

ORGANISATIONAL LEARNING THROUGH AGILE WORKING  
APPROACH

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by

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## Abstract

Although agile working has been widely accepted in software development practices in Thailand, the extended usage of agile working in non-development environments was still limited. The study aimed to understand the effects of agile working implementation in a small Thai organisation. The action research initially focused on investigating three impacts of agile working on reflective practices in the organisation, culture integration and ecosystem business model innovation. However, an integrated learning framework emerged from the meta-reflection process.

Agile working was introduced to sales and project implementation units. The data was collected over 20 months. Participant observations, both physical and virtual, were the primary data collection approaches in the action research study. Additional data collections to support the analysis were from informal interviews and documents. Then coding and data analysis were done through NVIVO 12. A cross-case analysis was used to find themes and relation between agile working and its results. Nine themes emerged from the analysis.

Nine themes reflected the change dynamic and the Company culture evolution. An agile change model was synthesised from the relationship between the nine themes throughout three action cycles. Then, meta-reflection was used to understand an integrated learning mechanism of agile working.

The study informed that agile working helped the Company increase reflective practices in the organisation, evolve its culture, and innovate its ecosystem business model. Agile working did provide intended results and consequences of the actions, as power relation emerging as the critical factors stimulating both intended and unintended results. After 20 months, while the Company successfully stimulated reflective thinking among employees, expanded the sales ecosystem, and implemented the agile projects, the interactions from agile working unintentionally changed employees' motivation and sharing attitude, which the Company needed to manage after the thesis period.

A vital outcome was developing an integrated learning framework to understand dynamic organisational development from agile working implementation. The integrated learning mechanism in an agile environment demonstrated how reflective practices and double-loop learning contributed to continuous organisational development. In addition, the integrated learning framework provided insights into how agile working facilitated second and third-

person learning. As a result, the integrated learning mechanism of agile working helped the Company to sustain its organisation development. The study also suggested potential areas of studies to understand the meta-learning mechanism of agile working.

### **Declaration of own work**

This Action Research Thesis is the result of my original research. I also confirm that the research has never been submitted for any degree requirement and examination. All material used in the research has been appropriately cited and acknowledged.



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# CHAPTER 1 - INTRODUCTION TO THESIS

## 1.1 – INTRODUCTION TO CHAPTER 1

The thesis is to study the effects of agile working on managing a small IT company in Thailand. The study focused on implementing agile working in client-facing units to deliver client values. The thesis derived an integrated learning framework that could help to sustain the Company's organisational development.

Chapter 1 provides the research background. The chapter lays the basic understanding of the studied organisation, the uniqueness of the research. From there, the chapter addresses three focused research questions. Lastly, section 1.4 provides an overall thesis structure.

## 1.2 – RESEARCH BACKGROUND

### 1.2.1 – ORIGINATION OF THE RESEARCH

Realised the benefits of the action-oriented practices, I decided to establish a company that could utilise them. I leveraged my IT consulting experience to start the Company. The co-founders consisted of my colleagues and former clients who were senior management in banks and IT organisations. The objective of the establishment was to leverage co-founders' knowledge and connections to capture opportunities in Thailand. We successfully sold a Factoring Solution to a Thai bank. So, I introduced agile working to the Company's client and project management operations.

During the problematising, we identified two working-style conflicts that prevented the Company ability to respond to changing business environment: among the co-founders with different backgrounds and between the Company and the bank. Because the co-founders came from different company cultures, working styles among the co-founders created difficulties in the Company operations. For example, most executives, who used to have more than a thousand subordinates, found difficulties doing tasks themselves in the small company environment. Those executives were used to a traditional silo-style of work. In the new Company, the executives must think out of the box and comfortably took responsibilities beyond their comfort zones. The Company working style was also not aligned with the bank working style. The client organisation consisted of junior employees who were vocal and more aggressive. Most co-founders were uncomfortable by being challenged by the client employees because most executives inherited a seniority culture.



Problematisation was the methodology used to identify proper actions for the research. Through the methodology, I examined assumptions underlying my practices and theories in use (Alvesson and Sandberg, 2011). Several theories examined included business model and business model innovation, change management theories and agile methodologies.

In the beginning, I examined my assumptions in incorporating the Company, understanding problems and identifying actions. Then I used the literature review to refine my problematising processes. During the literature review, I challenged assumptions behind the literature to arrive at the business model to pursue.

Additionally, the client engagement dynamic influenced the problematisation and action selection. To pursue the identified business model, several actions came into consideration. For example, we could combine traditional project implementation and account management in the action research. Because the Company was newly established, it was impossible to win a big project with the client. The client set a standard procedure to procure a strategic project. Evaluation criteria in the bidding favoured established companies with successful implementation track records. We proposed the project as an experimentation approach for the client to test the agile initiative to get around the limitation. The approach helped the Company to win the project. Finally, we won the project through a hybrid implementation approach, combining agile and traditional implementation method—the hybrid project initiated further reflections on periodic and dialectic changes, which led to the selection of agile working as the proper actions.

We expected agile working to achieve two main results. The first one was to contribute to the sustainability of the Company. The senior co-founders planned to transfer knowledge and train the junior co-founders. So, the junior co-founders could lead the Company in the long run. The senior co-founders could gradually retire and receive healthy passive income from the dividends. The second objective was to use agile working as a change mechanism to blend different cultures inherited from various backgrounds. We expected the blended culture to become a new company culture.

The Company agreed to introduce an agile working style into the Company operations. The selection of agile working considered both practitioner and academic perspectives of the agile method. The combination of both perspectives helped to increase the chance of success from the agile working introduction. The academic perspective of agile work helped to ensure that personal learning, organisation learning and culture change were attainable from the

implementation. Agile working helped to stimulate reflective thinking and culture integration. Because the Company comprised of diverse team members, each member inherited different working cultures. So, the Company needs to find a way to stimulate interactions among the team members. The iterative technique in agile working forces interactions (Lindvall et al., 2002) and stimulated reflective thinking among the agile team members (Babb et al., 2014). According to the Satir model (Banmen, 2002), both interactions and reflections impacted a person's feeling, perception and expectation, leading to possible deep-level changes. The changes also impacted social practices within the agile team. Thus organisation learning could be the result.

The practitioner perspective helped with the acceptance of agile working from internal stakeholders. The practitioner perspective behind agile working as the action was related to agile popularity in software development practices in Thailand. The client required the Company to utilise an agile methodology in the project. The client would like to test an agile methodology concept before enforcing more prominent vendors to implement all the project at the client in agile ways. Introducing agile working was easier accepted among the Company management and the client management teams. The two reasons gave the management basis to implement agile working in both sales and implementation project.

