

Marketing practitioner's tacit knowledge acquisition using Repertory Grid Technique (RTG)

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Abstract. The tacit knowledge of Marketing practitioner's experts is excellent resources and priceless. It takes into account their experiential, skill, ideas, belief systems, insight and speculation into management decision-making. This expertise is an individual intuitive judgment and personal shortcuts to complete the work efficiently. Tacit knowledge of Marketing practitioner's experts is one of best problem solutions in marketing strategy, environmental analysis, product management and partner's relationship. This paper proposes the acquisition method of tacit knowledge from Marketing practitioner's using Repertory Grid Technique (RGT). The RGT is a software application for tacit acquisition knowledge to provide a systematic approach to capture and acquire the constructs from an individual. The result shows the understanding of RGT could make TKE and MPE get a good result in capturing and acquiring tacit knowledge of Marketing practitioner's experts.

1. Introduction

Marketing management is the process of delivering the product and services to consumers. Marketing management process needs concepts and strategies to communicate and develop the business process to identify and keep the customer, get their interest, and strive to reach their satisfaction. Customer satisfaction will be successfully achieved when employing all its resources effectively. It includes how to generate the underlying strategies sales techniques, business communication, and business development. It also consists of the integration process through which a company can build an active communication link with its customers and can create value for their clients and themselves.

Typically, in the development of the Marketing process, the essential things is the creativity and skill of Marketing practitioners in advertising, distribution, and selling. It consists of concept and strategy, environmental analysis, product management, organizes a partnership with producer, and build relationships with customers and create dependencies. Those things are call marketing knowledge. Sometimes, that experience does not appear in manual, guidebooks, documents, technical report, business rules, procedures, databases, etc. This knowledge called tacit knowledge. Tacit knowledge is non-articulated knowledge. Tacit knowledge does not manifest as rules; instead, it exists as the domain expert's skill, common sense, and intuitive judgment while solving the problem [1].

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Tacit knowledge is expert experiences that difficult to transfer using writing it down or verbalizing it. Many enterprises excel at collecting data and information, but few have systematic processes, supported by the right culture and technologies, for capturing tacit knowledge owned by their employees. Tacit knowledge has deemed as the knowledge that is unexpressed yet implied or indicated. The act of an expert imparting their consciousness is merely an external expression of in-depth, experimental, intuitive and inculcated knowledge that make up their being [1].

Tacit knowledge of Marketing practitioner's experts is excellent resources and priceless. It is including the experiential, skill, ideas, belief systems, insight and even involves their speculation to decision-making. This expertise also could be an individual intuitive judgment and personal shortcuts to complete the work efficiently. Even more importantly, tacit knowledge of Marketing practitioner's experts always is problem solutions in marketing strategy, environmental analysis, product management and partner's relationship, thus making the organization get more advantages from it. This paper focuses only on tacit knowledge of Marketing practitioner's and how to capture and acquire it to reach and present more benefits to their enterprise.

We propose the acquisition framework and method of tacit knowledge from Marketing practitioner's using repertory grid technique (RGT) to eliciting personal constructs. Computational WebGrid 5 RGT tool is using to employ the framework and method. The rest of this paper is organized as follows: In section 2 literature reviews, and in section 3 propose the framework tacit knowledge acquisition of the Marketing practitioner's experts, while in part 4 suggested the methodology to capture and acquire implicit knowledge from the Marketing practitioner's expert. In section 5, we will discuss and analyze the process of tacit knowledge acquisition of the Marketing practitioner's experts. Finally, conclude and summarize the work in section 6.

2. Literature Review and Related Works

Capital knowledge is divided into tacit and explicit knowledge[2]. The four keys to knowledge creation lie in the way of Socialization, Externalization, Combination, and Internalization (SECI) [3,4]. Polanyi also stated that the dimension of knowledge consists of tacit and explicit knowledge [5]. Tacit's knowledge is the personal knowledge that is difficult to formalize. This knowledge consists of the subjective knowledge, insight, and intuition that exist in a person because he has been immersed in activities for a long time. Explicit knowledge is a formal knowledge that is easily transmitted to individuals and groups. It is often articulated in the form of mathematical formulas, rules, specifications, and so on. According to the SECI Model, the interaction between two forms of knowledge is critical to the dynamics of knowledge creation in business and organizations. It produces four meaningful modes of knowledge conversion that require a special learning process and as a whole is the creation of knowledge [6]. The mode of externalization is the process of tacit knowledge into explicit knowledge; it holds the key to the creation of knowledge as it produces a new explicit concept of tacit knowledge. The internalization mode is the process of explicit knowledge into tacit knowledge; it is closely related to learning by doing and leading to operational/procedural knowledge. While the combination mode is a process for gathering explicit knowledge from multiple sources; Socialization, from tacit to tacit knowledge, is a common mode of instructing, training and supervising employees [6].

