

BEHAVIOR (TPB) IN DEVELOPING OF INFORMATION LITERACY AT WORKPLACE

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Abstract: *This article discusses a conceptual framework developed based on article reviewed which looking at work place information literacy and exploring its relationships to personal knowledge management. The proposed framework involves three main elements: motivation as a tool to actual employee behaviors; experience as a practices and process of learning in workplace; and, effective information use as a personal knowledge management. The concepts of literacy and literacies are discussed in contrast to information literacy, and it is suggested that seeing information literacy as an as part of literacy, rather than as an independent concept, is a more fruitful approach to the study of the core processes involved in sense-making, learning and decision making in situated practice and particularly in organizational environments.*

Key Words: Behavior, Theory of Planned Behavior, Information Literacy

Introduction

In the twenty-first century information literacy should be seen as a core and critical information practice, that builds people's capacity to negotiate increasingly complex social and technological environments and one that facilitates a way of knowing about the modalities of information within an environment and how these modalities are constructed. Recently reports from industry and the literature indicate that information literacy and the related competencies, critical thinking and lifelong learning are very important to people as an employer. Based on review from Sharon Weiner (2011), consensus was growing on the need and sense for an information literacy workforce and sense of urgency about its implementation. Ilene F. Rockman (2009) was clarifying that information literacy broadly defined a set of abilities that allow a person to recognize when information is needed and to effectively and efficiently act on that need. According to Sharon Weiner (2011), Ilene F. Rockman (2009) and Ruben Toledano O'Farrill (2010), the definition of information literacy endorsed by organizations

which actually a lot in common can be represented by The Association of College and Research Libraries (ACRL, 2000) synthetic statement that:

An information literate individual is able to:

- i. Determine the extent of information needed
- ii. Access the needed information effectively and efficiently
- iii. Evaluate information and its sources critically
- iv. Incorporate selected information into one's knowledge base
- v. Use information effectively to accomplish a specific purpose
- vi. Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

This article has its origins in an on-going study of information literacy in the workplace, which is exploring its theoretical and practical relationships to personal knowledge management. That article was presented the theoretical framework being developed to underpin the study. It was important from the outset to develop a framework suited to research within a workplace setting, particularly since many existing definitions and frameworks for information literacy have emerged largely from educational contexts.

Importance and issues of information literacy at workplace

Sharon Weiner (2011) points that the ability to locate, understand and use information and to solve problems was necessary competency for most jobs. Success in organizations requires the ability to monitor trends and readily adapt to them. Employers consider information literacy to be important to the workforce because they need a workforce that has willingness and the ability to continually learn new skills. Goad (2002) proposed sixteen steps for information literacy as a process that occurs in the workplace (Sharon Weiner, 2011). These steps are:

- a. Establish the need.
- b. Break the subject down into its parts.
- c. Identify the relationships and hierarchies.
- d. Identify information sources.
- e. Identify multiple sources.
- f. Select a strategy.
- g. Develop a question list.
- h. Conduct the search.
- i. Authenticate the information.
- j. Filter the information while remaining focused.
- k. Analyze the information.
- l. Summarize the information once gathered.
- m. Select the information that applies.
- n. Put information into context.
- o. Apply the information.
- p. Evaluate the action taken and re-enter as necessary.

Based on Sharon Weiner (2011) conclusions, the information literacy related competencies that many business and educational organization state are necessary for readiness for the workforce and success in the workplace are:

- i. Twenty first century literacy, defined as the set of abilities and skills where aural, visual and digital literacy overlap. These include the ability to understand the power of images and sounds, to recognize and use that power, to manipulate and transform digital media, to distribute them pervasively and to easily adapt them to new forms.

- ii. The ability to use the research process to describe, summarize and synthesize information.
- iii. Digital media literacy defined as the use of a variety of media and formats to evaluate, create and distribute information.
- iv. Critical thinking, problem solving, and analytical reasoning skills.
- v. Lifelong learning and self-direction.
- vi. Effective communication skills, orally and in writing, teamwork and collaboration.
- vii. Ability to locate, organize and access the credibility of information.
- viii. Information and communication technology (ICT) literacy.
- ix. Judgement in sifting for relevant information among overwhelming amounts.
- x. Social skills, including the ability to listen well.
- xi. The ability to formulate precise, accurate questions.