Since agile working was increasingly adopted in the software development community, the introduction of agile working was not awkward to gain the executive committee buy-in. I also introduced a reflective element usually under-practised in most agile software development projects (Babb et al., 2014). The under-practising of the reflective element in agile development projects was from the time-to-market pressure to deliver customer values. Thus, reflection and learning can be forgotten in the core agile focus (Babb et al., 2014). Most agile projects focus on productivities and improvement instead of reflection and learning. The reflective practice cycle in agile working was communicated and well valued among company management. Thus, the management decided to introduce agile working in both implementation projects and sales management function.

### 1.2.2 – RESEARCH UNIQUENESS

The research was planned to study the effectiveness and impact of agile working in the project implementation and sales management environment in a small start-up company in Thailand. The research also embedded a reflective practice aspect to agile working implementation, which was under-emphasised in traditional agile development projects (Babb et al., 2014). In

addition to the embedded reflective element, the research was unique in several aspects of the research context, as follows:

- Agile working was introduced to a start-up company with retired entrepreneurs without start-up experiences (Deligianni et al., 2020).
- Agile working was introduced to the sales organisation (Chonko and Jones, 2005) and application implementation project (Chopra, 2014), non-software development environments.
- Agile working was introduced to client-facing environments, unlike traditional non-client facing agile development projects (Denning, 2016a).

### 1.2.3 – SIGNIFICANCE OF THE RESEARCH

The prime beneficiary of the research was the Company. The research aimed to help the Company to sustain its business. The research was initially planned to study the agile working in a small technology company's sales and project implementation functions. However, the finding from the research helped us to learn beyond the objective of agile working. The learning extended benefits to border groups.

#### First-Person Learning

- The benefit to my learning and development: I could practice the reflective practices learned from the DBA course work in real action research. The two cycles of action research methodology, the action research cycle and the action research thesis cycle could be applied to my living lab in my Company. My learning from the DBA coursework could be transformed through the reflective practices into my personal development to reveal my full potential.

#### Second-Person Learning

- The benefit to organisational learning: Right from the Company starting, the reflective practices could help the organisation members learned to work collaboratively in an integrated culture environment. The reflective practice was expected to help the organisation developed into an ecosystem-based environment.

## Third-Person Learning

- The benefit to a start-up community: The thesis was also expected to extend the finding beyond first and second person learning through a synthesis process. The meta-learning could point out agile working as a source of dynamic organisational learning for small start-up companies. The meta-learning from agile working could be a new actionable knowledge for the start-up community.
- Benefits to an academic community: The result of meta-agile learning could lead the academic community to learn. While there was little research in agile implementation in a power-dynamics environment, meta-learning could be the starting point for the academic community to synthesise new actionable knowledge.

## 1.3 – ACTION RESEARCH

### 1.3.1 – RESEARCH QUESTIONS

During the establishment of the Company in 2018, We recruited key executives with the required capabilities. The defined capabilities included banking industry knowledge, software development, hardware and IT operation, sales capabilities, management consulting and entrepreneurial skills. Therefore, the new Company has become a melting pot consisting of executives from traditional banks, local software companies, international software companies and a start-up company. The diversity of the key persons has come with a diversity of corporate cultures. During the honeymoon period, the melting pot culture worked fine. Later, there was a foreseeable cultural conflict between a traditional conservative corporate and a fast-moving entrepreneurial culture. The different cultures impacted the internal working style and impeded the Company's vision to participate in a client's ecosystem.

The problematisation process impacted the evolution of the research questions. At the beginning of the Thesis, I perceived that the Company's problems were differences in founders' personalities. So, I focused the inquiry on the impact of agile on uncertainty avoidance and power distance. I hoped that agile working would reduce the differences and strengthen organisational capabilities. Reflections during the action cycles, I reframed the problem and the research questions. Eventually, the action research was designed to answer the research questions detailed below:

- Firstly, how can I improve the reflective practices through agile working implementation?

- Secondly, how can agile working integrate several cultures inherited from several leaders?
- Thirdly, how can the Company co-evolve with the client ecosystem in the long run through agile working?

### 1.3.2 – HIGH-LEVEL RESEARCH METHODOLOGY

As mentioned in section 1.2.2, the research focused on implementing agile working in two client-facing units: sales and implementation. Both are non-development client-facing units. The research studied the impacts of agile working throughout a 20-month period, which aligned with a core project implementation at a client site.

The research followed the action research methodology where two cycles of research ran in parallel: core action research cycle and thesis action research cycle. Both followed a construct-plan-action-evaluation iteration approach (Coghlan and Brannick, 2014). The data collection approaches borrowed participant observation techniques in ethnography and netnography methodologies to minimise interruptions to day-to-day works. Besides physical participation in the day-to-day work, netnography embedded observations through a social media communication lens, where texts, pictures, emojis captured interactions of the participants. Additional data collection techniques were utilised as supplements to participant observations, including documentation and informal online interview. Data analysis techniques followed Bazeley (2013) approach in open coding, code categorisation, pattern identification, two-level cross-case analysis and concept synthesis. Critical reflection and meta-learning were used to synthesise actionable knowledge learned from the research.

### 1.3.3 – MY ROLES IN THE ACTION RESEARCH

My roles in the research were different from traditional management research, where the researcher takes a neutral role. In the action research, I assumed both the researcher and a research participant at the same time. I was a manager with authority to influence how other research participants acted. At the same time, I was a researcher who observed and collected the information. My dual role made the research non-value free. Reflexivity was needed, especially during the data analysis. I will fully address the impact of my dual roles in Chapter 2.

#### 1.3.4 – EXPECTATION FROM THE ACTION RESEARCH

The empirical analysis was expected to help us develop a meta-learning mechanism from agile working. By attending to interactions among team members, the research explained the effects of reflective practice contribution in personal and organisational development. Agile working provided an environment for reflective interactions, which were expected to initiate individual and organisational learning. The reflective practice helped advance the learning process toward individual and organisational development. The reflective practice inevitably creates power-relation disruptions in the organisation (Mantzoukas and Jasper, 2004). Lastly, the complex responsive interaction nature contributed to developing an integrated learning framework in an organisation.

#### 1.4 – THESIS STRUCTURE

The research was to study the impact of agile working in the Company reflective practices, culture integration implementation and the Company ecosystem evolution. The Thesis followed the action research methodology, comprised of two research cycles: the action research cycle and the action research thesis cycle. The two cycles represented the bridging of the practitioner and academic world.

Chapter 2 starts with the overall methodology used in the Thesis. The methodology discusses an action research approach to the organisation study. The methodology includes how data collection was designed and executed, how the collected data was interpreted, how the actionable knowledge was created, and the actionable knowledge from first, second and third-person learning points of view.

