Abstract

This paper aims to examine knowledge management described in literature and investigate how it is managed and applied in organizations. In particular the research focuses on project knowledge management and how organizations turn into practice learning from experience in order to capture, share and save knowledge in time. Both failures and success stories are sources of new knowledge that can be lost if not captured and stored by those who have experienced a specific situation, and shared with all others who have worked on the project or will work on the future ones.

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1. Introduction

Individuals and organizations with no doubt learn from experience and in time gain more and more knowledge about themselves, about the way they work and about their customers. But is that just a natural process or can it be managed in a structured way in order to learn and share as much lessons as possible from every project or experience? Is it true that in today’s dynamic marketplace, and under continuous competitive pressure, organizations often tend to concentrate on moving faster from one project to another rather than worrying about their learning

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processes that require a lot of time and money? Do organizations believe in the improvements that they can accomplish in future initiatives by just stopping to reflect on past experiences?

Driven by these questions, the first part of this work aims to examine what are the benefits and success factors of knowledge management and in particular, how it applies to project management. The second part of this paper will then investigate how, in different case studies, companies act and learn from experience and if theory is put into practice.

2. Knowledge Management

2.1. What is Knowledge Management

Different authors have given different definitions to knowledge management (KM), and yet none of these definitions are completely accurate, nor are they completely inaccurate. The correct definition of KM changes from organization to organization and KM programs are typically tied to organizational objectives and are intended to achieve specific outcomes; these can include improved performance, competitive advantage innovation, lessons learnt transfer (for example between projects) and the general development of collaborative practices.

If we analyze the word “knowledge” we will find its origins in Latin where “know” derives from “noscere” and “ledge” may have originally meant “process” or “action”, and then knowledge can be seen as the “capacity for effective action”[1].

Knowledge management seeks to improve performance by leveraging and maintaining the present and future value of knowledge assets [2]. Creation, updating, availability, quality and use of knowledge have been recognized as an essential component of a proactively managed organization. The key concepts include converting data, organizational insight, experience and expertise into reusable and useful knowledge that is distributed and shared with the people who need it. If an organization manages knowledge successfully it will be able to use information and consult past experience that will be very useful, in some cases even critical, in doing a job better that it has been done in the past.

2.2. Why is Knowledge Management Important

Knowledge regarding markets, clients, processes, products, organizations, technology etc., that a business owns or should own and which enables its processes to add value and generate profits, is called knowledge assets [3]. Knowledge management is not only about managing these assets but also about managing the processes that act upon them and form the knowledge life cycle in an organization. Some basic questions to answer when defining KM are:

- What knowledge do we have and what knowledge do we need?
- Where does knowledge come from?
- How do we use and transfer knowledge?
- How do we save and re-use it?
- Who is responsible?

Identification and analysis of available and required knowledge, the related knowledge asset processes, and then the planning and control of all these activities, is very important for the fulfilment of organizational objectives and the gaining of competitive advantage. Knowledge management is in fact a critical element of successful process integration [4].

Very often one individual organization units repeat work that has been already done by other individuals or in other parts of the organization. This may cause not only loss of time and other resources, but may enhance serious negative consequences if we suppose for example, that the work that is being repeated is done in the wrong way each time that there is a specific situation. In order to avoid this happening, organizations define and implement different methods and practices of KM.
We can make a distinction, made by the majority of knowledge management practitioners: between tacit and explicit knowledge [5,10]. Tacit knowledge is usually subconscious, internalized, and the individual may or may not be aware of what he or she knows and how he or she accomplishes particular results. Tacit knowledge can be attained through dialogue, storytelling, and sharing of best practices and lessons learned. It usually is rooted in an individual's experiences, intuition, insight, judgment, and knowledge of organizational values. Individuals with tacit knowledge are usually considered to be experts within their organizations and frequently sought out for guidance and input. In this case it is very important for an organization and individuals to capture and codify such knowledge, in order to be aware of it and be able to share it with others. On the other hand, explicit knowledge is the one that can be more easily attained and is often expressed or documented in a formal, systematic manner - frequently in words and numbers, and individuals may communicate it to others easily. Examples include management directives, executive orders, policy manuals, meeting minutes, technical documentation and reference guides.