In generally of issues information literacy at workplace viewed the concept of information literacy has been developed mainly by librarians, researched mainly within educational contexts and focused on individual competence in information use. While its application to workplace environments has been assumed, comparatively little research has been done into workplace situations.

The general concept of information literacy and the mainstream institutional frameworks in particular have come under criticism mainly for the lack of clear definitions, and scepticism about the assumed unproblematic transference of abilities and skills to contexts outside education. These statement was come out as an evidence from Ruben Toledano O'Farrill (2010) stated that as many scholars try to apply these institutional frameworks to workplace practices, the question arises as to whether what has been mainly an educational concern with the development of individualistic information using skills will be useful in workplaces where learning and decision making are processes involving communities of practice, coaching, apprenticeship and other strategies that rely heavily on interpersonal exchanges of information and social sense making. In these environments, knowledge development and transfer take on a clearly social and interactive guise and "the crucial roles of human interpretation, communication, and skills in generating effective organizational action" are quite evident. Although, Sharon Weiner (2011) support that with stated, one barrier is that twenty-first century literacy are not well understood or sufficiently researched. Based on development of individualistic information using skills, information literacy can create the personal knowledge management as a competency at any organizations.

However a few explicit connections between information literacy and knowledge management are to be found in the literature and little research has been done into workplace information literacy. It is therefore uncertain to what extent the mainstream theoretical assumptions and frameworks of information literacy, which have been developed mostly for educational purposes, are applicable to workplace situations. According Ruben Toledano O'Farrill, (2008), a few authors have proposed that information literacy is an important aspect of developing organizational capabilities in the information-intensive, knowledge- managed workplace and have argued for more research into this area. In statement LLoyd (2006) points out that as the amount of information available to workers and the nature of information access becomes more complex, it becomes important to explore the emerging concept of workplace information literacy in facilitating meaningful learning about work and collective practice (Ruben Toledano O'Farrill, 2008).

Developing Information Literacy at Workplace

The combination of motivation and experience in individual perspective are the most important elements in developing information literacy at workplace. According Andrew K. Shenton and Megan Fitzgibbons (2010) points that, from motivation individual can have experience to making information literacy relevant.

i) Motivation

In developing individual competency, without any self-motivation on the part of the worker, will limit the degree to which information skills can applied in other situations. The function of motivation aspects likes attitude, subjective norm and perceived behavior control directly make the individual has behavioral intention. In motivation elements, this article suggested the integration Theory of Planned Behavior (TPB) most suitable to push individual as a workers in organization turn their behavior based on influence. TPB holds that attitude, subjective norm, and perceived behavior control are direct determinants of intentions, which in turn will influence behavior. The TBP is illustrated in Figure 1.

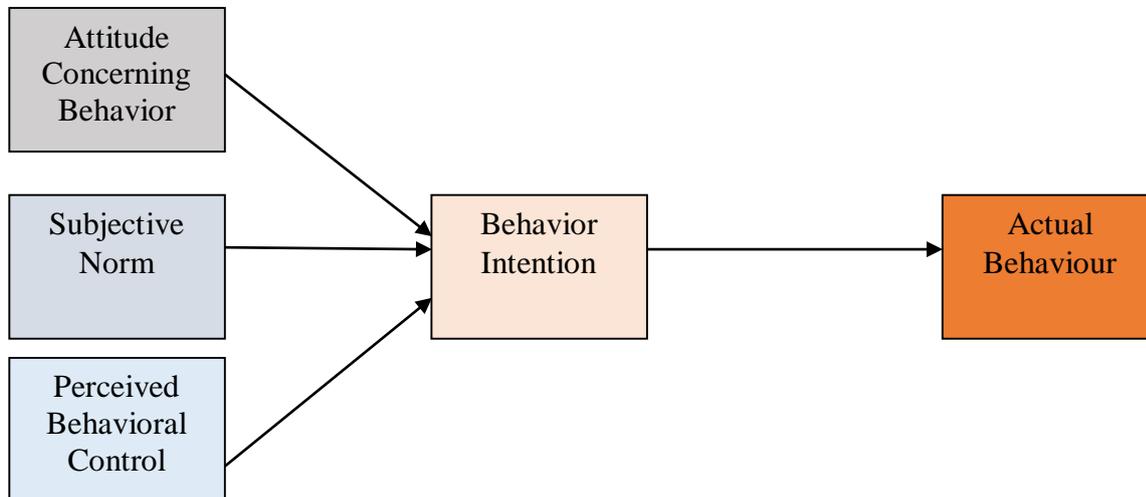


Figure 1. Theory of Planned Behavior. Sources: Maslin Masrom & Ramlah Hussien (2008).