Tacit knowledge represents knowledge based on individual experience of human action in the form of evaluation, attitude, the point of view, commitment, and motivation [7]. Polanyi expressed the essence of tacit knowledge in the phrase of "*We know more than we can tell*".

The acquisition of knowledge in computer science is practiced earlier manually and then automated. The acquisition of manual knowledge is carried out in several ways: protocol analysis, interviews, and observations into general acquisition activities. Protocol analysis involves examining verbal records of experts who describe their thought processes as they solve a typical problem. Interviews are processes in which a knowledge engineer formally discusses with an expert. Observation is a process of acquisition where the observer determines useful information by observing

an expert completing a unique task. All of these processes are labor-intensive and error-prone. Automating knowledge acquisition offers a solution to the problem [8].

In the first part of the 20th century, American psychologist George Kelly formulated Personal Constructs Psychology, a psychological theory that explains why people have different views and attitudes toward events in the world. Kelly [10] claims that people during their lifetime use very personal criteria. Kelly devised a method for obtaining personal construction, The Role Construct Repertory Test. This method has been redefined and self-developed and the other and is known as Repertory Grid Technique (RTG) [9]. According to Kelly, the extent to which we understand others - or ourselves - is measured insofar as we understand how they perceive their experiences. The term personal construction in Kelly's theory refers to a set of models, or hypotheses, or representations, which everyone has made about their world. Kelly finds interviews as a way to get people to express their models.

RGT is a representation of how the experts to see a particular problem. The grid is a bipolar scale or construction whose elements are placed in gradation. The knowledge engineer gets the construction and then asks the domain expert to provide a set of examples, called elements. For a more accurate assessment of the required elements assessed by the construction provided and gradations to solve the scale [10], as shown in figure 1.

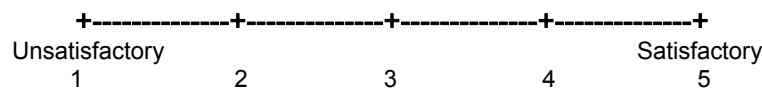


Figure 1. The conceptual framework [10].

One of the benefits of RGT is that it may prompt the expert to think more seriously about the problem and how to solve it [11]. The RGT provides a systematic approach to capture and acquire such constructs from an individual. The RTG first stage has defined the purpose of the project. The next stage is the setup of elicited elements from that person. The subject must be knowledgeable about all elements. The final stage in RGT is the elicited construct.

3. Proposed Framework

The conceptual framework for tacit knowledge acquisition of the Marketing practitioner's expert in this paper focuses on the second phase of Nonaka's model of knowledge creation and transformation, called Externalization [4] and knowledge management processes and activities [12], as shown in Figure 2. The first step in this conceptual framework of tacit knowledge acquisition process is determined domain area. The second step is decomposing the knowledge acquisition task. When attempting to solve any significant scale problem, we need to break the Marketing practitioner's expert professional activity into some smaller tasks to build a knowledge base and breaking the task into sub-tasks. By breaking the tasks to subtasks could be recognizing that knowledge inherent in well-developed skills are complex and expected to help and manage the expert's focus of attention in building a knowledge base to acquire a reliable and get an accurate result. Structuring the task into some distinct sub-steps will ease the expert into the task building a knowledge base gradually and also enable the expert to maintain a global perspective that prevents confusion when detailed knowledge is specified. Decomposition of knowledge acquisition task also helps the expert to focus their attention on one aspect of expertise at a time and expected could be increasing the availability of pertinent information in a timely fashion.

The third step is determining interdependencies. By determines, interdependencies between these tasks will facilitate identifying the missing pieces of knowledge, determine the number of knowledge are related and determine any inconsistencies with the knowledge gathered for that domain. The next step is focused on pattern recognition as the basis of expertise [13]. When the expert challenged to solve most of their problem in a project case, they expected can recognizing an aspect of the similar

problem has encountered before in the past as the experiential knowledge of them that ever has been the personal shortcut to complete work easily. The methodology of tacit knowledge acquisition from Marketing practitioner’s expert will be discussed in section 4.