Another distinction in knowledge types might be done between the creation of "new knowledge" (in example, innovation) and the transfer of "established knowledge" within a group or organization. Or if we consider the object of the knowledge it can then be very various, like for example: management or operational expertise, technical know-how, R&D results and statistics, company procedures, lessons learnt from work books or other documents, etc.

A very interesting concept that helps understanding the importance of knowledge management is organizational memory [14]. The idea of organizational memory suggests that acquiring, storing, reuse and transfer of knowledge is very similar and functions more or less in the same way that does the human brain. This concept is based on the idea that organizations are learning continuously because of the dynamic and competitive marketplace, and if they don’t want to lose new knowledge they have to face the problem of elaborating new information and archiving the knowledge that they possess.

Organizational memory is located in individuals, technologies, organizational structures, organizational culture and even in all routine activities. The processes concerning acquisition and assimilation of knowledge depends on the efforts and the dynamics of these efforts made by the organization to capture new knowledge, by learning and sharing activities.

3. Applying Project Management to Knowledge Management

3.1. Project Management definition and general concepts

A project is a temporary effort to create a unique product or service, and has clearly defined starting and ending dates, a specific scope of work to be performed, a budget, and a specified level of performance to be achieved [7]. From the definition of a project we can see the first very important characteristics of a project: it is limited in time, so it’s temporary, and it is unique, what doesn’t mean that projects can’t be similar, but it means that no project is exactly the same as any other, because every project has a unique product or service that is created with available resources. According to this definition, every project represents an opportunity to acquire new knowledge for individuals, and for the organization.

On the other hand, project management methodologies usually define standard project phases, processes, templates or actions that are repeated in the course of different projects. Documenting decisions and assumptions regarding resources, time, quality requirements, costs etc., is a way to store and share important information: Why the project idea exists, or what problem is it answering to? What are the products or the deliverables of the project going to be? Who will take part in the project, and how will people working on the project be organized? When will the project take place and which are the deadlines? And in the long run, experience enhances the definition of project management best practices.

The importance and the necessity of an efficient utilisation of knowledge in organizations increases [11,13]. It is a matter of fact that individuals learn from experience, especially if they repeat similar activities because they start recognizing different situations and they learn how to avoid or how to face different situations. Knowledge management enables project team members to reduce rework and squeezes the time that it takes to plan project execution [15]. Sharing lessons learned and advanced practices, in fact is suggested as a key to helping others excel in project management [12].
However, experience shows often that managers not always are aware of the learning processes and organizations face challenges on their way to project effectiveness. May be part of the difficulties can be blamed on the nature of tacit knowledge, or other may be found in the quantity of knowledge management methods and practices that organizations adopt. In the later paragraphs will be presented a photography of how organizations actually turn into action project knowledge management.

3.2. Project Knowledge Management

“'It’s easier to identify another’s foolishness than to recognize one’s own’” [9].

There are four approaches to managerial learning from experience that authors distinguish: intuitive approach, incidental approach, retrospective approach and prospective approach [8]. The intuitive approach is when learning from experience is not a conscious process and people who use this approach believe that learning is something natural, something that normally happens though experience but for them it is difficult to define what exactly they have learned. In this case knowledge gained by experience is tacit and creates limits to all the advantages that could be attained by sharing it with others.

The incidental approach on its way is characteristic for explaining learning that by chance in situations out of the normality, which happen incidentally. The retrospective approach instead, is the one where individuals learn from experience though remembering and analysing what happened and discussing the consequences from something that occurred. Very often this approach is provoked by mistakes, just as it is with the incidental approach, but people who use the retrospective approach are ready to learn from both positive and negative experiences and make conclusions that later can serve as lessons for them or for others. According to this approach it is very useful writing down what has been learned in order to save it.

The fourth approach is the prospective one. If with all the three previous approaches learning is seen though looking back to the past, the prospective approach concentrates on looking forward and planning to learn in future. The learning process starts with planning to learn, trying to implement the plan, reviewing it later and then making conclusions on the lessons learned. A typical situation where we can see this approach to learning is a course, but we should remember that very often lessons learned in a course are not that easily turned into practice.