Behavior Intention

Behavior intention refers to the subjective probability of one engagement in any behavior. The stronger the behavior intention, the more likely is the execution of the behavior. The relationship between behavior intention and the execution of the actual behavior so strong. In high of degree based on aspects of motivation explore the information at workplace, individual can build up their intention.

Attitude

Attitude refers to the degree to which the person has a favorable or favorable evaluation of the behavior in question.

Subjective Norm

Subjective norms refer to the perceived social pressure to perform or not to perform the behavior. Subjective norm in a organization setting include social, organizational, departmental and peer norms. The closer the affinity of individuals' goals with their reference group at any level, the more likely the individuals is to perform according to reference group expectation.

Perceived Behavioral Control

Perceived behavioral control refers to the individual's belief in the ease to execute a behavior. The stronger the individual feels his ability to execute the behavior, the more the resources and opportunities the individual processes to execute the behavior, the higher the perceived behavioral control. Perceived behavioral control including self-efficacy, seclusion of office, amount of workload, easy to use the tools and behavior policy.

ii) Workplace Experiences: Four Activities of Information Literacy Practice

As a practice, information literacy cannot be reduced to a single element, and it is more than just the sum of the competencies or information skills that are often used to describe it. From a practice perspective, the notion of competence and what constitutes competent action is something which is formed and understood through a social setting in which a person enters and operates. Consequently, the formation of information literacy competency or skill is influenced by the sayings and doings of the social site that enable the practice to occur, or in some instances constrain the practice. These activities are suggested by Annemaree Lloyd (2010) was described as influence and information work, information sharing and coupling, and are discussed in the following section.

Influence Work

Influence work is constituted through the mediating activities of members as they interact with newcomers and with each other. Within the interaction of influence work, experienced members of the community engage new members with explicit and implicit information about the community's culture, history, traditions, practice and performance and draw them towards knowledge sites that are sanctioned. This interaction facilitates the negotiation and sharing of collective meaning, draws new members towards the community of practice and facilitates the mapping of the information landscape of the workplace, thus ensuring the continuity of the site and its unique characteristics. Where new members are concerned influence work aims at positioning them towards to the community and enabling a renegotiation of identity a way from institutional identity toward the shared understandings constructed through actual practice.

Information Work

Information work refers to bodywork and to the corporeal, embodied and often contingent understandings it produces. It is directed towards the developing or refining of practical information skills deemed effective and appropriate to collective practice and to the production and reproduction of collective knowledge about the ways things are done. Information work aims at changing the information practices of new members in order to direct them towards the modalities of information (social, corporeal or textual) that are constituted through collective and embodied knowledge.

Information Sharing

This feature has not been considered in relation to information literacy research and nor has it been widely researched in the library sector, but is one that is central to both information and influence work. Where it has been researched it is often referred to as an information practice. However, in the framework of practice that has been employed for this work, information sharing is understood not as a practice but as an activity, which is purposeful and one that is affected and influenced by the sayings and doings of the environment. Information sharing is a purposeful directed activity, which enables a member to give and receive information. When it is considered in the light of collaborative socio cultural practices it is the interaction and underlying dynamics that influence the dialogic relationship that is of interest

because this effects the information and influence work that occurs within information literacy practice.

Information Coupling

Coupling facilitates emergent awareness of where information is situated, and the strategies used to access it within the various modalities. It brings together (couples) the explicit knowledge with experiential and relationally based knowledge to produce a way of knowing within the site that is inter subjectively understood. The activity has both reflective and reflexive dimensions whereby the member engages not only with content but also acknowledges the effectiveness of their own information practice against the sanctioned ways of knowing within the site. The process is central to the transition from new member to full member. The affordances provided by influence and information work, information sharing and coupling interweave to form the nexus of activities that form the socio cultural activities of information literacy practice. It is important to note that the focus here is not on the skills of information literacy (these are constituted through practice) but on the nexus of activities that form the practice. The enactment of information literacy occurs through the site of the social and as such it is influenced by what is prefigured within the site, including knowledge sites and their specific information modalities and the material objects within the site.

