

Human Capital Discovery through Opportunity Discovery with Consumer Behaviour; The Case Study of Indigenous Vegetable Knowledge as Human Capital of Vicinity Community

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Abstract

Human capital (HC) is an intellectual asset that is and referred to knowledge, skills, abilities, etc. which can be considered as knowledge. It needs to be identified or discovered which knowledge can be intellectual assets or human capital which would be resources for income generation and quality of performance improving. Human capital discovery would be conducted through opportunity discovery or discovery theory which is focused on organizational opportunity finding. The discovery would be conducted with several technical supports including consumption behaviour and knowledge map. The knowledge map would be done with several tools including yellow paging, know mapping and social network analysis. The research method would be mixed method. The indigenous vegetable consumption will be conducted with survey research with 300 households Wat Lum Pa Ong community in Nong Chok district. HC discovery processes will be conducted with observation throughout the community, and in-depth interview and focus groups will be conducted with around 10 key informants who are interested in growing indigenous vegetables, and sharing and selling them. The study will use the results of indigenous vegetable consumption survey and indigenous vegetable knowledge map to discover the human capital, and finally the study will propose a plausible HC discovery model.

Keywords : Human capital, Human capital discovery, Opportunity discovery, Consumption behavior, Indigenous vegetable

Introduction

The vicinities of Bangkok have settled as communities, even though some of them are new communities which comprise migrants from several provinces. They have community activities together, such as meetings, activity planning, and visiting each other to share life styles, experience and things. These include food and ingredients for cooking which include vegetables. Some families still grow vegetables, especially indigenous vegetables for their own consumption, sharing and selling as extra income. Meanwhile, most families do not have enough time for planting and have to buy vegetables. However, the sharing and selling vegetables would be taken place within small group of relative and nearby neighbor and some of them buying indigenous vegetable from markets. Thus, indigenous vegetable consumption and mapping would discovery indigenous vegetable human capital of communities. The knowledge would be human capital, because it can improve the quality of life and income of community members the communities. Human capital of the communities would be discovered through opportunity discovery or discovery theory, and knowledge achieved in community. For knowledge of indigenous knowledge, it would include consumption or meal made of indigenous vegetables. Therefore, the framework of this study on human capital in indigenous vegetable knowledge discovery would comprise human capital, indigenous vegetable knowledge, opportunity discovery (discovery theory), consumption behaviour, knowledge map and tool for knowledge mapping.

Objectives

A main objective of this study is to propose a plausible human capital discovery through consumption behaviour and knowledge mapping. For detail, the study has minor objectives of understanding indigenous vegetable consumption and existing indigenous vegetable knowledge of an eastern vicinity of Bangkok.

Literature Review

Human Capital Human capital (HC) is an intangible asset or intellectual capital which is embedded in humans (Baron and Armstrong, 2007). Human capital is considered as knowledge in the form of tacit knowledge including skills, competencies, experience (Hatch and Dyer, 2004) and talents (Davenport, 1999). Furthermore, Becker (1962) considered HC including behaviour, reputation and beliefs. The behaviour is actions and words of people which are the results of their practices, beliefs and ethics (Davenport, 1999). This type of HC is useful for individuals, because organisations do not only considering employees' education and experience when they recruit new employees, but they would also consider behaviour and characteristics that match with particular jobs (Ehrenberg and Smith, 2003). Furthermore, several researchers have considered parents' education, and the education and learning investment of their offspring as HC (Becker, 1962; Baron and Armstrong, 2007). Thus, HC can be viewed in several forms, which can be classified into three types—formal education HC, tacit HC and behaviour HC. Thus, human capital is referred to education, learning materials, knowledge and behaviour. Those can be classified as both tangible and intangible elements, or HC intake in human and HC that people retain in respectively. In terms of community perspective, communities would have particular knowledge and behaviours as human capital that is valuable to communities' members to increase their income or reduce some expenditure, and increase the quality of life. Indigenous vegetable knowledge would be human capital. This is because indigenous vegetables have value added to communities' members.