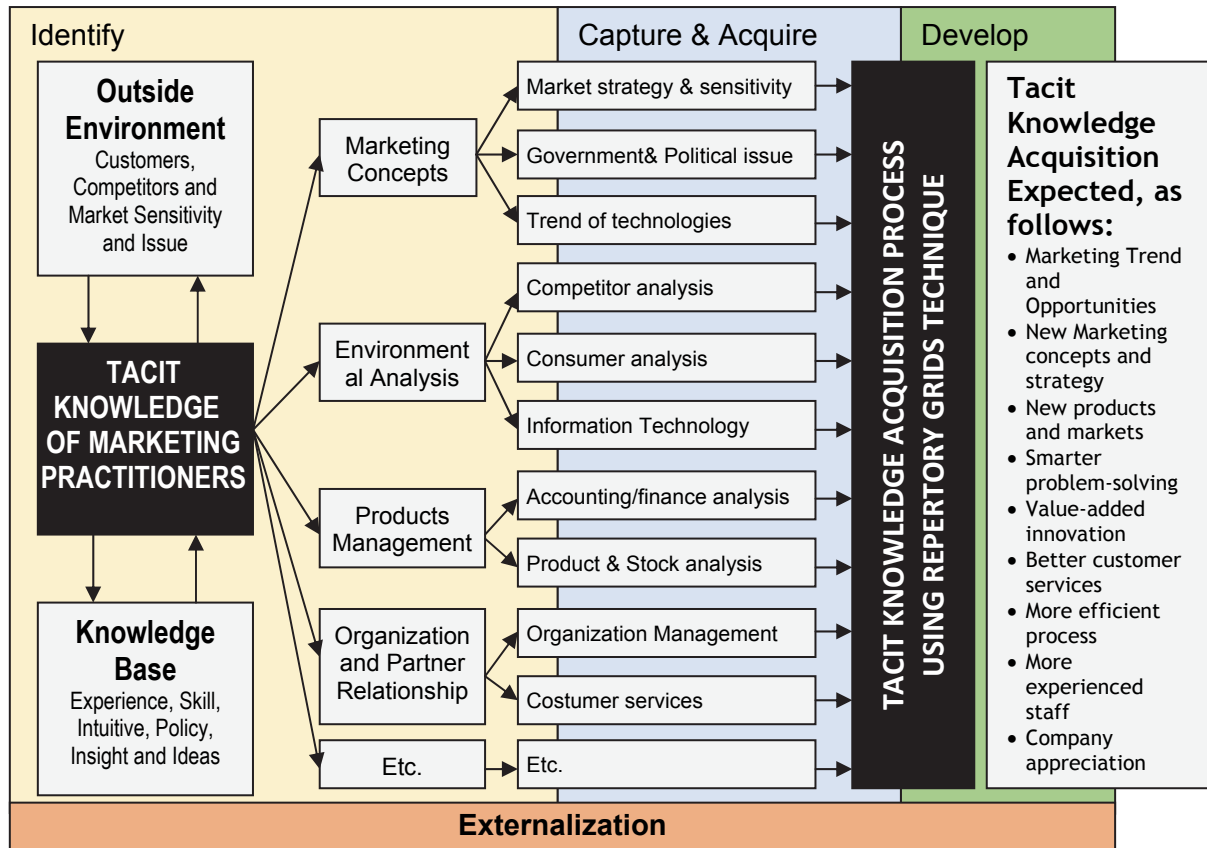


Figure 2. Marketing Practitioner's Tacit Knowledge Acquisition framework.

4. Tacit Knowledge Acquisition Methodology

The acquisition methodology suggested in this paper using RTG, as shown in figure 3.