Practices activities have a strong relationship with the experience. According Christine Susan Bruce (1999) identified, the experiences are closely related to important workplace processes such as environmental scanning, information management, corporate memory, and research and development; conforming that information literacy should be considered a significant part of the character of learning organizations as well as being a key characteristic of the organizations employees. Based on her research, author also points that summaries of the seven faces of experienced in information literacy. The seven faces are:

- i. *The first face: information literacy is experienced as using information technology for information awareness and communication.*
In this category information technology helps users to stay informed and to communicate with colleagues within the organization and across the globe.
- ii. *The second face: information literacy is experienced as finding information from appropriate sources.*
In this category, knowledge of information sources is important *including* organizational, human, computer and print sources. People emphasize the need to lean on information professionals to help speed the process.
- iii. *The third face: information literacy is experienced as executing a process.*
This category features information processes. It is intricately bound up with the experience of problem solving or decision making. The information processes themselves are not straight forward. They are regarded by some as a creative art being implemented differently by different people in different contexts.
- iv. *The fourth face: information literacy is experienced as controlling information.*
This category people are focusing on bringing relevant information within their personal sphere of influence and managing it in such a way that it is retrievable. This category is about making connections between information, projects and people using mechanical tools (such as cards of files), electronic tools or the human brain.
- v. *The fifth face: information literacy is experienced as building up a personal knowledge base in a new area of interest.*
Here learning, in the sense of building up a knowledge base is the user's purpose. This involves the development of personal perspectives about the knowledge gained and is wholly dependent on critical thinking or analysis.

- vi. *The sixth face: information literacy is experienced as working with knowledge and personal perspectives adopted in such a way that novel insights are gained.*

This sixth experience is grounded in extensive personal knowledge and experience together with a capacity for creative insight or intuition. It remains mysterious to those who experience it, but they are highly dependent on insights to develop new forms of knowledge, new approaches to tasks or novel solutions.

- vii. *The seventh face: information literacy is experienced as using information wisely for the benefit of others.*

A personal quality of wisdom is brought to this experience of information use. A consciousness of personal values and ethics is combined with an individual's knowledge and experience when working with others.

Personal Knowledge Management

Information is considered an input to the knowledge creation process. Theorising this process, Nonaka (1994) postulated that information is a flow of messages, while knowledge is created and organized by the very flow of information, anchored on the commitment and beliefs of its holder (Raj Agnihotri & Marvin D. Troutt, 2009). This concept suggests that the process of knowledge creation starts from questions or problems that lead to the search for information and finally ends at knowledge. Therefore, the knowledge creation process is accelerated due to the high inflow of information.

Raj Agnihotri and Marvin D. Troutt also introduced a notion of personal knowledge management that includes organizing, retrieving and evaluating information. They conceived personal knowledge management as a conceptual framework to organize and integrate information that as individuals, feel is important so that it becomes part of our personal knowledge base. This concept was further expanded by several scholars whose suggested personal knowledge management framework focused on how knowledge workers can develop additional effective learning styles at individual levels. They viewed personal knowledge management as a set of skills necessary for better problem solving, decision making and other knowledge works, and highlighted the significance of the appropriate practice of each skill as well as the importance of technology integration. This skills set includes seven personal knowledge management skills:

- a. Retrieving information.
- b. Evaluating/assessing information.
- c. Organising information.
- d. Analysing information.
- e. Presenting information.
- f. Securing information.
- g. Collaborating around information.

It is important to understand that personal knowledge management is not about self-promotion, but is instead about self-effectiveness. In particular, personal knowledge management is about making us more effective, making individuals more valuable to the organizations that their work for and creating more value for ourselves. These arguments support the notion that individuals or organizations are not forced to choose either knowledge management or personal knowledge management, as they are complementary to each other.

Personal Knowledge Management, Learning, and Information Use in the Organization

The concept of information literacy is scarcely found in the mainstream management literature but it seems possible to link the concepts of information literacy and personal knowledge management at several levels, basically related to the application of information to

workplace learning, sense making, and decision making (Ruben Toledano O'Farrill, 2010). In trying to link the concepts of personal knowledge management and information literacy, it is necessary to point out some fundamental considerations for successful personal knowledge management implementations. Organizational strategies and initiatives for the use of information and knowledge imply having in place, at least to some degree (Ruben Toledano O'Farrill, 2010):

- a. A value system that is coherent with personal knowledge management. This is related to organizational culture.
- b. Clear aims and goals for knowledge use.
- c. Information systems that provide technological support.
- d. A knowledge system that takes care of logically organizing explicit knowledge from learning activities, developments, best practices, lessons learnt, people's profiles, etc.
- e. A quality system that takes care of the basic aspects of quality assurance, many of which are related to information, knowledge, and expertise.
- f. A learning system that organizes and supports learning activities and generally the build-up and sharing of knowledge.
- g. Business processes aligned to working efficiently with knowledge.