Indigenous vegetable Knowledge of indigenous vegetables would be considered as indigenous knowledge. This is because knowledge of indigenous vegetables is collective from working, observing and learning for a period of time (Jonjoubsong and Thammabunwarit, 2013). There are the same characteristics of indigenous knowledge which is involved with long-term occupancy in a particular area together with adaptation to local conditions, and passes on to next generations through traditional methods (Sefa Dei, Hall and Rosenberg, 2000). Indigenous vegetables have been sources of food and income for local communities (Jonjoubsong and Thammabunwarit, 2013). Jones (2012) also mentioned that indigenous knowledge is more concerned with plants and animals which encourage communities in food security and sustainable development by promoting self-sufficiency and community strengthening. Therefore, if communities still consumed indigenous vegetables and grow them, they would be human capital of communities' members. This is because knowledge of indigenous vegetable (IV) includes types of IV, growing and harvesting, cooking and eating, and marketing (Jonjoubsong and Thammabunwarit, 2013).

Human Capital Discovery

Human capital discovery is focused on existed human capital investigation in order to find out useful human capital or knowledge that can use for organisation profits or quality of life. Regarding the literature review, human capital management has been focused mainly on human capital creation and measurement. Regarding HC is referred to knowledge, HC discovery would be associated with knowledge discovery, but generally, knowledge discovery has been referred to the process to finding out knowledge from data in database with data mining with rule-base algorithm and knowledge representation techniques (Freitas,

2003). Thus, HC discovery would apply some techniques of knowledge discovery, such as knowledge representation. However, discovering knowledge embedded in human and knowledge that could add values to human, might need more techniques. Researchers argue that HC could discover through representing valued-added knowledge with opportunity discovery or discovery theory. This is because the discovery theory focuses on finding opportunities of organizations to be products or income of organization. However, the discovery processes would need some technologies to support, such as consumption behaviour, strategic map and knowledge map.

Opportunity Discovery Opportunity discovery or discovery theory is concerned with entrepreneurial opportunity searching or new product or service finding in new enterprise perspective. The processes of opportunity discovery can be done thru three steps: disequilibrating shocks, new shocks and opportunity diffusion. The first step is focused on allowing organisational members to review organisations in new perspective. Meanwhile, the second step is concerned with presentation new opportunities to the organisational members, and the last step is concerned with taking the opportunities to be products or services (Eckhardt and Shane, 2003). Thus, the research would use consumption behaviour, strategic map and knowledge map to support the opportunity finding. These techniques would explore business processes or activities of consumers, knowledge sources and human capital of organizations or communities. Corbett (2007) mentioned that the opportunities of organisations could be measured thru human capital and also information which organisations gain and create. Human capital plays an importance role for opportunity discovery, because human capital related to opportunity discovery and nascent entrepreneur development (Davidsson and Honig, 2003). Thus, the human capital discovery model would have opportunity discovery as a prominent component.

Consumer Behaviour Consumer behaviour is concerned with the ways consumer thinking, buying and consuming products or services (Pride and Ferrell, 2010). Customer buying can be divided into three stages; pre-purchasing, purchasing and post-purchasing stage. Pre-purchasing is the first stage of customers' buying decision process. This stage involves customer problem recognition, searching for information of products and evaluating the value of each alternative. Next, purchasing stage is referred to customer decision making in order to buy or select a particular brand, product or service. The last stage of the consumer buying decision process is post-purchasing stage, which consumer starts to examine or evaluate the benefits of the bought products or services. The post-purchasing stage allows customers to aware the value of particular products (Kerin, Hartley, Rudelus and Theng, 2009). In other words, satisfaction and dissatisfaction arise during the evaluation period which are considered as the causes of repeat purchasing or discontinue purchasing.

Furthermore, consumer buying decision is influenced by two factors: marketing and environment. Firstly, marketing or marketing mix includes product, price, place and promotion, which marketers design to activate customers' wants and needs. The second factor is other stimulus or environmental factors, such as economic, politics, culture, and technology (Kotler and Keller, 2007). The environment factors are quite difficult to control. Meanwhile, marketing mix can be designed by marketers to create consumer behaviour to ensure that customer is satisfied and return to buy again.