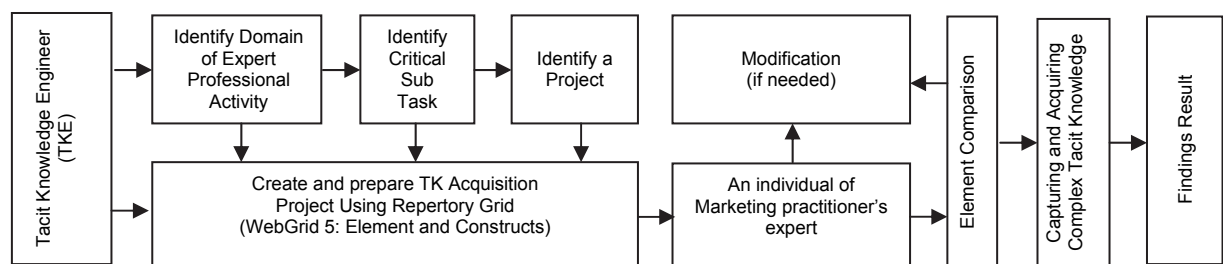


Figure 3. Tacit knowledge acquisition methodology using RTG.

The sequences of tacit knowledge acquisition methodology using repertory grid technique can describe into multistep as shown in figure 3, as follows:

Step 1: Identify domain, critical Sub-Task and scenario of Marketing practitioner’s professional activity, as proposed in framework in figure 2;

Step 2: Create and prepare a tacit knowledge acquisition scenario mimicking a real market situation of Marketing practitioner’s professional activity sub-task using repertory grid technique, as follows:

1. Define the purpose of the scenario;
2. Build element selection; choose a set of elements which are consistent with the objective of a scenario and targeted subsystem of constructs to be elicited from Marketing practitioner's experts;
3. Make constructs elicitation; elicit the content and hierarchical structure of the subjective meanings.

Step 3: Establish an individual of Marketing practitioner's expert to depicting their professional activity (sub-task).

Step 4: Select a scenario with element selection and constructs elicitation for an individual of Marketing practitioner's expert with a knowledge base on his/her experiential.

Step 5: Element comparison; this stage involves Marketing practitioner's expert in completing a repertory grid scenario that created by TKE to capturing and acquire the complex tacit knowledge from his/her.

Step 6: Modification (if needed); suggest to an individual of Marketing practitioner's expert to make some modification of their constructs.

Step 7: Findings result from a repertory grid scenario has been completed as an output of tacit knowledge acquisition process from Marketing practitioner's expert, involves display, cluster, map, cross-plot, and matches. Save and put into the repository as the knowledge to analyze the same case.

The result of tacit knowledge acquisition methodology to capture and acquire the expertise Marketing practitioner's expert of using RGT will discuss in section 5.

5. Result and Discussion

The implementation of the RGT involves agreement on a purpose is the identification or provision of a series of scenarios. There are many software packages that administrate the eliciting process and supply the researcher with different statistical tools. We discuss the implementation of tacit knowledge acquisition methodology to capture and acquire the expertise Marketing practitioner's expert of using RGT.

Elements:

in term their performance at work
 in term their performance on the assessment programme
 in term their psychological test results
 in term their personal history

Constructs:

good formal education--poor formal education
 younger (30-40)--older (40-50)
 independent--group-dependent
 take early action on problems--wait until problems become crises
 truthful in psychological tests--lied in psychological tests
 good understanding of the competitive environment--no understanding of the competitive environmen
 enjoy solving customer problems--dislike getting involved in customer problems
 works long hours because he enjoys it--work long hours because of poor planning
 manages conflict skilfully--gets into silly fights he can't win
 happy with new technology--afraid of new technology
 proud of their staff when they achieve--hardly notices staff achievement

Figure 4. The elements and construct within WebGrid 5

We take one of the existing sub-task within the framework of *organizational management* is a routine activity of a Marketing expert who has the ability, the skills, and experience. TKE set up a scenario as described in the methodology and select the scenario mimicking a real market situation with *the topic and purpose to analyze the differences between successful and unsuccessful managers in the new environment*. Create elements with the two against one comparison were: regarding their performance at work; regarding their performance on the assessment programme; regarding their psychological test results, and regarding their personal history, and create the constructs, as shown in figure 4.

5.1. The rating of elements and the resulting grid of MPE-1

TKE set up a scenario in the default form with element selection and constructs elicitation, without gradation or rating elements and establish an individual of Marketing practitioner's expert (MPE-1) make element comparison. This stage involves Marketing practitioner's expert to completing a repertory grid scenario that created by TKE to capturing and acquire the complex tacit knowledge. To get better results, TKE can suggest to MPE-1 to do the modification by his experience in running their daily routines. Modified scenarios by MPE-1 can serve as a model for capturing and gaining tacit knowledge from other individual Marketing experts (MPE-n)later. The final step is the findings result from a repertory grid scenario has been completed as an output of tacit knowledge acquisition process from Marketing practitioner's expert, involves display, cluster, map, cross-plot, and matches, as shown in Figure 5.