An interesting phenomenon is that some businesses justify themselves for not introducing retrospectives with the lack of time, others do use retrospectives but without a formalized process, some are not aware that “the thing they do at the end of a project” is a project retrospective, and only some perform it as a conscious activity of learning from experience and creating knowledge assets for the future. On the other hand, in different organizations there are different synonyms of a retrospective that sometimes only partially mean the exactly same thing. For example, it is popular among firms to use the term “post-partum” or “post-mortem”. The first is associated by some individuals with a difficult period that a mother or a child passes after birth, and isn't considered very appropriate when approaching a learning from experience process. “Post mortem” instead is related to reviewing a project that has not been completed successfully, and we will address this particular type of project review later on. In the U.S. Army they talk about Post Engagement Redress or After Action Review, in the U.S. Navy: Navy Lessons Learned [9].

Taking a deeper look on what happened is always wiser that hoping that the next time that a particular situation occurs we will make it somehow. The benefits from a project review can be analysed on three different levels: management, teams and individuals.

Management benefits mainly by understanding better the way that the organization works and by learning to distinguish between common causes and special causes of variations in the processes that form the project. By involving everyone associated with the project and reviewing the stories of all participants the management gains a complete view of the “big picture” of all processes, decisions and dynamics. This ensures an opportunity to conduct a fact based management, develop a future plan for improvement and predict the consequences of the eventual changes that will be introduced.

Project managers, in particular, learn how to improve project management methods and to find new ways to ensure that project goals are met. A retrospective enhances a full view of the situation and lets managers confront their point of view with others, hear what they have to say and record new information that individuals have gained through their work on the project. It’s the difference in perceptions between individuals that enhances all those knowledge related process of creating new knowledge trough recombining already existing knowledge elements, or
just noticing the existence of a lesson learned by an individual that has, for example an intuitive approach to learning from experience and isn’t aware of the new knowledge that he has gained by working on the project.

On a team-level, teams learn new alternatives to designing roles and responsibilities in order to enhance efficiency, but not only. Taking action to improving future work and performance creates a sense of control over the team’s activities and increases job satisfaction, work environment, and motivation to collaborate. The more team members discuss and analyse their actions in a constructive way, and the more they share their lessons from personal experience, the more they get to know each other and to understand how every member thinks and what personal knowledge assets he has gained.

For individual contributors learning through a project review helps them understand how to improve tasks and deliverables to increase their personal effectiveness. They see which actions that they or others accomplished have demonstrated positive effects on performance and which could be considered as mistakes.

4. How organizations learn from experience?

Knowledge Management highlights the importance of having systems to organize both types of knowledge, tacit and explicit. Do organizations have systems for recording explicit information? Do they make efforts to capture the tacit information that is often vital to the smooth operation of the business?

Based on project management experience, two initial interviews described below, and existing literature, in particular inspired by Dalkir’s [10] list of possible methods and practices to tacit and explicit knowledge transfer and preservation [16,17,18], here, as shown in Table 1., is defined a list of possible methods and practices used by organizations, referring to project management.

| EXPLICIT KNOWLEDGE                                | TACIT KNOWLEDGE                                          |
|--------------------------------------------------|----------------------------------------------------------|
| Demand / Project Management Software tools       | Networks (internal social networks or communities,       |
|                                                 | knowledge sharing forums)                                |
| Shared project folders, shared drives            | Interactive Project Management training                  |
| Intranets, portals, shared networks              | Coaching and mentoring programs                          |
| Shared Project Management manual                 | Videotaping                                              |
| Formal training program content                  | Storytelling                                             |
| Project Management documentation templates       | After action reviews, project status reviews, project    |
|                                                 | post-mortem sessions etc.                                |
| FAQs                                             | Exit Interviews                                          |
| Shared status reports, program/portfolio master  | Emeritus or alumni programs (whereby retirees are still  |
| plans, etc.                                      | kept “connected” to the organization)                    |

Next, a short survey has been run in order to explore which methods and practices, defined in Table 1., are adopted actually in different real life working realities. Conclusions and final considerations have been made on the basis of all findings described above.