First, product can be in many forms, both tangible and intangible forms. Tangible product has physical attributes while intangible product can be in the form of services, music, experience, performance, and so forth (Kotler, and Armstrong, 2014). In this study, researcher will only focus on tangible products in the category of consumer products which are goods or

services that consumers buy for household consumption (Ferrell, Hirt, and Ferrell, 2011). This is because this research studies on knowledge of indigenous vegetables. Secondly, price is defined as customer's total cost, both monetary and non-monetary cost, in exchange with particular products/services. Monetary cost or financial cost is amount of money that customer pay in order to obtain a particular goods or service. Meanwhile, non-monetary costs is all costs, such as time, psychological cost, searching cost, that customers make an effort to acquire the products or service. (Grewal and Levy, 2008). Thirdly, place refers to marketing channels that goods or services that have been distributed to customers (Boone and Kurtz,2013). Generally, firm would have at least one channel. To be confident that products or services are distributed to the target market widely, middle man or market intermediary is essential to facilitate the exchange process (Boone and Kurtz, 2013). Lastly, promotion is a marketing tool for communicating between firm and customers. Moreover, promotion also help firm and consumer tighten up the relationship together in order to turn typical customer to long term and loyalty customers (Boone and Kurtz,2013). Regarding complex in marketing communication, promotion mix—advertising, personal selling, sales promotion, and public relations—is necessity to convey all information to the consumers. In other words promotion mix is designed to attract customers to purchase products or services (Ferrell, Hirt, and Ferrell, 2011). Thus, in order to identify the opportunities of community through indigenous vegetables, this research has to study on consumer behaviour and marketing mix of indigenous vegetables that community members buying.

Strategic map Strategic map is a tool to analyse intellectual capital—human capital, information capital and organisational capital—and its processes that could create income or value added for an organisations. The strategic map should include four aspects of business activities—a financial aspect, a customer aspect, working processes and learning processes. The learning processes would focus on representing the intellectual capital of an organisation (Marr, Schiuma and Neely, 2004). In case of use strategic map for human capital discovery, the map should present knowledge, skills and the specific competencies of organisations. This is because Kaplan and Norton (2004) mentioned that human capital is concerned with those elements as resources for activities.

Knowledge Map Knowledge map is a tool to present existed knowledge of an organisations with relation to resource people, working processes and knowledge receivers. Knowledge map can be in four approaches: a conceptual map, a competency approach, a procedural approach and a social approach (Lecocq, 2006). Jafari, Akhavan, Bourouni, and Amiri (2009) introduced that knowledge map can be done with five tools: yellow paging, information flow analysis, process knowledge mapping, functional knowledge mapping and social network analysis. It can be contended that knowledge map would present knowledge and the sources of knowledge which is concerned with knowledge directory (yellow paging), process and activity knowledge mapping which is focused on business processes or functions, and social network analysis. The social network analysis is associated with relationship of knowledge, business processes and resource people. Thus, knowledge map would be a prominent tool to discover opportunities and human capital.

Tool for knowledge mapping Regarding the literature review, knowledge maps would be complex items, because they have to show knowledge with linking to business processes and resource people. Thus, tools to facilitate knowledge mapping would be divided into three groups: knowledge directory (yellow paging), business process analysis and social network analysis. First, tools for knowledge directory (yellow paging) would associate with knowledge location and resource people profiles which could be managed in the form of database management systems or geographical information systems (GIS) that could represent knowledge directory in the form of maps. Google Map or Google My Maps would be a system that can be applied for visualized knowledge directory. Google My Maps is a