Then, the Thesis discusses the literature contributions to the understanding of the organisation issues. The literature review in chapter 3 was presented differently than a typical PhD thesis. In a PhD thesis, the literature review serves as a theoretical gap spotting. Once the knowledge gap is identified in the literature, the research methodology is designed around the gap. In contrast, in action research, the focus is on actions that can solve organisational problems. Therefore, the literature review is served as a source of problematising activity to understand the organisation issues. Then actions would be planned and executed. The literature review serves as the input into the planned actions in alignment with the action research cycle.

Chapter 4 addresses the actions from a practitioner point of view. The chapter serves as the action research cycle in the action research methodology. The chapter discusses the planning

of actions in each cycle and the transition from one cycle into the next cycle. The transition focus and actions were derived from the reflective discussion among the management team. After the action was taken, management reviewed, evaluated and plan corrective actions for the next cycle.

Chapter 5 addresses the thesis cycle from the academic points of view. The chapter discusses finding and learning from the qualitative data analysis process.

Chapter 6 reflects on the three research questions: reflective practices in the organisation, culture integration effort of the agile working, and ecosystem evolution. The three research questions' reflection helps us understand actionable knowledge creation from the first- and second-person learning. The last part of the chapter addresses the generalisation of the action knowledge through meta-learning and meta-synthesis and the Company's performance after the Thesis.

## CHAPTER 2 – METHODOLOGY

### 2.1 – INTRODUCTION TO CHAPTER 2

The methodology chapter comes before the literature review chapter because it intends to provide a background of the action research cycle, including planning, acting, evaluating and reflecting activities. The literature chapter provides a problem constructing point before feeding into the planning activity at the start of the thesis (see Figure 1).

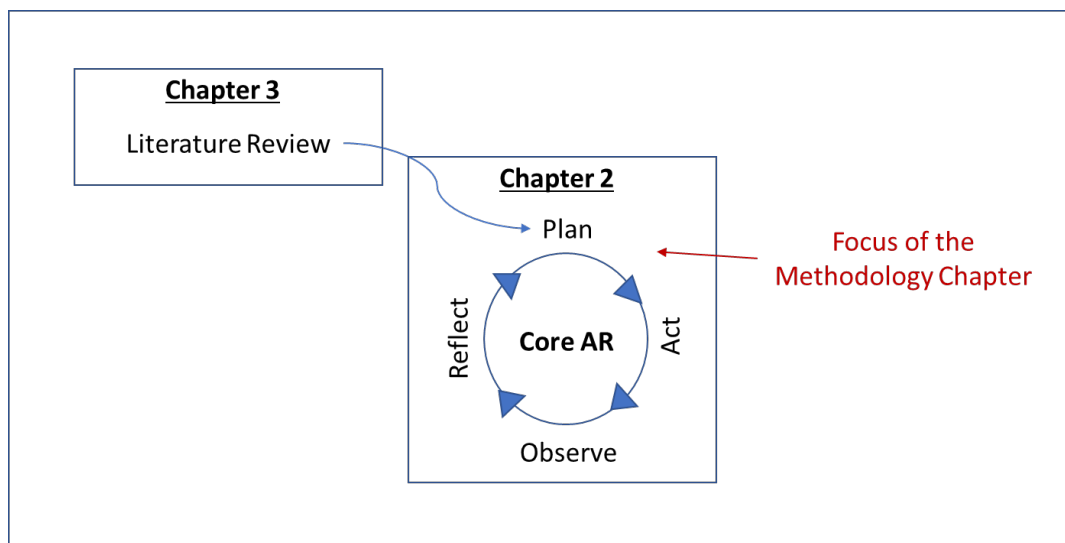


FIGURE 1: FOCUS OF CHAPTER 2

Chapter two focuses on the methodology to effectively execute the action research to understand agile working in the Company. The agile works aimed to achieve three objectives: to improve reflective practices in the organisation, integrate different cultures inherited from the diversity of key executives, and help the Company become a trusted partner of the client.

Chapter two begins by describing the research context to set a basis for action research selection. The following section will address the action research design strategy, including how the action cycles were designed. Then, the chapter discusses approaches to data collection. The data collection was designed to match the participants' day-to-day activities to minimise the interruption of business-as-usual operations. After the data collection approach, the chapter moves into how to analyse the collected data. Data was organised to match the Qualitative Data Analysis software (NVIVO). NVIVO was used to facilitate the analysis of the data. Lastly, the chapter address meta-synthesis approach to deeper understands the finding of the research.



## 2.2 – RESEARCH STRATEGY AND DESIGN

### 2.2.1 – RESEARCH PHILOSOPHICAL CONSIDERATION

The management decided to introduce agile working to the Company operations, primarily in sales and project management functions. By introducing agile working to the Company operations, management must change their working style from big corporate tradition's managing-by-controlling to start-up's managing-by-participating. Instead of using KPIs and dashboards to control the Company, management can understand the Company working dynamic from participation, collaborations and group reflections among the working teams.

The nature of interaction and collaboration in agile working reflects a complexity paradigm. My research inquiry focused on interpreting hidden and unspoken information through reflexivity (Easterby-Smith et al., 2015). So, I decided to adopt the social construction epistemology to action research. The social constructionist action research stimulates the co-creation of actionable knowledge (Alvesson and Sandberg, 2011).

Agile working's reflective nature helped research participants understand and critique the existing belief and underlying management assumptions. An engagement research approach was designed to stimulate interactions among members from different cultures through a social construction mechanism. Rigour can coexist with relevance in social constructionist-based action research. So, agile working leads to a localisation of the research and an actionable knowledge co-construction. Through co-creation, changes could be achievable from personal and organisational aspects (Alvesson and Sköldberg, 2009).

Action research was selected as the research methodology, which was to understand the nature of the organisation from trying to change it (Coghlan and Brannick, 2014). The introduction of agile was how I introduce the changes to the organisation. So, an (insider) action research (AR) is the most appropriate research method for the thesis (Coghlan and Brannick, 2014). The action research effort also provides a co-generative learning approach for both researchers and research subjects to change, learn and improve.

### 2.2.2 – ACTION RESEARCH

As described by several leading action research experts, action research focuses on practice, change, problem-solving, participation and a non-linear research process (Coghlan and Brannick, 2014; Costello and Costello, 2011; Levin and Greenwood, 2007). Action research is a management research methodology that helps practitioners inquire and understand their

professional practices (Costello and Costello, 2011). The cyclical nature of 'plan-act-observe-reflect' activities in action research provides mechanisms for professional to changes and improve their practices (Costello and Costello, 2011). The reflective nature of an action research methodology provides a mechanism to merge the rigour and relevance aspects of management research (Badger, 2000).

