CHAPTER 18

The Art of Managing Knowledge and Information

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ABSTRACT

It has been an environment of constant and rapid change and now managing information and knowledge is a key managerial skill. The direction of an organisation, the team's leadership and the making of the consequential decision cannot be based on the data collected, it is how the data is used that counts. This article provides a practical look at knowledge and information management, as it applies to a manager and a business leader. It differentiates between information and knowledge and explains why knowledge management and information management have become important for better decision making, higher efficiency, innovative solutions, organisational memory and competitive positioning; and enumerates the activities of knowledge management as creation, capture, organisation, sharing and application. It then suggests that people, their experience, the current organisational culture and their ethics of information handling are as important as the technology used to support them, as systems are empty without trust. The article concludes with a discussion of major challenges faced by organisations (information overload, resistance to change, capturing tacit knowledge, enforcing security and privacy) and the trajectory of tacit knowledge research. The common objective here is always as simple as it can be – the transformation of information into knowledge that is really useful for performance.

Keywords: Knowledge management; Information management; Tacit knowledge; Organisational learning; Decision support.

1.0 Introduction

Consider the quantity of information that reaches a manager in the course of a single working day: correspondence accumulating in an inbox, reports awaiting attention, dashboards presenting numerous metrics, and a range of digital platforms each competing for notice.

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The difficulty has been inverted within a generation. Where the problem was once one of locating information, it is now one of discriminating among a great deal of it, and of determining what actually matters among thousands of items that largely do not.

For anyone in management — whether a student seeking to understand business or a practitioner dealing with these questions daily — the ability to handle knowledge and information is no longer a desirable supplement to other skills but a condition of competence. Managers must assess situations quickly, decide soundly amid ambiguity, lead their teams effectively and address problems that admit of no obvious answer. This article examines knowledge and information management with an emphasis on practical application, and it treats the human dimension of the subject as central rather than incidental.

2.0 Distinguishing Knowledge from Information

Knowledge and information are frequently treated as interchangeable, and the conflation causes persistent confusion. The distinction is worth establishing clearly.

Information is the arrangement of data in such a way to make it meaningful. Information is sales figures, financial statements, customer feedback reports and market research. It is measurable, verifiable and available for use; it answers questions of what happened, how much, when (Ackoff, 1989).

The knowledge is another order of things. It is comprised of understanding, experience, skill and judgement: all that an individual learns over time through doing, learning from what they have learned. Knowledge is not just about what is and wasn't; it can provide an account of how and why things are, and a verdict on what is to come next.

It's easy to see the difference in a simple example. The information is that sales went down a certain percentage in a previous quarter. Knowledge is understanding why they've failed, be it because customer preferences have changed, another competitor offered an improved product or because the marketing proposition no longer wins over customers, and knowing what specific actions might turn the tide.

Knowledge management accordingly denotes the whole process of creating knowledge, storing it in a usable form, distributing it to those who require it and applying it to organisational purposes (Davenport & Prusak, 1998). It is not principally a matter of systems or databases. It is fundamentally a matter of people and of what they have learned.

3.0 Why the Management of Knowledge and Information Matters

The first benefit is improved decision-making. Where managers have access to reliable and relevant knowledge — as distinct from undifferentiated quantities of data —

their decisions improve. They act with greater confidence because they understand the context, with greater accuracy because the relevant information is before them, and with less time lost to reconsideration.

The second is efficiency. Considerable effort is wasted in most organisations when one person spends hours resolving a problem that a colleague elsewhere resolved the previous month, or when documents must be retrieved from old correspondence. A functioning knowledge management system removes much of this duplication, allowing people to find what they need, to learn from what has already been done and to direct their effort towards work that is genuinely new (Argote & Ingram, 2000).

The third is innovation and continuous improvement. New ideas seldom arise from nothing; they emerge as people exchange experience, test ideas against one another and build upon what already exists. Organisations that actively encourage the sharing of knowledge tend to be more innovative and more adaptable, learning faster and adjusting more readily when an approach proves unsuccessful (Nonaka, 1994).

The fourth is organisational memory. Every organisation contains experienced employees who understand how matters actually work — the substance of which appears in no manual. When they do leave, that understanding is at risk. By documenting practice, lessons learned and decisions about issues of significance, it is preserved and continuity is maintained from one staffing change to another.

Competitive position is the fifth. Well managed knowledge organisations learn faster than their competitors, are quicker to respond to changes in the market they operate in, and do not make the same mistakes twice. This can make a critical difference in fast moving industries (Grant, 1996).

4.0 The Constituent Elements of Knowledge Management

Knowledge management can be considered as five sequential activities in which each one of them has to be working, if the whole activity is to be working.

- **Knowledge creation.** Production of innovative ideas and solutions, via learning and training, direct experience and group interaction. This is encouraged by open communication and by making it a regular expectation for continued learning within the organisation. Innovation usually happens where people feel free to take half-conceived ideas forward and to ask questions without fear of being embarrassed.
- **Knowledge capture.** Useful material documented and reusability: Reports, manuals, procedures and digital records. What is so hard is that you have to capture it in such a way that it makes sense to a reader other than its author.