mapping service of Google Map that allows user to create content-rich maps or visualized data on custom map, and share to own web applications (Google, 2007). Google My Maps allow developers to create application as mashup web that applications use content and online services (Yu, Benatallah, Casati and Daniel, 2008), quickly and easily pointing and clicking (Google, 2007). Secondly, business process analysis (BPA) is the processes of identification, verification, simulation and performance analysis of business processes. The business process analysis can be conducted in many methods, such as observation analysis and quantitative analysis. The quantitative analysis is focused on mathematical model which mainly applies from operational research to evaluate business processes in two areas—validation or testing business process whether the process has been as expectation, and verification (correctness of the process). Meanwhile, performance analysis is concerned with process ability evaluation. Tools for business process analysis can be diagrammatic models, mathematical models and business process languages (Vergidis, Tiwari and Majeed, 2008). Each method has been supported the business process analysis in different manners. Therefore, use the BPA for knowledge mapping would be used more than one tool. The diagrammatic models would be graphical representation which is a standardized approach, mathematical models and business process languages would support to analyse the process properties.

Social network analysis is a tool to investigate the relational data or structure of social action to present in the form of graph diagram or visualization (Scott, 2000). There are two main types of social network analysis—whole-network analysis and personal-network analysis. The personal-network or ego network is the social network analysis for study the connection of focal nodes to other or alters. The ego network could simplify the issues of the network and be anonymous or respect to the respondents (Borgatti, Everett and Johnson, 2013). Regarding the characteristics of ego network, the ego network would be applied for knowledge mapping. This is because the ego network would present nodes of focal resource people who have knowledge and relationship with alters who have gotten the knowledge from the focal nodes. Furthermore, the ego network could present the attributes of both nodes and alters. Then, the social network analysis technique could the relationship and attributes in graphical diagram with the calculation of the levels of ties in the network (Borgatti, Everett and Johnson, 2013).

Regarding the literature review, the plausible human capital discovery model of indigenous vegetable knowledge would have the components of indigenous vegetable consumption behaviour of community, knowledge map and tools (ICT) for knowledge mapping, and influence each other as a theoretical framework presented in figure 1, this research would address three research questions as following:

