

## CHAPTER 5

### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter analyzes findings from the previous chapter in relation to the participants' demographic information, influential external and internal factors enhancing virtual adoption, potential external and internal barriers inhibiting virtual adoption in hotel management in Chiang Mai province, and the different point of view among managers and supervisors regarding external and internal environmental factors toward virtual implementation. The discussion first provides conclusion then followed by discussion and recommendation, from findings of the quantitative research, concerning three objectives as the following:

1. To explore the potential internal and external factors influencing virtual formation in hotel management in Chiang Mai Province.
2. To examine the possible internal and external barriers inhibiting the virtual implementation in hotel industry, in Chiang Mai province.
3. To compare a difference between managerial and supervisory position on attitude towards the different external and internal environmental factors influencing Virtual Organization (VO) adoption in hotel management.

#### 5.2 Conclusion

As stated earlier, the aim of this quantitative research attempts to analyze the potential factors and barriers toward virtual adoption among the informants who are working in managerial and supervisory level in any hotel departments located in Chiang Mai province. The research started by surveying the possibilities that hotels in Chiang Mai are defined as the virtual potential workplace and conducting pilot test of 30 sets, to ensure any confusion from the new technical terms and organizational model.

There were 186 sets of questionnaire, from total 195 prospective sampling size, account for 95% of the total data collection rate, which are valid for data processing,

during three months of data gathering (January – April 2011). These samples were obtained by using stratified random sampling. Likewise, in this study, several statistical methods have been applying. Exploratory Factor Analysis and descriptive analysis have been implemented for both possible factors and barriers to ensure that the variance in the questionnaire represent the good original data set. Respectively, T-test has been utilized in hypothesis testing #1 and 2 to ensure that two groups of informants (manager/supervisor) perceived similarly or differently, the internal and external factors, adopting the VO in hotel management.

Furthermore, the study has adapted the previous research majorly by Talukder (2003); Hill, Miller, Weiner & Colihan (1998) to answer the research questions of whether the hotel management in Chiang Mai can become VO, considering the related internal and external factors and barriers implementing such model.

Findings (See Chapter 4) can be explained and drawn the conclusion, as follows:

#### **Demographic Information:**

Regarding the respondents information, participants majorly comprised of female, aged between 31-40 years with Bachelor Degree's educational background. Most of them have never worked in any VO before, but throughout the internet/virtual programs, they think that virtual adoption in Thailand is important and are aware of VO implementation worldwide, consecutively.

The informants were mostly work for the back office's related departments, which involve directly to hotel internal management activities (72%). Majorly, they worked for Thai Sole Proprietorship's business for more than 10 years, which presume organizational business model have less impact on the decision of VO adoption among the Supervisors (the majority of the respondents) and Managers.

### **Potential influential factors enhance virtual model:**

In terms of potential external environmental factors in virtual formation, remaining factors from factor analysis are suitable for the data set and have been categorized in two sub-factors: Ex-factor1 (PLEECC) and Ex-Factor 2 (IT), with the value of KMO greater than 0.70 and of Bartlett's is significant ( $p < 0.05$ ).

Overall Ex-factor1 or PLEECC comprised of inclusive 7 components that relate to Environmental & Political factor, Legal factor, Global Economy factor, Customer factor, Environmental and Political factor, and Competitor factor ( $\bar{x} = 3.70$ ).

'Micro-customer factor' ( $\bar{x} = 3.81$ ) has been majorly selected by the informants, since customers need quick and well qualitative customer services, more and more, which VO can fulfill by providing 24/7 supports ( $\bar{x} = 3.87$ ). Likewise, a competitive benefit from VO, positioned the importance of conducting VO in hotel management, in the way that VO swap its investment and employ the saving from traditional work model, on innovative products/services ( $\bar{x} = 3.75$ ).

Furthermore, since there is the shifting from agriculture to information-based global economy ( $\bar{x} = 3.60$ ), and form the new dynamic and flexible organizational model ( $\bar{x} = 3.77$ ) informants expressed the importance of Macro-global Economy factor ( $\bar{x} = 3.69$ ), as one of the potential VO formation factor.

Low capital requirement lessen the cash loss' opportunities for the new entrants, making VO competitive when comparing to Traditional organization (TO) ( $\bar{x} = 3.69$ ). Legal related issues have influenced the decision making procedure of the hotel entrepreneurs well, especially, if the particular country supports companies who perform teleworking ( $\bar{x} = 3.62$ ).