This study has employed a working definition of information literacy as effective information use for the empirical study because the concept of effectiveness was considered a point of connection between information literacy and personal knowledge management. It has been used before (Bruce, 1997) as a proxy for information literacy, and Webber and Johnston's (2004) definition of information literacy as "appropriate information behavior" implies the idea of effectiveness as well.

Conceptions of Effective Information Use

The analysis modifications based on Ruben Toledano O'Farrill (2010) identified eight conceptions of effective information use illustrated in Figure 2:

1. Awareness of information related to events that affect the service and changes to procedures:
 - a. using institutional communication systems; and
 - b. getting information from peers.
2. Awareness of job related information and knowledge sources:
 - a. awareness of documental information sources;
 - b. awareness of peers' specialty knowledge; and
 - c. awareness of new professional knowledge.
3. Sourcing appropriate information for decision making:
 - a. obtaining enough relevant information from the stakeholders;
 - b. using documental information bases;
 - c. sourcing information and advice from peers; and
 - d. interpreting information.
4. Giving appropriate advice and information to stakeholders:
 - a. giving advice and instructions for scope of jobs;
 - b. giving job information; and
 - c. putting information together and recapping.
5. Controlling information:
 - a. controlling information sourced from stakeholders;

- b. controlling information given to stakeholders;
 - c. using quality-assured information sources; and
 - d. controlling staffing records.
6. Sharing information and knowledge:
 - a. sharing information with peers; and
 - b. willingness to share.
 7. Using information to learn:
 - a. using documental knowledge sources;
 - b. accessing peers' specialist knowledge; and
 - c. using feedback.
 8. Using information systems:
 - a. using transaction processing systems record management ;
 - b. using decision-support systems (Algorithms); and
 - c. using knowledge-support bases (knowledge web and intranet).