4.1. Case studies – initial interviews

With the intent to understand how organizations approach learning from experience we will now see two case studies conducted in two international companies, that for privacy reasons, will be called Company A and Company B. During interviews it has been discussed with department/project managers how each one approaches project review and knowledge sharing.
A brief presentation of the arguments has been sent to all participants in the survey before the interviews. As the terminology used for specific activities in every company is different, it was important not to influence the participants with definitions that have been used in this study and the presentation contained a series of questions that they would have been asked:

- What kind of projects do you work on?
- What are the dimensions of the team and is the team always the same or it is formed for every project?
- What is the normal duration of a project?
- Can you give me examples of problems or difficulties that you had to face during your last project?
- Do you review projects? How?
- Do you write reports? If yes, who does exactly and whom are they addressed?
- Do you organize meetings in order to discuss how a project went?
- If yes, who participates at these meetings, how long do they last, where are they organized?
- What happens with new information? How is it saved and shared?
- Do you have any formalized methodology of learning from experience?
- Could you give me some examples of the arguments that are treated in reports or reviews?
- And examples from your personal experience for how you learned new lessons on a project that resulted useful while working on another project?

Company A is a Real Estate company that manages real estate funds and we talked with the responsible of acquisitions. Projects usually run in two major phases: one first part that consists in process underwriting and lasts about two to three month if not under pressure, and a second part from three to four years after a deal is closed that regards asset management.

The team that works on the projects is rather stable in time and usually includes a managing director who is responsible of strategic decisions, an analyst that does the numerical evaluations, and an associated project responsible that coordinates different contracts. The stability of the team determines well established relations and coordination between team members. This in its behalf enhances a positive environment in which projects are developed. According to the theory that we have examined so far, we can predict that in such teams it is less probable that it would be necessary to concentrate on interpersonal difficulties when reviewing projects. And this is exactly what the company’s interlocutor confirms. On the meeting that are organized in order to discuss past project, it is rare that topics like teambuilding or those regarding emotions are treated. Interpersonal issues, apart of some specific situations, are usually left to individual initiatives or occasional practices.

At Company A we can distinguish three types of meetings that are organized in order to review work and discuss important issues. The first type of encounter is conducted more or less every three months, in London at an international level, and is leaded by senior management from London. The main topics on which the participants reflect then are the investment opportunities on which al regional teams have been working on. Since the central Investment Committee is well aware of which have been the particular characteristics of the different investments, because it supervises them though the information systems, it selects those projects that are considered most interesting and enhances the participants to elaborates on the discussion all together. This kind of meetings enable learning processes by sharing what different teams experienced. It offers an opportunity to learn not only from personal experience but also from the experience of other teams that work on similar projects. Talking with colleagues from other countries about one’s successes of failures enhances capturing new knowledge and learning a rich variety of lessons.

A second practice used in the company is at a regional level. Every week the members of the team, including junior members, discuss on-site with the managing directors the ongoing problems and important issues. What is interesting about these meetings is that in the past they were not formalized and where rather occasional. Individuals then didn’t perceive immediate results and benefits from sharing knowledge and discussing difficulties with the other team members. Instead now the individuals have noticed how helpful these meeting are for improving performance and accessing knowledge assets that everyone has gained individually. In the present these gatherings are scheduled in the same day and time every week and individuals participate motivated. The fact that even junior
team members are involved demonstrates how the design of the big picture doesn’t ignore lower organizational levels. Everyone’s experience can add value to knowledge management processes.

At the end of every weekly meeting a minute report is saved, with the main points that have been discussed and the conclusions that have been made. In this way all events, that might seem even irrelevant at the time that they occur, can be registered in the “organizational memory” and consulted at the end of the project if needed.

The third type of meetings for reviewing projects and experience are organized off-site and last a couple of days. For example, all European teams meet in Hamburg where they participate in different discussions and exercises. These encounters are dedicated to elaborate on more in detail topics that are both common to all projects and characteristic for particular projects or events only. The people who lead the meeting and conduct presentations treat mainly topics that regard how to manage work in a more effective way and how to improve the performance of the organization. This type of encounter that the company organises is the one that can be compared most easily to what Kerth calls a project retrospective [9]. It is always off-site and lasts a couple of days which ensures better concentration on the project review and gives participants a chance to focus on reflecting how to improve performance. The bigger variety of presentations and exercises that are proposed to the individuals enables a rich knowledge flow.