5.2. Analysis of the Grid of MPE-1

The program noted two poles of the construct, and all the elements were rated accordingly by an individual Marketing practitioner's expert, belonging to a different extent to one or the other of poles. The construct and the rating of all the elements noted in the program on the first row of the grid. The resulting grid as shown in figure 5.(a). The elicited constructs forms row and the elements columns in the grid. Statistical methods may be used to find similarities or differences in the data. The resulting grid as shown in figure 5.(b), called hierarchical clustering analysis, the grid has been sorted and rearranged to bring closely matching elements together and closely matching construct together. The similarity scores of adjacent elements or construct are provided in a numeric form and graphically in a tree structure. In the figure 5.(c), the principal component analysis identifies a distinct pattern of variance on figures in a grid. In figure 5.(d) a cross-plot of the principal component analysis identifies the finding result.

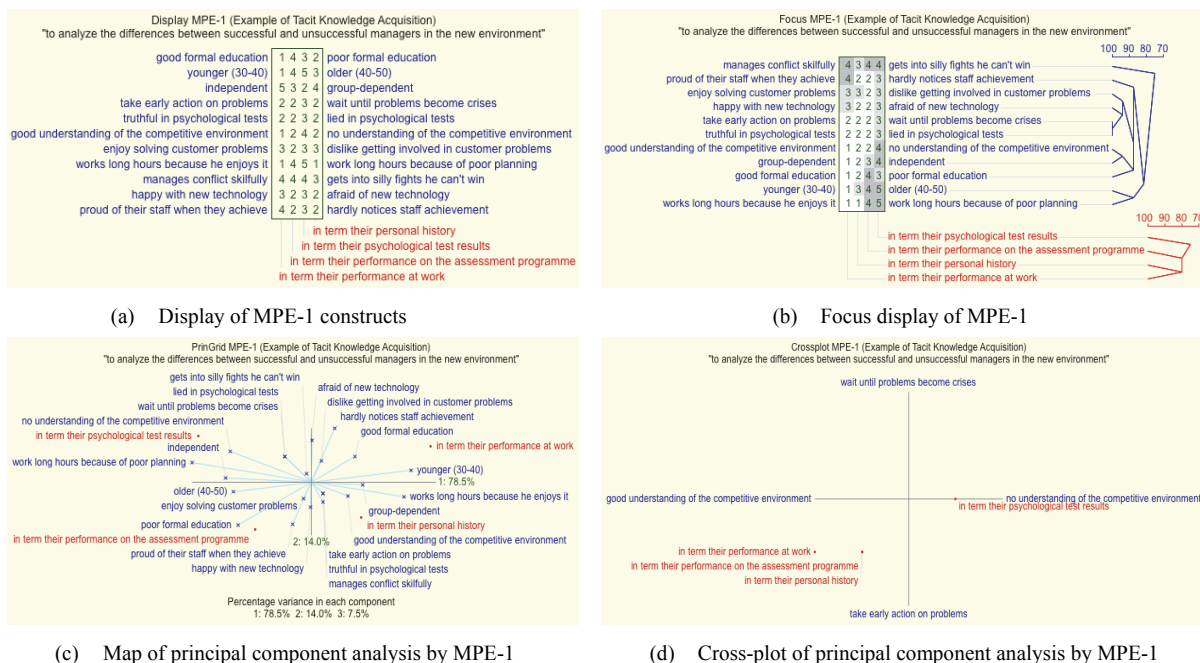


Figure 5. The result of RGT construct the display, focus display, map and cross-plot.

Save and put into the repository as the knowledge to analyze the same case and compare with the other an individual Marketing practitioner's expert (MPE-n).

6. Conclusion

Kelly's Repertory Grid known as WebGrid is an appropriate tool for tacit knowledge acquisition of Marketing practitioner's experts. It is also used for eliciting simple practitioner theory. The examination of the underlying assumptions and objective of framework and method in tacit knowledge acquisition of Marketing practitioner's experts serves a useful critical function by identifying the problem and solving problem rapidly. The understanding of the purposed method employs TKE and MPE capturing and acquiring tacit knowledge of Marketing practitioner's experts. The framework used in the process of acquisition tacit knowledge in the Marketing domain, and it also can be implemented in other work domains.

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