In terms of Ex-factor2 (IT), two major factors have been selected, comprising of ICT and transportation factors ( $\bar{x}$  = 4.12). The majority of the respondents agreed that since there is the positive influence of the technology that made the changes in organizational model ( $\bar{x}$  = 4.23) and mean of communication to be easy across geographic space and time, worldwide ( $\bar{x}$  = 4.22), hence, there is lower commuting activities' necessity, which mean lessen in traffic, car accidents and air pollution ( $\bar{x}$  = 3.92).

In terms of potential internal factors in virtual formation, remaining factors from factor analysis are suitable for the data set and have been categorized in three sub-factors: In-factor1 (RS), In-factor2 (FIRMS), and In-factor3 (Individual), with the value of KMO greater than 0.70 and of Bartlett's is significant ( $p < 0.05$ ).

According to the In-factor1 (RS) sub-group, two components have been discussed ( $\bar{x}$  = 3.72); which are Relational and Structural related factors. Relationally, the informants agreed the most that 'New Information Technology (IT) generates the pooled interdependence, whereby, individuals can work autonomously at an individual level' ( $\bar{x}$  = 3.90), which inspire their feeling of the organization connectedness ( $\bar{x}$  = 3.89), due to the trust enhancement ( $\bar{x}$  = 3.74).

Structurally, 'arrangement of flexible dual-agenda' ( $\bar{x}$  = 3.76), 'stress reduction from flexible workplace and family arrangement' ( $\bar{x}$  = 3.70), 'less employee turnover and absenteeism' ( $\bar{x}$  = 3.67), 'clarity of evaluation criteria' ( $\bar{x}$  = 3.60), enhance the VO and productivity in a virtual setting' ( $\bar{x}$  = 3.55).

When asked about the potential internal factors of virtual implementation, In-factor2 or FIRMS has covered the sub-factors related to Relational, Structural, Individual, and Management Competencies and Strategic factors.

Employees, especially, the decision makers, would seek for way to reduce their business operating expenditure, when technology become influential in new business model ( $\bar{x}$  = 3.94). Speedy customer service from technological system and means ( $\bar{x}$  = 3.80), and from potential outsourcing firms, make VO more competitive in the

dynamic markets ( $\bar{x} = 3.72$ ). Informants agreed, also, that age may have the impact whether or not to apply virtual model in hotel management ( $\bar{x} = 3.68$ ). Gender wise, men are likely to be more full-time teleworker than female ( $\bar{x} = 3.68$ ). However, a number of respondents believed that intimate knowledge of specific jobs is important for any teleworking positions ( $\bar{x} = 3.59$ ).

Structurally, respondents agree that virtual model facilitate employer to access the best talent worldwide ( $\bar{x} = 3.75$ ) and that VO appeals more small and new firms accessing in the business with low capital requirement and financial risk ( $\bar{x} = 3.67$ ).

The third section of internal environmental factor or In-factor3 (Individual), represented the agreed factors, which are only those related to 'Individual sub-factor' as the influential internal factors adopting VO. Task management attracts virtual experienced workers to telework ( $\bar{x} = 3.17$ ). Gender has become influential on virtual adoption ( $\bar{x} = 3.14$ ). Likewise, the informants agreed that, due to family duties, woman may hardly telework, resulting in slow teleworkers' expansion ( $\bar{x} = 3.06$ ).

#### **Potential external and internal barriers inhibit virtual adoption:**

From the finding, the overall barriers towards VO adoption in the organization represented highly relevant to its formation among Thai hotel industry, in which external barriers ( $\bar{x} = 3.78$ ) influenced slightly more than the internal ones ( $\bar{x} = 3.66$ ).

Regarding the results represents in Table 4.3.1.1, all 7 external barriers, represents high level of barriers inhibiting the informants to adopt VO in their workplace; in which 'Lack of Awareness of IT and Language Skills for New Entrants', signified the highest influence ( $\bar{x} = 3.96$ ).

High cost of telecommunications and virtual related programs ( $\bar{x} = 3.85$ ); unsupportive virtual interface in Thai cultural values ( $\bar{x} = 3.83$ ); low understanding of IT in teleworking field of work and work model itself ( $\bar{x} = 3.82$ ); unreliable IT systems and technical problems ( $\bar{x} = 3.74$ ); high e-business competitive pressures ( $\bar{x} =$

3.73), and legislation restriction in some States ( $\bar{x} = 3.49$ ), were overall rated agree ( $\bar{x} = 3.78$ ).level of agreement.