Usually senior managers are invited to present specific cases that are given as examples for best practices and other cases that have faced serious problems. In this way individuals review projects, share knowledge and analyse possible actions to implement in order to resolve problems and learn from the successes and mistakes that have been accomplished during the past year. Reflecting also on failures and conducting post-mortem exercises allows identifying problems in different organizational areas. Discussing possible changes and actions to implement in order to resolve these problems helps the teams to avoid repeating the same mistakes in future.

Being off-site and in an international environment influences learning processes positively and enhances taking part actively in this kind of initiatives. At the end of such retrospectives the teams return to their activities with a plan for improvement and guides for a better performance. This demonstrates how the company not only tries to learn from experience but after conducting a project review it looks forward to use the new lessons learned and implement them in practice.

An example of a problem that has been discussed at the last off-site meeting regards the derivatives tools that in the experience of many teams resulted not to have been managed correctly and caused higher costs for the company. In order to improve performance in this area there was organized a course in derivatives that would ensure that the individuals had the necessary competences that were missing and guest professors have been invited to conduct presentations. Special attention has been dedicated to discuss best practices in this area and examine the right approaches to deal with derivatives. What has been more interesting according to the participants is that also a post-mortem has been run. In this way the individuals could reflect on what went wrong in the reviewed case and identify what was the missing knowledge and experience that they needed in order to face the problem and improve future performance. The initiative gave results according to the individuals and both management and team members were satisfied. We can comment that the satisfaction evidences positive effects on performance in this area thanks to the new knowledge that has been acquired through the learning activities designed to face the problem. On the other hand a successfully run retrospective will enhance positive attitude in individuals towards similar project reviews and initiatives in future. We can also notice an organizational culture oriented to continuous improvement that dedicates time to review what happened in the past in order to gain new knowledge.

A common impression among individuals that took part in all three types of meetings is that they are very helpful and important because they give an opportunity to stop for a while and reflect on issues that are relevant but for which they would not find time to think while busy with ongoing responsibilities. The enthusiasm in participating is influenced also by the fact that meeting colleagues from other countries gives the opportunity to confront personal experience with a wide range of different people and to widen one’s social network.

In the case of Company B, a multinational operating in Healthcare, instead in the interview took part the marketing responsible for Italy and the assistant responsible of marketing for Europe. In this second case study that we are examining teams are usually composed of a bigger number of people as they are organized mainly by region. A medium size team consists of about fifty or sixty individuals that are not always stable on all projects. A normal duration of the projects are from three to four months but results can be observed after about two years.
These project characteristics define the first observation that can be made. Performance and problems regarding projects are reviewed according to two different organizational practices. One is evaluating initiatives every two years in order to control what are the results in the long run. As we concluded, according to the theory review, the best time for running a project retrospective oriented to reflect on actions and events that occurred is at the end of the project but not too far after it. Two years is quite a long time for individuals to remember what exactly happened, why they decided to act in a certain way and what where the concrete consequences of their actions. That is why it could be suggested that in order to enhance a project review two years after the end of a project it would be very useful having a well-developed organizational memory, and particularly a system to store and make available information about projects. In the period of two years members of the organization might have changed and reflecting on a project without the people that have worked on it might result difficult. These considerations agree with the fact that there is an established practice in the company to give continuous feedback on projects and on all products that they include. Managers personally perform calls to verify if results are being accomplished. Reports from project reviews organized every trimester are conserved as sources of information to be consulted in future and the company uses a well-developed information system that supports sharing of information. There is a complete database of sales registered during the years that can be accessed in every moment.

The second kind of meetings are scheduled at every trimester and are organized always off-site where the teams spend one week on reviewing the projects that they have been working on. In Company B these initiatives are run both in every country and on an international level where teams from all regions meet together.

The off-site project reviews that are organized by region are also residential which enhances an active participation in all activities that are designed in order to reflect on performance improvement by analysing past projects. A week dedicated to these activities is much more time compared to the first case study that we examined and evidences that the company pays attention to learning from experience and improving performance.