Coghlan and Brannick (2014) further integrate action science and learning into the action research cycle. Reflective practices can be incorporated into each step of the 'construct-plan-action-evaluation' cycle. We attend to our experience in each sense detected; then, we inquire about understanding the experience. Upon the understanding, we reflect upon and judge our understanding and decide for further actions to be taken. Thus, the reflective practice makes action research ongoing and non-linear.

The reflective practice also guides three levels of reflection: content, process and premise (Coghlan and Brannick, 2014). At the visible level, content reflection allows practitioners to understand the situation; why the thing happens. Practitioners perform content reflection in the day-to-day routine. A deeper level of reflection, process reflection, switches practitioners' focus from the observable issues to how they solve them. The process flows from problematisation activities to executing an action. Both content and process reflection contribute to single-loop learning (Schön, 2016). The third types of reflection, premise reflection, provides the deepest level of reflection. The premise reflection helps the practitioner reflect upon their reflection. The reflexivity nature of the premise reflection is the sources of rigour and relevance in the action research method. The premise reflection guides practitioners to understand their tacit knowledge or theory-in-use. Reflexivity provides insight into understanding organisational culture and leadership development (Mahadevan, 2011; Orr and Bennett, 2009).

In addition to the three types of reflective practices, I applied the principles to both the core action research cycle (AR) and thesis cycles (Zuber-Skerritt & Perry, 2002). The core AR focused on the introduction of agile working along with the Company's engagement processes. The thesis cycle focused on analysing and writing up the action research thesis paper. In the core action research cycle, reflection-in-action played an essential aspect of problem-solving and team learning. During reflection-in-action, the team learned to reframe the issue and approach action accordingly (Schön, 2016). The reflection was mainly used during participation in the research environment. The reflection-in-action was a primary tool to

reframe the situation and reflexivity of our assumptions (McIntosh, 2010, p. 52). Reflection-in-action also initiated organisation changes from the implementation of agile working. Asking questions to stimulate reflection-in-action and reframing a situation was the primary intervention method during the sales and implementation meeting. The reframing exercise was the source of the following steps and actions for both sales and implementations. Besides, the intervention also influenced and generated additional data for action research (Coghlan and Brannick, 2014).

Reflection about actions was used in both core action research and action research thesis. In the core action research, the reflection-on-action was used primarily in a regular team stand up meeting to help the team to reflect on their activities and collaboratively create actions for each situation. Reflection-on-action also provided a learning mechanism for the team. The reflection-on-action contributed significantly to the action research thesis cycle to understand the meaning of observations and underlying drivers from research participants' points of views (Boden et al., 2011). The reflection-on-action provided insight into the analysis of collected research data. Moreover, the reflection-on-action guided group learning during a regular team meeting. For example, the sales team learned about the politic that the project team faced. At the same time, the project management team learned to utilise sales to manage customer expectation.

### 2.2.3 – DUAL ROLES IN THE INSIDER ACTION RESEARCH

In addition to my Managing Director role, I was in charge of the customer engagement function. The positions empowered me to influence interactions among employees in the Company. As the action researcher, I must be aware of my roles, which could intervene in the data cocreation and collection activities. My research activities could be misunderstood as management interventions. The misunderstanding could impact employee's reactions which could, in turn, affect the data generation. My dual roles initiated complex responsive processes, which led to a non-value free research environment. So, my dual roles made the action research complex and challenging.

The non-value free nature of the thesis required attention to the ethical concerns in the action research execution. Stakeholder frustrations and communications were carefully managed to ensure low impacts on employee morale and job security. Communication must be in simple English, and research participants must be voluntary. Participants could withdraw from the

research at any time. Informed consent and a control mechanism were designed and approved by the university ethical committee before the data collection activities.

Another potential issue resulting from the role duality was from my prior understanding of the Company situation. The preunderstanding influenced my usage of a personal lens to interpret the collected data selectively. The biases could cloud my data analysis activities. As a result, I used reflective and reflexive practices to examine my thought and collected data. The reflections from my collaborations and interactions with other participants helped derive my reflexivity to understand the impact of my role duality (Holian and Coghlan, 2013).

#### 2.2.4 – RESEARCH CYCLE STRATEGY

The research method was designed along two dimensions of actions and learning. The practical knowing focus of the thesis linked my self-learning and organisation-learning by introducing agile working to customer engagement functions. Two research cycles were designed: core action research and action research thesis (Zuber-Skerritt and Perry, 2002). The core AR focused on the introduction of agile working along with the Company's engagement processes. The action research thesis cycle focused on exploring, analysing and developing the thesis paper. Both cycles cover several reflective sub-cycles. The core AR cycle reflected management actions in the agile working executions. The thesis cycle, which ran parallel with the core action cycle, focused on ongoing reflections of actions, learning, and the finding from implementing the agile working. The result of the thesis cycle was to contribute to a body of actionable knowledge, while the result of the action cycle is the execution of the agile working itself.

Due to the 30-month limitation, I had identified a three-parallel core action research approach: two sales and one implementation (see Figure 2). The three engagements started in early 2018: Working Capital Platform sales, Digital Leasing sales, and Digital Factoring implementation project. I incorporated related parties into a sales team, including sales, implementation, and support teams. The objective was to create a cross-functional team for better sales collaboration. In the implementation, I engaged sales in a regular agile project meeting to understand the implementation dynamic and project status and assess the client's perceptions toward the Company and the project. While developers and consultants could understand the nature of dynamic sales interactions, the sales could understand the consequences of the sale to the implementation.