Similarly, the 8 internal barriers (See Table 4.3.2.1) were agreed wildly as the VO inhibitor in hotel management, in Chiang Mai province. They comprise of 'Lower management focus and willingness to apply VO' ( $\bar{x} = 3.84$ ), 'Internal organizational and cultural barriers from low sharing of best practices and know-how' ( $\bar{x} = 3.81$ ), 'Weak trust-building leading the problems related to team cohesion and mutual goal-achievement' ( $\bar{x} = 3.75$ ), 'Home environment distraction losing work concentration leading low productivity' ( $\bar{x} = 3.65$ ), 'Employees' isolated feeling from low social interface' ( $\bar{x} = 3.62$ ), 'Less self-motivated and sense of belonging' ( $\bar{x} = 3.62$ ), 'Reluctance to share information and knowledge due to low social connection' ( $\bar{x} = 3.61$ ), 'E-commerce high investment but slow return' ( $\bar{x} = 3.42$ ),

**Comparison of Managers and Supervisors' point of view regarding influential external and internal environmental factors, towards VO adoption, in hotel management, Chiang Mai province:**

Regarding the finding related to influential factors of VO formation from T-Test, the finding stated that the different positional background and work experience of the informants, the different perception they have, at the significance level of 0.05, for the sub-factors related to Ex-factor1 (PLEECC), Ex-factor2 (IT), In-factor1 (RS), and In-factor3 (Individual).

Related to Ex-factor1 (PLEECC), managers and supervisors perceived differently when they were asked the influential external factors in VO adoption relating to Macro-Economic factors, Macro-Environmental and Political factors, Micro-Customer factors.

Macro-ICT factors and Transportation related factors were the two key factors differentiating the informants' attitude on VO adoption, in Ex-factor2 (IT).

From the finding, we can summarize that 'There is a different between management and supervisory position on attitude towards the different external environmental factors, in both sub-groups (Ex-factor1, Ex-factor2), influencing VO adoption in hotel management.

In addition, when asked about the potential internal factors in VO adoption, in hotel management, from two different positions, two influential internal environmental factors, towards VO adoption have shown different attitude, at the significance level of 0.05 (In-factor1: RS, In-factor3: Individual).

Structural and Relational factors, can be illustrated in the In-factor1 (RS). The informants have shown different attitudes towards two external environmental factors to VO adoption namely, the 'New information technology (IT) generates the pooled interdependence, whereby individuals can work autonomously at an individual level, and 'Clarity of evaluation criteria enhances the teleworking adoption's probability'.

Individual factor had been the only selective factor, which the informants perceived differently in In-factor3 (Individual), when they were asked whether 'Slow woman teleworkers' expansion is due to family duties'.

### **5.3 Discussions**

As stated earlier, the aim of this research attempts to analyze the potential external and internal factors and barriers, toward virtual adoption in Chiang Mai province, among managers and supervisors in hotel management.

The results review several useful insights: external factors that can be divided into 2 sub factors (Ex-factor1 and Ex-factor2), and internal factors that include 3 sub factors (In-factor1, In-factor2, and In-factor3)

Overall mean of managers perception regarding influential external and internal factors are greater than supervisors, since this role respond well to opportunities, threats, analyze all the available options and make a sound decision which is commensurate with the goals of the organization (<http://www.selfempoweringtips.com>).

From the finding, externally, economic activity of all types is moving in the direction of globalization (Acs & Preston, 1997). Zhouying (2005) supported, the economic and technological gap between developed and developing countries can largely be explained by the gaps in the levels of soft technology and soft environments between the two sets of countries. As a result, responding to the increasing de-centralization and globalization of work processes, many organizations have responded to their dynamic environments by introducing virtual teams that collaborate by communication technologies across geographical, temporal, cultural and organizational boundaries to achieve common goal in their organizations outputs (Ebrahim, Ahmed, & Taha, 2009).

Furthermore, internally, 'flexible dual-agenda, flexible workplace and work related arrangement', and 'clarity of evaluation criteria', enhance the company productivity and HR performance, namely, low employee turnover and absenteeism rate. The previous studies by Cueni & Seiz (1999); Stough & Button (2006), supports well that flexible work location and time, can support well the achievement of business objectives, no matter where the teleworkers are working virtually in different geographic areas. Although new IT generates the pooled interdependence and significant autonomy, trust enhancement benefit the success of VO adoption, since it creates organizational connectedness inspires the employees with a feeling that there is a strong virtual leadership and community that they can rely upon for support and information. As a result company can retain well employees worldwide. The same finding has been supported by Bailey & Kurland (2002); Harrington & Ruppel (1999), that trust is a key element that influences the quality of electronic communication which influences the success of a VO; enhancing employee performance and reducing turnover intentions. In-factor3 (Individual) is relevant with Individual sub-factors,



solely. Task management attracts virtual experienced workers to become teleworkers, since they are less concerned about the uncertainty and ambiguity surrounding, resulting in long-term positive outcomes (Graen & Scandura, 1987).