The project review involves usually managers, marketing responsibles and sales responsibles. Back-office and middle-office employees are not invited to participate directly but contacted virtually for feedback on the activities that they work on.

The first part of the exercises and tool scheduled for the project review are defined a priori before the meeting and are run in the beginning. Then other activities and discussion are decided as a consequence of the previous ones, or because proposed by the participants as important. In the last day or days off-site the individuals are given the opportunity to raise topics that they consider problematic or unclear. This logic to lead a retrospective results very effective according to the participants because it helps avoiding a situation that sometimes occurred in the past: returning to the offices and continuing with other projects while important issues still bother or trouble some of the team members that haven’t been given the chance to share their concerns.

One of the exercises that are scheduled as first in the project retrospective meeting are those regarding team building. Such exercises are drawn to make the individuals stop and take a breath from stress or eventual conflicts that could have occurred during the project. Then prepare the participants for the review and let them refresh their energy for the future project that they will work on. As we already saw, teams that work on different projects are rather not stable in time and developing a team spirit is very important to enhance their effective collaboration. On the other hand even if the team remains the same, given its dimensions, it is possible that not all members have had the possibility to establish a good relationship that ensures best coordination and communication. According to the information gained from the interview and the description of the team building activities that participants are assigned during a retrospective, these activities correspond to the so called “Repair damage through play” exercises that let people release the tension that they have accumulated during the last days of the project by making them play. An interesting finding from this second interview is that management invests in the initiatives not all participants see the benefits of the time spent off-site. This might be explained by dynamic work rhythm or by insufficient management sponsorship.

4.2. Survey on knowledge transfer and preservation methods

After this first investigation on how companies manage project knowledge, eight tacit and eight explicit knowledge transfer and preservation methods have been identified and a second study on organizational learning from experience in project management has been conducted. Twelve project management professionals have been
asked questions aiming to detect which of the suggested practices from Table 1. are used in the organizational reality they represent. Investigated cases have been chosen in order to cover both Italian and International companies, represented by professionals from different organizational areas and industries.

| Methods | Demand / Project Management Tool | FAQs | Shared project folders, shared drives | Intranets, portals, shared networks | Shared project management manual | Formal training program content | Project management documentation templates | Shared status reports, program/portfolio master plans, etc. |
|---------|---------------------------------|------|-------------------------------------|---------------------------------|---------------------------------|------------------|-----------------|------------------|
|         | 10                             | 3    | 12                                  | 12                              | 5                               | 7                     | 11               | 12               |
| Number of organizations that confirmed practice | 83%   | 25%  | 100%                                | 100%                            | 42%                             | 58%                   | 92%              | 100%             |

Table 3. Results on tacit knowledge transfer and preservation methods.

| Methods | Networks (social networks, forums, communities) | After action reviews, project status reviews, project post-mortems etc. | Interactive Project Management training | Coaching and mentoring programs | Videotaping | Storytelling | Exit interviews | Emeritus or alumni programs |
|---------|-------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------|---------------------------------|--------------|--------------|-----------------|--------------------------|
|         | 6                                               | 12                                                                    | 3                                      | 5                               | 1            | 3            | 1               | 3                        |
| Number of organizations that confirmed practice | 50%   | 100%                                      | 25%                                    | 42%                             | 8%           | 25%          | 8%              | 25%                     |

Some immediate findings that can be noticed (Table 2, Table 3.) evidence that explicit knowledge management methods are more commonly applied and some of them are confirmed by all participants in the survey: Shared project folders, shared drives, Intranets, portals, shared networks, Shared status reports, program/portfolio master plans, etc. and After action reviews, project status reviews, project post-mortems etc.

In order to understand better these numbers further details have been taken into consideration, and the most interesting for example, are related to Shared project folders: in 5 cases folders are shared only with project team members, in three of those five documentation is consigned also to a Project Portfolio Office for monitoring and analysis. Only in one case folders are open to all project teams.

After action reviews, project status reviews, project post-mortems etc. instead can be analysed according to the specific type: in all cases single project status meetings are conducted, in six cases also area after action reviews are confirmed, and in only one there have been organized post-mortems.