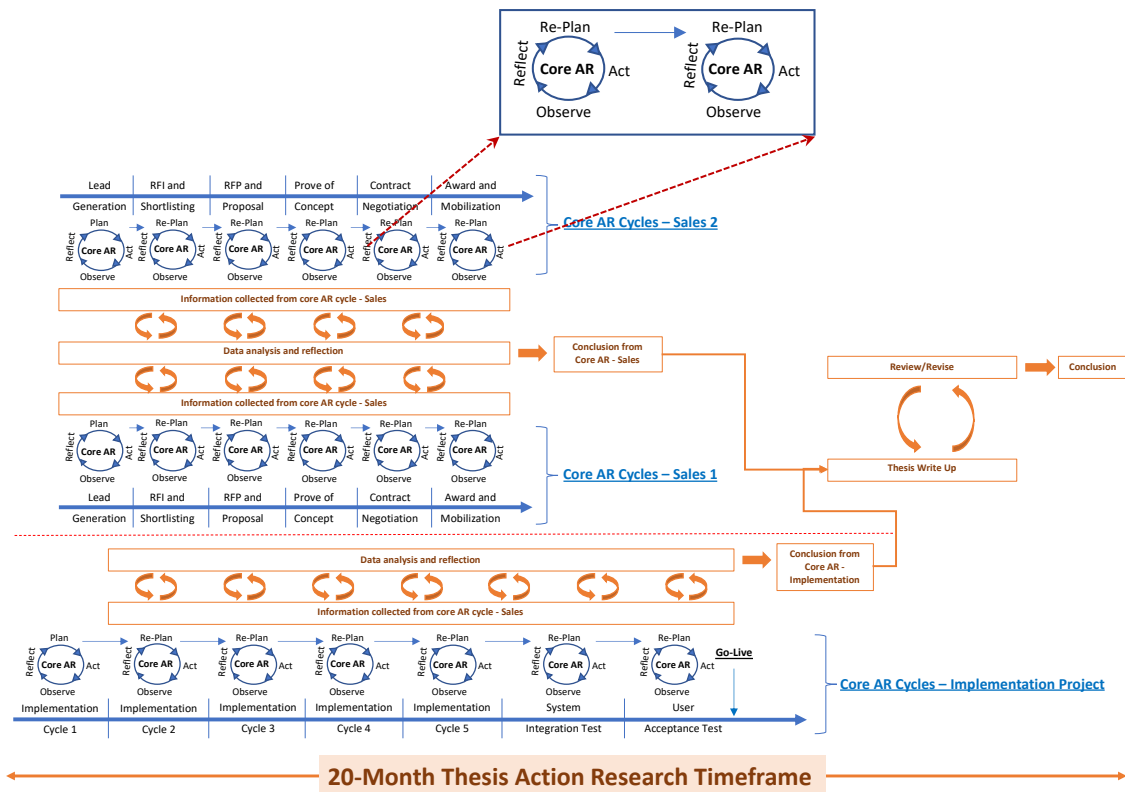


FIGURE 2: CORE AND THESIS ACTION RESEARCH PLAN (ZUBER-SKERRITT AND FLETCHER, 2007)

### 2.2.5 – DATA COLLECTION APPROACHES

Being both an action researcher and a manager who participated in the agile working implementation myself, I decided to borrow participant observation methods from ethnography and netnography. I physically participated and observed interactions for the ethnography approach, both actively and passively, during the agile working implementation. Similarly, because the Company used social media chat (LINE) for internal company communications, I actively and passively observed the interaction through chat logs. Section 2.2.3 addresses the strategy to collect data such that the data collection activities provided minimum impacts to the Company operations.

A combination of identified data sources and the nature of project activities suggested data collection methods. The primary objective of data collection was not to interrupt project activities. Two dimensions for data collection strategy were identified. These included a time dimension and working schedule dimension. Figure 3 shows the data collection approaches used in the thesis. Sources of data were identified to minimise day-to-day business activities. Data collection approaches that were time-consuming were minimised. For example, informal one-on-one interviews and project documentation were put at the end of busy team schedules.

At the same time, information data from a social collaboration such as LINE Chat History were collected throughout the hectic periods.

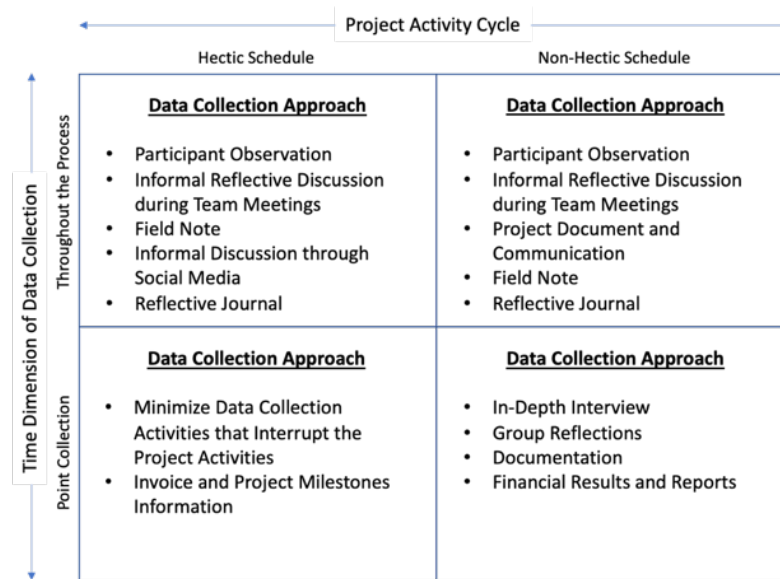


FIGURE 3: DATA COLLECTION APPROACH

Figure 4 and 5 depict business activity cycles that embed data collection activities. With the approaches, I, as the researcher, was a part of the engagements. Consequently, participant observation became a primary data collection. Sales and implementation meetings provided opportunities for participant observation (Raelin, 2001). With the agile working, I embed a 'constructing-planning action-taking action-evaluating' action cycle into the engagement process. For example, weekly sales and implementation meetings allowed the engagement teams to reflect upon their experiences, judge the effectiveness of their actions and re-plan for any adjustments to their next steps (Coghlan and Brannick, 2014). Also, project documents and a reflective journal could provide additional sources of data.

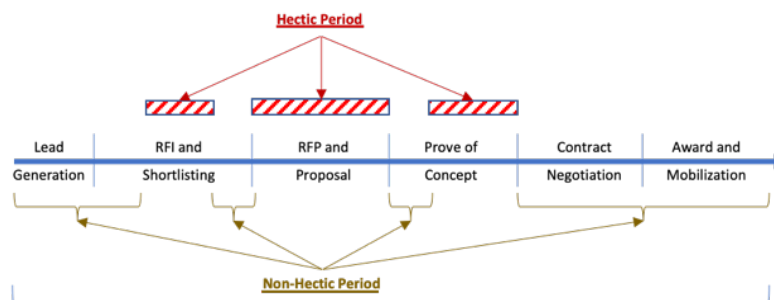


FIGURE 4: GENERAL SALES CYCLE

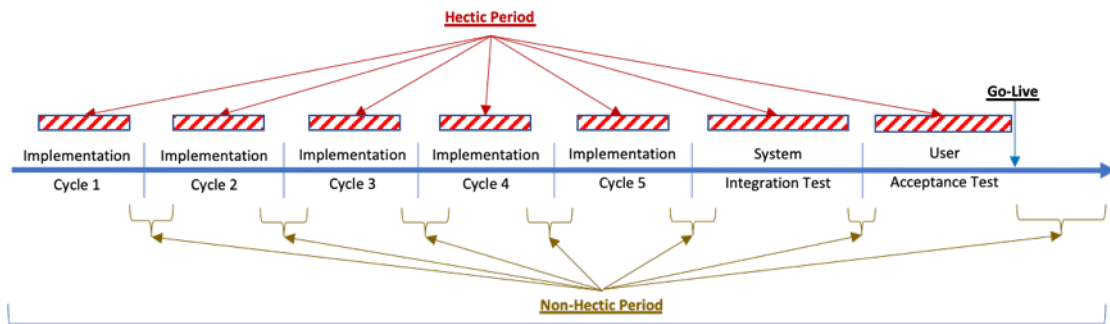


FIGURE 5: GENERAL IMPLEMENTATION CYCLE

During a non-hectic period, the researcher arranged one-on-one in-depth interviews with the team members. The in-depth interview could be arranged with the management and employees to gain insight into their beliefs and experiences (Roulston, 2010). The interviews served two objectives. The first was to understand the concerns and perceptions of interviewees on the project itself. The second was to build a relationship and provide coaching to the interviewees. The project milestone and financial data provided feedback information to plan, evaluate, and re-plan the agile cycle. The non-hectic period also provided an opportunity for a reflective pause.

