research articles discovered, (police and military), and "other" areas including postal and financial areas have yielded three research articles thus far.

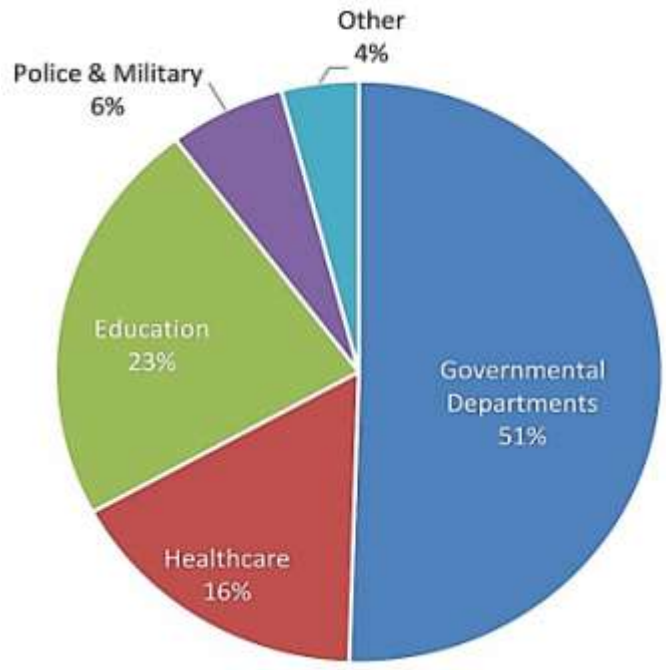

Figure 2: Classification of Literature by Industry

5. Discussion and Conclusion

Based on current state of KM research, Classifications have been adduced in order to discern the most popular areas of research in the public sector. As can be seen, there are areas within the public sector that are relatively under researched, such as studies providing applied models for the implementation of KM programmes in public institutions (Cong & Pandya, 2003b). The predominant area of public sector research is based around a holistic, descriptive view of the public sector. Given its insular nature, it is not surprising that some public sector research has adopted somewhat of a "spectator" stance. Technology as expected has received attention in the literature especially areas such as e-government, health and pedagogical reform. The critical importance of sharing knowledge was demonstrated in research addressing public sector communications (Gorry, 2008) and cultural values with an objective of enhanced effectiveness (Nawakda et al., 2008). Knowledge management applications in police, military forces and the postal services were least represented in reported publications. This can be due to the sensitivity of sharing or accessing data and the characteristics of these areas (i.e. bureaucratic, hierarchical and security conscious) Garlatti et al. (2014).

This study does have limitations. Firstly the literature review is ongoing and as research progresses, the results will evolve accordingly. The subjective and intangible nature of knowledge means that further research may reveal new and interesting trends that will impact on public sector performance. As the public sector evolves, its reporting structures and accountability will also evolve and future research may uncover further salient and relevant issues. It is also evident that the trend towards public sector KM research has declined in recent years, and this will require further research.

KM in the public sector is in its early stages, and academics are looking for clearer ways to marry the applications of private sector KM to the public sector, such as echoing private sector productivity and transparency (Boyle, 2006; Linna, *et al.,*2010). Nevertheless, the uniqueness of public sector service orientation has put it under increased scrutiny. Researchers have attempted to address this issue by looking closely at the preferences of public sector customers, (Alhamoudi, 2001), the application of new public management to empower customers, (Siddiquee, 2010), and user studies that have been conducted in order to design KM systems to improve government service (Cheuk 2010). Because of the diverse nature of the public sector, a "one size fits all" solution is not applicable, for example, knowledge management delivery in healthcare is subject to completely different parameters than pedagogical frameworks in education (Pentland et al., 2012).

Knowledge sharing in particular seems to be one of the areas that can be improved by creating awareness and understanding of its implications, particularly, knowledge loss. One of the ways to overcome this is to actively promote increased visibility and transparency of process (Mitre-Hernández, *et al.,* 2015). The enormous amount of Intellectual capital that resides in the public sector is also a cause for future research. In the area of healthcare particularly, the innovation capacity of hospitals has been shown to correlate directly with levels of innovation which are leveraged by knowledge (Santos-rodrigues, *et al.,* 2013). The public sector has also been adapting to increased competition and a drive for transparency, and KM has been shown to be a strong enabler of this drive for intensifying productivity (McAdam, 2000). Future research can examine differences in the characteristics of private and public organisations in their employees (Perry and Rainey, 1988), which might explain the resistance of public sector organisations to the adaptation of cultural characteristics generally associated with private sector organisations (Parker & Bradley, 2000). The current challenge for the public sector is to move beyond levels of isolated interventions and to develop a comprehensive strategy and approach in relation to knowledge management (O'Riordan 2005). It is also essential for it to overcome the cultural barriers that permeate its hierarchies by increasing teamwork, reducing bureaucratic decision making and increasing value management (Sandhu et al., 2011). With the advent of new public management and accountability, (Siddiquee, 2010), and the drive for cultural and efficiency changes, (Riege & Lindsay, 2006) tomorrow's public sector should be less of a mystery and more of an open transparent service which will benefit public interest.

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