Videotaping, Storytelling, Exit interviews and Emeritus or alumni programs result to have low frequency instead because of the nature of tacit knowledge and the effort required to capture it, but also due to low visibility these practices have in organizations.

5. Final considerations

Part of the results confirm what literature preview predicted but a more detailed look suggests that organizations are being creative looking for different combinations of practices and methods for knowledge management. These
considerations suggest a future investigation on perceived benefits from tacit knowledge management and a study aiming to understand implementation success factors.

Efficient knowledge management maximizes internal efficiency, profitability and ensures competitive advantage to the organization, but it can’t be considered a ready “receipt” for better quality and performance, that can be directly applied to any organization and in any moment. It is crucial to adopt a knowledge management strategy that will suit the organization. Project management offers inputs for an efficient knowledge management as, for its nature, combines processes that repeat in time and enhance specialization and knowledge consolidation, and on the other hand refers to unique initiatives that introduce new knowledge and experiences.

References

[1] Senge P, Kleiner A., Roberts C, Ross R, Roth G, & Smith B. The Dance of Change. The challenges of Sustaining Momentum in Learning Organizations. A Fifth Discipline Resource. London; 1999.
[2] Newman B, Conrad KW. A Framework for Characterizing Knowledge Management Methods, Practices, and Technologies. First Publication, in supporto of The Introduction to Knowledge Management, George Washington University Course EMGT 298.T1; 1999.
[3] Collison C, Parcell G. Ten steps to build a “knowledge asset”. Knowledge Management Review (3); 2005. 24-27.
[4] Fugate BS, Stank TP, Mentzer J T. Linking improved knowledge management to operational and organizational performance. Journal of Operations Management 27;2009. 247–264.
[5] Nonaka I, Takeuchi H. The Knowledge-Creating Company. How Japanese Companies Create the Dynamics of Innovation. Oxford University Press, New York;1995.
[6] Gupta P, Why Knowledge Management Fails: How to Avoid Common Pitfalls. Knowledge Management Review, 9 (July/August); 1999. 26-29
[7] Lewis JP, The Project Manager’s Desk Reference. 2nd ed. New York: McGraw-Hill; 2000.
[8] Mumford A, Putting learning styles to work: an integrated approach. Industrial and Commercial Training. Vol. 27 Iss: 8; 1995. 28 – 35.
[9] Kerth NL, Project retrospectives: a handbook for team reviews. Dorset House Publishing, New York; 2001.
[10] Dalkir K, La continuité du savoir : préservation et transmission du savoir dans le secteur public. Télescope. vol. 16. n° 1; 2010.146-167.
[11] Grillitsch W, Müller-Stingl A, Neumann R, Successful Sharing of Project Knowledge: Initiation, Implementation and Institutionalisation. The Electronic Journal of Knowledge Management. Volume 5. Issue 1; 2007.19 – 28.
[12] Ireland D, Sharing Experiences In Project Management. Prez sez 2;2007.
[13] Gasik S, A Model of Project Knowledge Management. Project Management Journal. Vol. 42. Iss. 3; 2011. 23-44.
[14] Walsh JP, Organizational Memory. Ungson, Gerardo Rivera Academy of Management. The Academy of Management Review; Jan 1991; 16, 1; ABI/INFORM Global; 1991. pg. 57
[15] Ajmal MM, Managing Knowledge in Project-based Organizations: A Cultural Perspective. Vaasa: Vaasa University Press. pp.169. http://www.uwasa.fi/julkaisusarjat/luettelo/?julkaisu=589; 2009.
[16] Dalkir K, Characterization of knowledge sharing channels on the Internet. Chapter V in, “Building the Knowledge Society on the Internet: Making Value from Information Exchange” Ettore Bolisani (Editor). Idea Publishing Group; 2007. 89-119.
[17] APQC (American Productivity and Quality Centre). Capturing critical knowledge from a shifting workforce, Houston, Texas: APQC; 2003.
[18] Liebowitz J, Knowledge retention strategies and solutions. Boca Raton, Floride, CRC Press; 2009.