Since the majority of the respondents are from non-teleworking background (71%), this study includes therefore the separate finding of those with previous partial and full background in VO to enhance the tangible outcomes.

Furthermore, this study defined barriers into external and internal constraints inhibiting virtual adoption, in which external barriers are highly selected as the major inhibitor of adopting virtual model in hotel management. The major influential ones, in this study, are that deficient IT and language knowledge and high cost of telecommunications and proprietary software, delay the virtual adoption decision. Likewise, other external barriers are supportive from the respondents. Similar study has been conducted and shown that lack of awareness in IT and language skills, available for the new entrants into the labor force, is a major barrier to the take-up of teleworking ([www.irlgov.ie](http://www.irlgov.ie)). Also, technology limitations are often commented by the prospective employers of teleworkers; inadequate and/or too expensive to be supportable (Geisler, 2002; Stough & Button, 2006). The finding has been supported well by Badrinarayanan & Amett (2008) that sometimes teleworking requires complex technological applications, that can become the drawback of VO.

However, from the separate finding of the experienced teleworkers, it is interesting to learn that the major inhibitors are totally distinct. Unreliable systems and technical problem and Thai cultural values are the key components that they perceive will restraint the virtual adoption in hotel management. Since many business transaction can be failed and lose confidence by the users, once there is low assurance of data privacy and customer personal information (Franker, 1994). Also, due to the number of technical problems; unreliable systems and incompatible networks, virtual model discourages the entrepreneur to implement such idea fearing of less productive and employees' frustration (Kimble, Li, & Blanchflower, 2001).

Related to Thai cultural values, it is visible that Thais may get used to with the normal practice of face-to-face interaction rather than virtual, due to the reliability issues; trust and security information and the low awareness of IT skills and the usage of Internet. The previous study can be well represented that 'forming and performing in virtual teams is useful for projects that require cross-functional or cross boundary skilled inputs and the key to their value creation is to have a defined strategy in place to overcome the issues highlighted, especially the time zones and cultural issues. While communication could be seen as a traditional team issue, the problem is magnified by distance, cultural diversity and language or accent difficulties.' Likewise, Lee-Kelley and Sankey (2008) found that for migration or similar large-scale projects, personal project management competency, appropriate use of technology and networking ability, willingness for self-management, cultural and interpersonal awareness is fundamentals of a successful virtual team (Lee-Kelley and Sankey, 2008).

Regarding the internal barriers, major selective ones among the informants, are the lower management focuses or unwillingness to apply virtual model, and the low sharing of mutual values and assumption, between diverse cultural team members. Many studies support this notion, since the managers are the key stakeholders and decision makers in the effectiveness of teleworking arrangements; management resistance to implement telecommuting programs can result in easily the failure in implementation (Watad & Disanzo, 2000; Scholefield & Peel, 2009). The study of Ebrahim, Ahmed, & Taha (2009), related to virtual teams, indicated that 'organizational and cultural barriers are another serious impediment to the effectiveness of virtual teams. Many managers are uncomfortable with the concept of a virtual team because successful management of virtual teams may require new methods of supervision (Jarvenpaa and Leidner, 1999)'.

Nevertheless, 29% of the respondents with virtual experiences agreed that home environment distraction and problems related to trust building influence largely the virtual adoption in hotel management. Distraction from noises and not the right work

space may lessen the overall working performances and the productivity of the teleworker. Moreover, lack of trust draw easily the conflict among the virtual team, since there is low social connectedness and cohesion (Fukuyama, 1996; Stough, 2006), hence, trust can be the greatest challenge in virtual success, if virtual team leader manage the trust building well. Likewise, similar finding was found when there is 'lack of visibility may cause virtual team members to feel less accountable for results, therefore explicit facilitation of teamwork takes on heightened importance for virtual teams (Massey et al., 2003).'

When comparing the difference between management and supervisors' perspective toward the influential external and internal factors adopting virtual model in hotel management, Ex-factor1 (PLEECC), Ex-factor2 (IT), In-factor1 (RS), and In-factor3 (Individual), are the results from the finding that show the significance level of 0.05.

Externally, two different groups of informants perceived VO differently in terms of macro-global economy related factor, macro-ICT infrastructure and macro-competitor related factors. Contrarily, they perceived that 'the shifting economic pressures have invented new organizational forms of teleworking', that 'technological advances make the Traditional Organization (TO) change its business structure, and that 'less capital requirement is used in forming VO'.