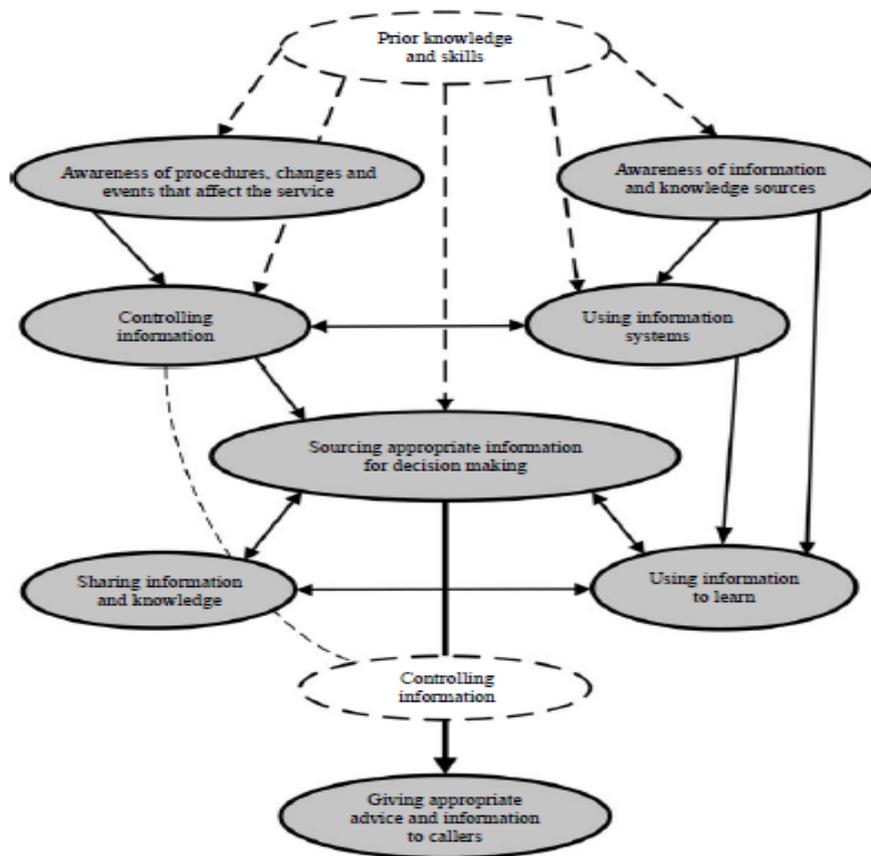
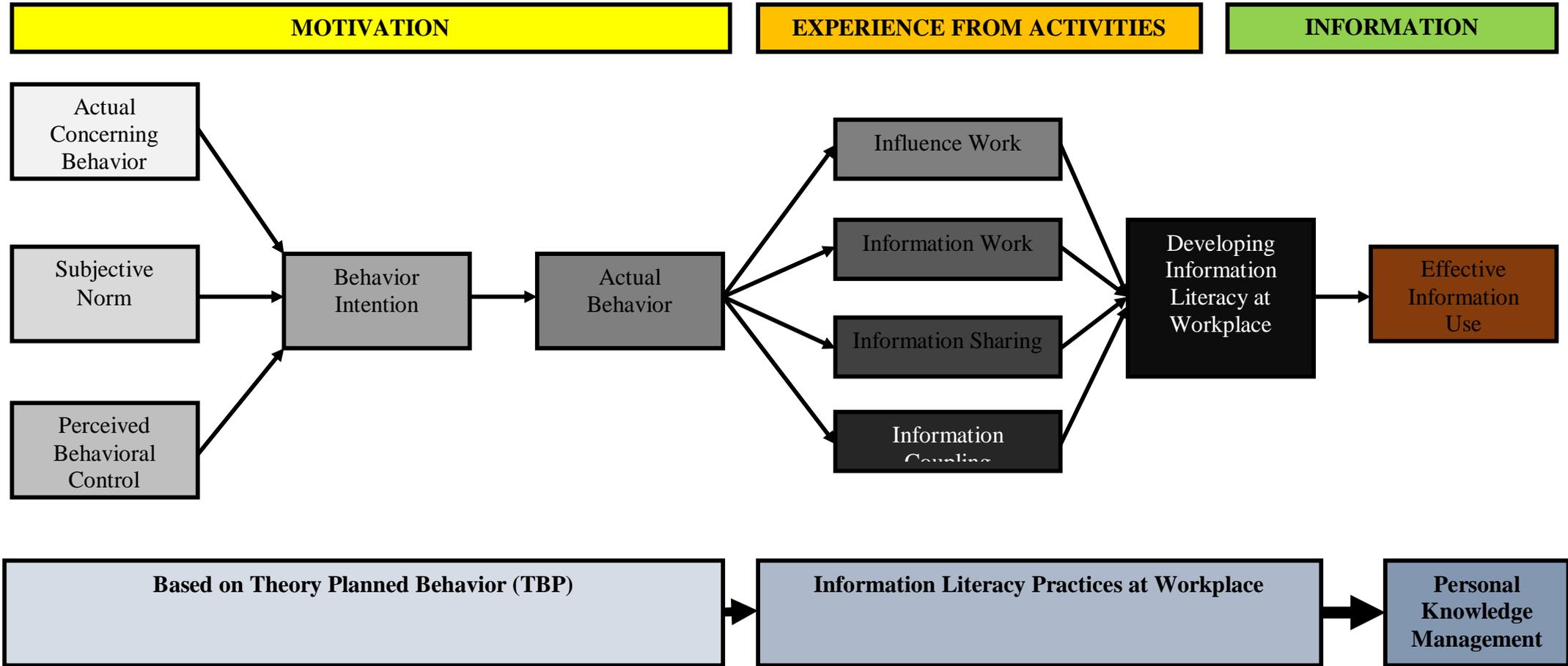


Figure 2: Conceptions of effective information use. Sources: Ruben Toledano O'Farrill (2010).

Conceptual Framework of Study



Conclusion

This study has shown that the relevance of integrating Theory Planned Behavior (TPB) as an element of motivation and information practices is high in relation to information literacy development. It seems safe to assume that the requirements for effective information use and therefore information literacy will vary according to the aims, field of practice, industry, and others of different workplaces as well as their organizational culture and the presence of specific initiatives such as those related to personal knowledge management. This study can only hope to have made a useful contribution to the understanding of workplace information literacy by providing a closer look at, and a particular interpretation of, how workers conceive of effective information use and through the discussion of the implications this may have for how people effectively learn, share their knowledge and develop information literacy appropriate to their work need.

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