- **Knowledge organisation.** Specification of material (categorisation, indexing and structuring) to enable location when needed. Nothing is more frustrating than knowing that there is information out there that can't be found.
- **Knowledge sharing.** The sharing of knowledge and understanding in meetings, working together, with mentors and on the internet. This is often the most challenging part, because it requires trust, and also a culture that values sharing information instead of keeping it in oneself to leverage as an individual asset (Wenger, 1998).
- **Knowledge application.** The point where knowledge is put into practice to solve problems, enhance performances and create value. All of the above are essential but if knowledge is not put into practice, it is used for nothing.

5.0 Balancing People and Technology

Technology plainly has a substantial part to play. At the scale, storing and distributing a lot of information becomes impracticable without the use of databases, intranets, cloud storage, collaboration platforms, and more recently, AI (Alavi & Leidner, 2001). But it is important to understand that knowledge management is not a primarily technical challenge. It is a human one. Willingness to share what they know is determined by three components: Trust, Motivation, Leadership and Organisational Culture.

The benefit of the experience is simple. An organisation can have a great system in place and have members feel that they are not getting anything out of it because they don't trust each other, or sharing information is seen as a threat to their own security, or making mistakes is punished and keeping the knowledge is rewarded. There are situations where people share what they know when they feel respected, supported and are part of a shared enterprise. The benefit of the experience is simple. An organisation can have a great system in place and have members feel that they are not getting anything out of it because they don't trust each other, or sharing information is seen as a threat to their own security, or making mistakes is punished and keeping the knowledge is rewarded. There are situations where people share what they know when they feel respected, supported and are part of a shared enterprise.

6.0 The Principal Challenges

Knowledge management is easy to define but hard to do, and a number of challenges are common to organisations. Perhaps, the most important is information overload. Too much information can be worse than too little: If you're presented with more information than you can handle, you will not be able to identify what is important, and either turn a blind eye or invest a lot of time trying to evaluate it all. There's more than a

rhetorical challenge in differentiating a signal from noise. Change is a second.It's a second, resistance to change. Individuals get familiar with existing methods and asking them to embrace new systems, change their ways of working or start sharing knowledge when they have not before is a big ask. This resistance could be due to fear of looking like a fool, discomfort with technology, apprehension about decreased importance, or inertia.

In each instance it has to be taken up head on, typically by training, making it clear why the change is needed and demonstrating the benefit early on. Third, capturing tacit knowledge is difficult, especially. Tacit knowledge is knowledge that exists in the mind of the expert (intuition, the judgment that is applied when a problem is hard, things a practitioner knows after years of practice) (Polanyi, 1966). It is not easy to document it, since those who know it often can't really describe exactly what they know and how they know it; it is a pattern recognition that takes place largely outside of conscious awareness. A fourth concern is security and privacy, and as knowledge is digitized it becomes more and more important. Sensitive information should be secured, privacy requirements respected and sharing mechanisms implemented in a way that does not unintentionally release confidential information or open up weaknesses. Opening up versus securing data is not an easy proposition.

7.0 The Future of Knowledge Management

The management of knowledge and information is increasingly being shaped by further technological developments. Artificial Intelligence, machine learning and advanced analytics are already transforming the industry by analyzing vast amounts of information that humans simply cannot handle, and finding patterns that might otherwise go unnoticed. These systems can provide insight as work is done, predict trends, and aid in informed and quicker decision making. Ethical issues are increasingly gaining significance. Concerns about data privacy, transparency, algorithmic bias and responsible use of information will not go away – the more adept organisations can get at data collection and analysis, the more they can misuse it.

There will need to be a balance between the technologic advances and the ethical responsibility, not just for regulatory reasons, but for maintaining trust. The organisations that will succeed are the ones who will think about technology and keep people at the forefront of the process. They will use analytical tools as a supplement to human decision making, rather than a replacement; they will adhere to ethical principles even when expedience demands otherwise; they will invest in their people, for "knowledge finally resides in the individual minds, and it is created through human collaboration" (Senge, 2006).

8.0 Conclusion

The new science of information and knowledge is an art and a basic management competence. It consists in considerably more than the accumulation of data or the implementation of software. Those are things that matter, but what makes the difference is an understanding of how people work, what disposes them to share what they know, and how an environment can be set up in which learning and collaboration are really happening. In good hands, knowledge management can change an organisation. The right information is delivered to the right people at the right time, which improves decisions. Innovation progresses through the free flow of ideas and the accumulation of ideas that are developed upon. Solutions are not re-invented, increasing efficiency. And continuity is maintained, as understanding that is valuable doesn't vanish when people move on. Organisations that are very good at this integrate human insight and use the right technology.

They understand that systems and tools can enable, but are not solutions. They invest in cultivating trust and building relationships, in collaborating and co-creating and in establishing an organization that values and expects the exchange of knowledge, and they leverage technology to enhance and extend rather than replace human judgment and creativity. The closing statement of one proposition must be emphasized. Information is everywhere, knowledge is gained. A competent manager is better than an outstanding manager by his or her ability to transform information into knowledge which can then be put into action, to communicate that knowledge well, and to establish the environment where it can flourish and be circulated. In today's highly competitive and dynamic business landscape, that's not a strength — it's a requirement.

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