Figure 6 depicts a high-level data collection approach reflecting different degrees of involvement in participant observations between Sales Action Cycles and Implementation Action Cycles and different approaches to ethnography between regular participant observation (ethnography) and online participant observation (netnography). In addition to the participant observation data collection methods, data triangulation was planned for the research design. Documentation and data from interviews provided reconfirmation of the ethnography and netnography findings.

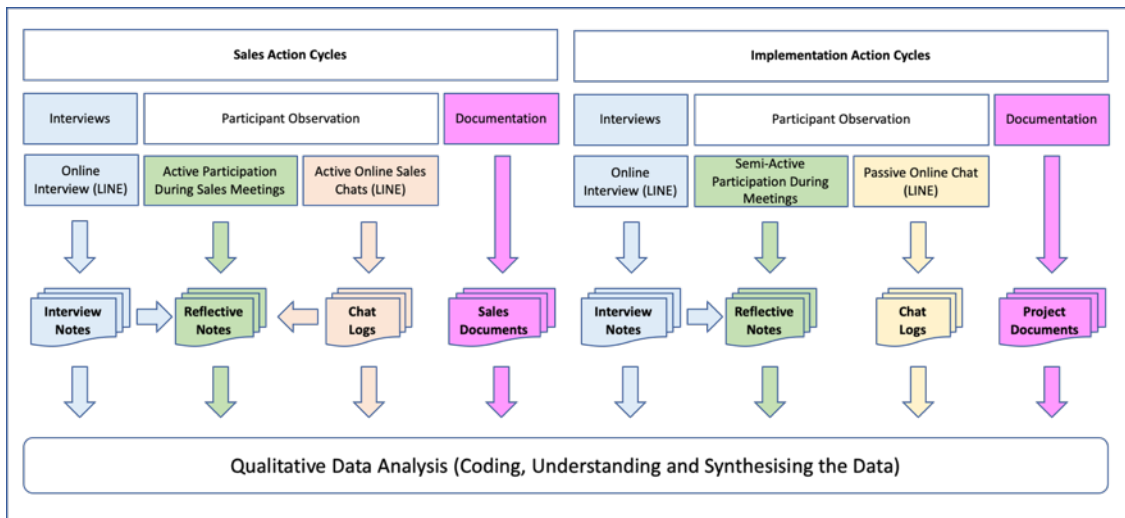


FIGURE 6: DATA COLLECTION APPROACH

As depicted in Figure 6, two categories of research data were defined as a data triangulation approach. The first category is raw data collected from the action cycles. The natural data sources included chat logs from LINE social media platform, documentation from both sales and implementation activities and interviews from formal and informal interviews. The LINE chat data could be further grouped according to the degree of interference from my interventions as a manager and a researcher. Data from sales chat contained a high degree of co-creation from the researcher because I actively intervened and drove the sales discussions. However, the LINE data from implementation chat logs were more natural because I was inactive in the discussions. Especially in the development team chat, I was an outsider to the group. I was only observed from chat activities.

The second data category is reflective-based data which contained reflection from participants as well as my reflexivity. Observations note from the face-to-face meeting were jotted and translated into reflective notes daily or regularly. In addition to the face-to-face meeting, data from sales LINE chats were fed into my reflexive notes. Later ethnography-based analyses, such as domain and theme analyses, were used to understand data from reflective fieldnotes. The analysis results would be triangulated with the results from the analyses of implementation chats, documentation and interviews.

The research was conducted in a small organisation consisting of a total of 19 employees. All employees participated in the research. Table 1 summarises the Research Participants, as follows:



| Participant    | Age Group | Team                | Sex    |
|----------------|-----------|---------------------|--------|
| Participant 1  | 45-50     | Administrative Team | Female |
| Participant 2  | 35-40     | Development Team    | Male   |
| Participant 3  | 35-40     | Development Team    | Female |
| Participant 4  | 35-40     | Development Team    | Female |
| Participant 5  | 55-60     | Development Team    | Male   |
| Participant 6  | 55-60     | Development Team    | Male   |
| Participant 7  | 55-60     | Development Team    | Male   |
| Participant 8  | 70-75     | Finance Team        | Male   |
| Participant 9  | 30-35     | Project Team        | Male   |
| Participant 10 | 35-40     | Project Team        | Male   |
| Participant 11 | 35-40     | Project Team        | Female |
| Participant 12 | 35-40     | Project Team        | Female |
| Participant 13 | 40-45     | Project Team        | Male   |
| Participant 14 | 40-45     | Project Team        | Female |
| Participant 15 | 45-50     | Project Team        | Male   |
| Participant 16 | 55-60     | Project Team        | Female |
| Participant 17 | 50-55     | Sales Team          | Male   |
| Participant 18 | 55-60     | Sales Team          | Male   |
| Participant 19 | 70-75     | Sales Team          | Male   |

**TABLE 1: RESEARCH PARTICIPANTS**

The following sections discuss data collection approaches from participant observation, netnography, documentation and interviews.

#### 2.2.5.1 – PARTICIPANT OBSERVATION THROUGH ETHNOGRAPHY

Ethnography participant observation was one of the primary data collection techniques for the research. In addition to a regular meeting note, three observation elements were included in the jotting focus: scenes, events, and interactions (Emerson et al., 2011). Spradley (1980) suggests variations of observations where different angles of observations could be described. The observation focuses could be around places of events, actors in events and interactions among involved actors.