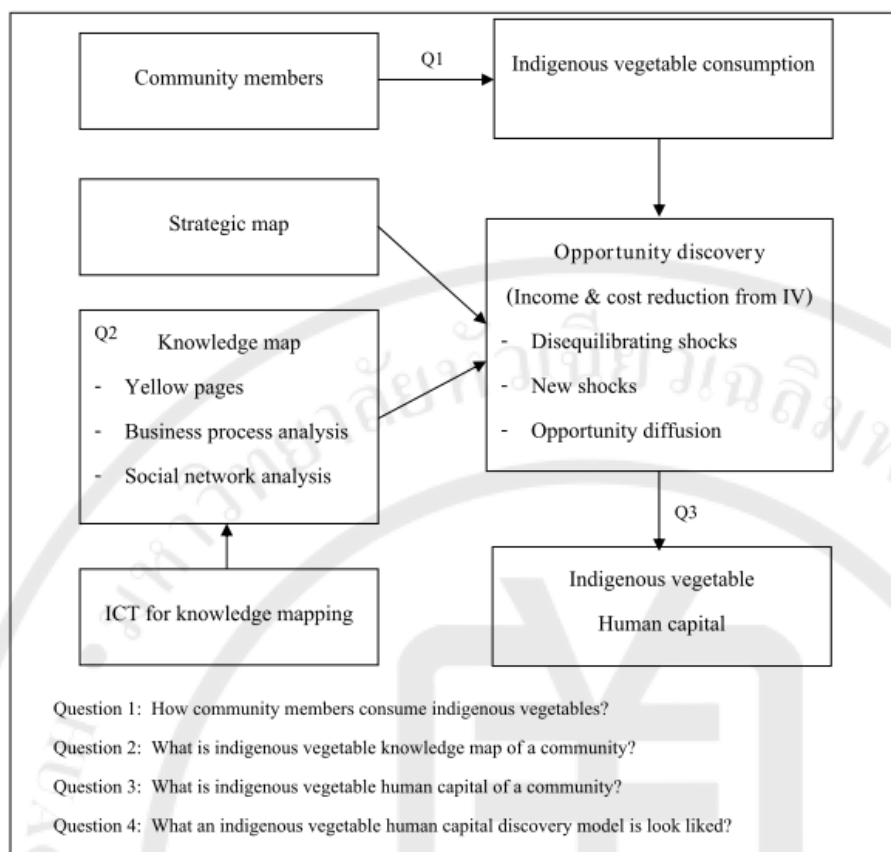


Figure 1 Theoretical framework and research questions

Method

A research site of this research will be Wat Lum Pa Ong community in Nong Chok district, Bangkok which compires around 300 households. This is because this community has families which are interested in growing indigenous vegetable for their own consumption, sharing and selling, and most families would still consume indigenous vegetables. The researchers use mixed research method with survey research and general qualitative research. The survey research will be used for indigenous vegetable consumption study by using questionnaires to collect data from the whole community. The part of knowledge mapping and HC discovery processes will be conducted with observation throughout the community, and in-depth interview and focus groups with around 10 key informants who are interested in growing indigenous vegetables, and sharing and selling them. The data from survey will be analyzed with both descriptive and inference statistic. The data from observation will be analyzed with coding and social network analysis.

Results and Discussion

The expecting results of this research could be divided into three parts regarding the research questions

Question 1: How community members consume indigenous vegetables?

The study would know the indigenous vegetable consumption of the community members, such as what kinds of IV and meal with IV, when they like to consume and when they buy the IV, where they get the IV and meal, and how they consume the IV. The survey would follow consumer buying decision concepts which consumer would be created consumer behaviour over marketing mix—product, price, place and promotion. The results of the survey will provide the types of IV and meal with IV, when they like to consume, when they buy the IV and what the influencing factors for their buying as the mention of Ferrell, Hirt

and Ferrell (2011). The data would shock the community members. This would refer to the process of Disequilibrating shocks of the opportunity discovery.

Question 2: What is indigenous vegetable knowledge map of a community?

To answer this research question, the definition of knowledge of indigenous vegetable could be divided into 4 areas: types of IV, cultivation and harvesting IV, IV meal and consumption, IV marketing regarding the study of Jonjoubson and Nathaporn (2013). The knowledge maps will be created with three types: knowledge directory in the form of map or visualization with google Maps, business process analysis and social network analysis. Knowledge map could present existed knowledge as knowledge discovery technique that require knowledge representation (Freitas, 2003). The business analysis will follow the IV knowledge areas or activities of IV cultivation and cooking. The knowledge map will be used in the steps of disequilibrating shocks and new shocks of the opportunity discovery processes. To answer this research question, researchers would describe how to use information and communication technology (ICT) to develop the knowledge maps.

Question 3: What is indigenous vegetable human capital of a community?

An answer for this question will be indigenous vegetable human capital of a community which will be identified in the areas of IV types, IV cultivation and harvesting, IV meal and cooking, and IV marketing. The knowledge that would be human capital, could improve the quality of life and income generation or work opportunity regarding the human capital concept of Becker (1962). Corbett (2007) also ascribed that opportunities can be viewed from human capital and information that organisations use for new product proposing or new perspective.

Question 4: What an indigenous vegetable human capital discovery model is look liked?

To answer this research question, the researchers will describe the process of human capital discovery used in this study. The components of the model comprises 1) indigenous vegetable consumption, 2) indigenous vegetable strategic map and knowledge map, 3) ICT for knowledge mapping, and 4) indigenous vegetable human capital which represents the processes of finding out valued-added knowledge to the community. This processes would referred to the concept knowledge discovery in general or from data in databases, but indigenous knowledge discovery would require specific techniques. This is be the indigenous knowledge has different characteristics.

Conclusion

In conclusion, knowledge of particular areas that influence an organisation to generate income, reduce cost of particular organizational activities, and increase the quality of life of organizational members could be referred to human capital. The human capital of organisation could be search through opportunity discovery which uses of consumption behaviour theory and knowledge map to support. For knowledge mapping, information and communication technology to visualize and analyse the knowledge, the researchers refers to use google My Maps to create knowledge map, generate knowledge of indigenous vegetable process as diagram and analse indigenous knowledge of community as social network analysis with EgoNet in investigate human capital of indigenous vegetable of the eastern vicinity community of Bangkok.

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