Externally, economic activity of all types is moving in the direction of globalization (Acs & Preston, 1997). Zhouying (2005) supported, the economic and technological gap between developed and developing countries can largely be explained by the gaps in the levels of soft technology and soft environments between the two sets of countries. As a result, responding to the increasing de-centralization and globalization of work processes, many organizations have responded to their dynamic environments by introducing virtual teams that collaborate by communication technologies across geographical, temporal, cultural and organizational boundaries to achieve common goal in their organizations outputs (Ebrahim, Ahmed, & Taha, 2009).

Internally, managers and supervisors expressed the importance, in different significant level, that 'Clarity of evaluation criteria enhances the teleworking adoption's probability and; New information technology (IT) generates the pooled interdependence, whereby individuals can work autonomously at an individual level'.

#### **5.4 Recommendations**

Given the impressive growth and development of virtual organization in the new technology era, it is vital important for hotel management to adopt and understanding of the internal and external environmental factors influencing virtual formation in hotel management as well as to understand the internal and external barriers inhibiting the virtual implementation. The findings revealed several useful insights especially some differences between managerial and supervisors differ significantly in their views of internal and external barriers. In addition, management teams can use the results of the current study to assess the current VO adoption of their organization. And then determine if specific barrier need to be reduced and augmented.

#### **Implications of Virtual Organization Practices:**

1. In order to set up the VO successfully in the business industry that are not fully designed virtually since the first stage, the decision makers should weigh whether or not the influential factors and barriers from the finding would be matching to the their business industries.
2. Hotels personnel in different provincial workplace, and work team may encounter the similar/dissimilar barriers in VO adoption, therefore, it is important that decision makers should utilize both outcomes from the non-teleworking and teleworking experienced respondents.
3. Since virtual idea in Thailand is still very much underutilized, it is advised from the study and findings, that hotel business, especially in Chiang Mai, who has perceived the usefulness of the VO and the potential barriers of the virtual implementation in

hotel management, can continuously develop their future sustainability prior to the decision whether or not they will apply such business practices, or even implement partially or fully.

### **Implication for Scholar:**

1. It is strongly recommended that the study is developed for long run and thoroughly other potential business and different nature of works that could probably apply virtual model partially or fully.
2. Since studies in VOs in Thailand is very limited and is only specified in IT business, it is therefore suggested that virtual benefits and its dissimilarities with traditional organization will be useful and beneficial not only for the small firms, but well-structured business.
3. Further testing of the study is required for more thorough and insight opinion of the managerial levels, and thus it is strongly recommended that all the documented data in this study should be the base of the further analysis.

As expected since the beginning of the study that various forthcoming researchers may be beneficial from not only their own business, but also any future study in hotel and other industry.

- From the study, hotel entrepreneurs can learn that there are several factors and benefits that could attain from this business model, by concerning some potential barriers they may confront and may need to find the solutions to cope up with prior to the adoption.
- Any business owner can feel that there are several types of VO that they can start adapting and can learn that many key significant finding especially financial reason, could benefit them, as the new entrants.
- New comer in the virtual business can learn the way to avoid external risk, by having heftily and specially more awareness of IT and language skills, by

finding way to reduce the telecommunication costs, by researching the legislation related to unsupported home-based work, respectively.

- For both existing and the prospective business entrepreneur, internal barriers are controllable and should be well prepared to lessen the issues mainly related to low management focus for virtual team (VT), and cultural issues in the diverse global virtual team (GVT), respectively.

### **Delimitation**

Since this study is aimed to survey in some zoning (Chiang Mai) only, which the principles may or may not be applicable in other area of the country or even upcountry. However, the reason we need to follow the previous researches from Japan and the US is mainly because we rarely have any useful and updated information that would be closely adapted in Thailand.

Moreover, the managers and supervisors in any part of country may be influenced and motivated by organizational culture differently or even by different social lifestyle, the perspectives and attitudes may not be, hence, valid for any similar position and similar business industry, to fully apply the Theoretical Framework, from this study.

### **Future Research:**

This study applied the quantitative oriented method. Thus the findings should be verified with qualitative methods and enhanced with focus group discussions with the managerial and supervisory levels to gain more insight information related to the potential factors and barriers of VO success and failure. Also, since this study aims especially on hotel management in Chiang Mai province, not other provinces neither other business fields, the internal and external factors and barriers may be distinct from this study. However, it is noticeable that organizational cultures do not have the direct impact on the way people perceive the VO model, but the positions in hotel, therefore, the matter of different ownership type may impact the least and not considered as the major factor to consider.