Depending on the situation, a combination of two main jotting techniques was utilised: writing in a traditional pen and paper format and direct typing into a computer. If I was the leader of a discussion where I mostly spoke, a handwritten form of notetaking provided a more efficient jotting technique. One advantage of handwritten notetaking was that the memo could record conversations as they happened in the Thai language and required little translation distraction from Thai jargon to English. Typing directly to a computer allowed me to translate Thai into computer-readable English, which can be used in a qualitative analytical program. The typing

technique was more appropriate when I was not the leader of a meeting. Being a non-lead participant provided more time to translate into the English language directly. However, the on-the-spot translation during typing reduces my ability to focus on the detail of the interactions. Also, the translation can accidentally incorporate bias for the translation because I need to pick words to represent similar meaning in the Thai language. Because I was the sales leader, most of the observation data collected from the action sales cycle were handwritten. However, during implementation meetings, I played a less active role in the discussion. So, I could use the direct typing approach to capture and translate observation data into a computer-readable format.

However, because of my active participant-observer role, the memo could not focus on every detail of the interactions and conversations. For example, the detailed dialogue could not be captured. The observation focus was on the experience and reaction of members to the actions taken. Furthermore, because of my role as a participant, I sometimes intervened in the interactions and conversations to challenge members' assumptions of the issues discussed. The interventions created reactions and experiences among the team, which are different from the usual ethnographic. The focus is on neutrally displaying a social world and the related people behaviours (Emerson et al., 2011). The intervention generated value-laden observation to understand people's learning experience in dealing with uncertainty and agile practices. So, the detailed information from the memo would be focusing on the interactions and reactions that team members used to respond to each other.

My goal was to observe how the members reacted to the interactions both inside and after the meeting. Interactions could be an action each member was doing and gossiping. I regularly talked with all the team members to observe a gossip phenomenon to determine their perceptions of their work. The approach helped to collect complex reactions from the interventions among the team members.

My degree of involvement as a participant-observer covered two main situations. The first situation happened in sales action cycles, where I actively led the conversation and interactions. In this situation, I could not observe and jot all data generated from the interactions. So, I needed to focus on critical points related to my sales decision-making processes. In this case, I jotted a very brief field note covering some critical points and next steps. I also needed to spend time at the end of a period to prepare my reflective journal derived from the short notes and my memory of the sales interactions. The reflective journal will reflect on my

interpretation of the sales situation. However, I play a less active role in a weekly project meeting in a project implementation situation. Therefore, I can spend time observing and jot more data from the meetings.

Because agile working provided the fast-moving working style, the dynamics and interactions generate negotiations and prioritise uncertainty. Thus, the focus of the observations included how members handled the fast-paced working style, how members interacted under uncertainty and how decision making was prioritised and decided.

Four additional data sources were used during the analysis, including online observations, reflective journal, interviews, and project documents. Each data collection techniques will be described in the subsequent sections.

#### 2.2.5.2 – PARTICIPANT OBSERVATION THROUGH NETNOGRAPHY

Netnography, or online ethnography, has different characteristics besides traditional ethnography. Three characteristics of netnography, distinguishing the method from regular Ethnography, include the archival nature of interactions and co-creation of participant researchers, which require reflexivity when analysing the collected data (Kozinets and Nocker, 2018). Because social interactions happen on the internet, all the data can be automatically archived. So, it is a researcher's responsibility to identify the archival of social network interactions (Kozinets, 2015). In my workplace thesis, sales and implementation teams have utilised a free social chat platform called LINE to communicate and share information in real-time. LINE provides an information-sharing platform and allows members to express feelings and emotions through emoticons and clips. LINE provides 1 GB of archival space for LINE chat history. However, no larger than 50 MB file can be stored for more than 30 days (LINE, 2015). The second characteristic of social network data is the co-creation of virtual participation data (Kozinets, 2015). For example, with insider ethnography, during observation, researchers can intervene in interactions in social interactions. The intervention nature of social interactions is appropriated for an action research context. Actions can be introduced, and the consequences of the actions can be observed. So, a research design can define the degree of co-creation in netnography data. Thirdly, besides archival data, research can produce reflexive fieldnotes reflecting on a researcher's experience in the virtual world (Kozinets, 2015).

In the research, two types of chat logs were identified and archived regularly. In regular agile sales stand-up discussion, I actively participated in the chats. Consequently, the degree of co-

creation in the sales action cycles was high. My experience from participating in the sales interactions was incorporated into my daily reflective fieldnotes. However, in the agile implementation stand-up discussion, I passively observed interactions among implementation and development teams. All interventions were left down to the project manager to decide. So, observation in the implementation chats provides a less intrusive experience than participating in the sales chat groups. In other words, observations in the implementation chats produce more naturalistic data than data collected from the sales chats (Kozinets and Nocker, 2018).

One problem encountered from archiving chat data was the limitation in the archive space. Because chat data contained many emojis, both static and dynamic, pictures, files and movie clips, the extensive non-text data were automatically taken out, by the LINE program, from the archived chat files. So, I needed to transfer the chat data, including emojis and multimedia files, from the LINE platform to OneNote to reduce the space in LINE social network.

#### 2.2.5.3 – REFLECTIVE JOURNAL

A reflective journal is a research tool used to capture complex interaction data in action research (Phelps, 2005). Reflective journal served two objectives in the thesis. Firstly, it was the tool to collect data that would elaborate more detailed observation deriving from both the jotting note and my perception of each event (Emerson et al., 2011). Secondly, the reflective journal provided a vehicle for my critical thinking skill development (Phelps, 2005). During translating from the observation jotting note into the reflective journal, I described the observation by analysing and interpreting the observed data with my recalled sensory and experience perceived from the interactions. I realised that producing a reflective journal was not a value-free process of data collection. I needed to cross-check with other data collection methods to ensure my holistic understanding of the situation. For example, I observed aftermath actions that members behaved after each interaction. I also needed to look for the development of gossip among the members.

The reflective journal covered two sources of observations. The first one was a participant observation in the physical world. This included my involvement in sales meetings and implementation meeting. From the jotted fieldnotes, regularly, I reflected upon the period activities. The reflection focused on interactions among team members, ways the team made a decision, power and political dynamic in the meetings, morals and feeling from responsive

processes and actions derived from those interactions. I tried to write a reflective journal daily. However, when the time did not permit, I revisited the reflection weekly.

Besides the regular reflective journal, I also reflected upon the assumptions of my reflective journal write-up, which was the source of my critical thinking development and learning. Most of the times, my reflection on my reflection happened during my reflective journal writeup. I put asterisks to the reflexivity to separate reflection-on-actions from reflection-on-reflections. I conducted reflection-on-reflection right after the reflection-on-action because I could both types of reflections to decide for my subsequent interventions to both sales and implementation action cycles.

#### 2.2.5.4 – INFORMAL INTERVIEWS THROUGH SOCIAL MEDIA CHAT

Because of a tight project schedule and the fast dynamic of a sales process, interview data were primarily collected through informal, unstructured, informal LINE chat interviews. Besides the data collection objective in the research thesis cycle, the informal LINE chat interview provided excellent coaching and reflective support to help develop my teams. The interviews happened on an individual basis. The LINE discussion started with open-ended questions like:

- How are you lately?
- Did you encounter difficulties in the project implementation?
- What do you think about the current deal situation?

The questions were asked to participants regularly. Once the participants replied, I would further ask deeper related to their responses. Despite the business-as-usual nature of the informal interviews, the interviews covered both work-related and research-related discussions. The LINE interviews were conducted as if there were a coaching session. Informal LINE interviews started with work-related discussions to find out how participants solved problems and made decisions. The LINE interview also focused on reflection stimulation. Interactions posted during meetings were to stimulate double-loop thinking among the team. Questions used would vary depending on the situation. However, the questions were framed around reasons behind actions and interactions and how the participants learned about the agile actions.

The interview chat data was incorporated into my reflective journal, along with the observed data. My reflective journal was the place for integrating the data from my observation and data from the informal reflective interview. I also reflected upon my understanding of a situation

both during chat interviews and reflective journal write-ups. The complexity of data collection techniques in the thesis demonstrated the difference from those of positivist research. Interestingly the reflective LINE chat could also be perceived by my team members as my intervention actions. The interview could result in additional data for my observation. This meant the reflective LINE chat interview was not a one-time data collection technique, as in regular qualitative research. It was a complex continuous intertwining process of data collections, intervening actions and learning (Vetter and Meacham, 2018).

There were advantages to using LINE over traditional face-to-face informal interviews. Interviews over LINE provided flexibility for an asynchronous way to ask questions to my team. Interviewees could answer questions when they were available. LINE also allowed interviewees time to rethink before responding to questions. Feeling from LINE chat could be easily communicated through the uses of emojis and the time between responses. LINE marked a time when the messages were read, and the response posted.

#### 2.2.5.5 – DOCUMENTATION

As argued by Prior (2003), the Company's documentation can inform the organisation presence and behaviour. Data collected from the Company's documents provided a valuable resource for action research. There were several sources of documentation for data collection and analysis: project documents, sales documents, email correspondence. The document has had two aspects for the data collection and analysis. Documents demonstrated points in time when the data was reported. However, when comparing a series of documents at several points in time, I could also find a development dynamic. Thus, I needed to collect all related documents produced at the start of the thesis until my data collection activities.

#### 2.2.5.6 – DATA SATURATION

Fusch and Ness (2015, pp. 1,413) suggest that a researcher realised a data saturation point when collected information is enough to "replicate a study" and when coding produces repeated similar patterns. Saunders et al. (2018, pp. 1,900) argue that when data collection activities reach a point of diminishing return, additional data collection will be "counterproductive." Another important point related to the nature of the action research. Because the action research has a clear beginning and ending point, the end of the action research could be another factor to consider. I have realised that the data saturation consideration must take a personal lens into reflections because an action researcher has dual roles and cannot separate oneself from the research situation (Fusch and Ness, 2015).

I decided to stop the data collection activities when I realised repeated themes in cycle 3. Despite different situations in cycle 1, 2 and 3, the coding produced similar themes and patterns. The repeated themes could be analysed and generalised. At the end of cycle 3, I decided that the data was enough for analysis.

## 2.3 – DATA ANALYSIS

For the data analysis approach, I based my data analyses on Bazeley (2013) and Miles et al. (2014) approaches to qualitative data analysis to explore and understand the collected data. The analysis process started from reading through the data to understand the nature of the data collected. Then codes were assigned to the data. In the second cycle of coding, a process of reflection was applied to understand the first round of coding. Codes were grouped according to their similarities, deriving patterns of codes.

Then, patterned codes were displayed in a graphical format that could further explore relationships among the patterned codes. The result of displaying and exploring the patterned codes helped me discover discrete themes and a discrete concept explaining the observed situation. Exploring the concept's dynamic throughout the actions research cycles helped to understand the action research finding.

Coding, theme identifications, concept formation and dynamic understanding of the concepts helped me derive the first and second person learnings from the action research thesis. However, to synthesise the third person learning, I needed to apply deep reflections to understand meta-learning from agile working. The meta-learning linked the effects of agile working with both personal and organisational learning. The meta-learning from the agile working could be a basis for further knowledge creation in a complex responsive organisational learning process in an agile working environment. The result of the research could benefit both entrepreneur and academic readers interested in agile working practices.

### 2.3.1 – ORGANISING AND IMPORTING DATA INTO NVIVO

The first step of data analysis was to organise and import the data into analysable formats. Because I selected NVIVO 12 Plus as the qualitative data analysis software, the formats relied on NVIVO compatibility. There were three main types of collected data: paper-based data, computer-based data and social network chats (Table 2). Table 3 provides degrees of involvement in each collected data. Table 4 provides information on the collected data.

| Collected Data           | Type of Data |                |                |
|--------------------------|--------------|----------------|----------------|
|                          | Paper-Based  | Computer-Based | Social Network |
| Field Notes              | X            | X              |                |
| Reflective Journal       | X            | X              |                |
| Sales Document           |              | X              |                |
| Project Document         |              | X              |                |
| Interview LINE Chat      |              |                | X              |
| Sales LINE Chat          |              |                | X              |
| Implementation LINE Chat |              |                | X              |
| email                    |              | X              |                |

TABLE 2: CLASSIFICATION OF COLLECTED DATA

**Field Notes:** I used two approaches to capture my observations. When I was actively involved in discussions, I used a handwritten approach to jot key observations. The handwritten fieldnotes provided reminders for me to reflect and expand my memory after a meeting. In case I was a passive observer, I typed my observation directly into Microsoft OneNote fieldnotes. Both paper-based and computer-based field notes were used in the daily reflective journal writeup (Table 2). Handwritten field notes were converted into photo-based pdf and imported into NVIVO. The fieldnotes in OneNote were directly imported in NVIVO through an NVIVO import function.

| Collected Data           | Mode of Observation |         |
|--------------------------|---------------------|---------|
|                          | Active              | Passive |
| Field Notes              | X                   | X       |
| Reflective Journal       |                     | X       |
| Sales Document           |                     | X       |
| Project Document         |                     | X       |
| Interview LINE Chat      | X                   |         |
| Sales LINE Chat          | X                   |         |
| Implementation LINE Chat |                     | X       |
| email                    |                     | X       |

TABLE 3: MODES OF OBSERVATION IN DATA COLLECTION



| Collected Data           | Amount | Unit                |
|--------------------------|--------|---------------------|
| Field Notes              | 195    | Files (842 pages)   |
| Reflective Journal       | 185    | Files (184 pages)   |
| Sales Document           | 39     | Files (296 pages)   |
| Project Document         | 84     | Files (1,732 pages) |
| Interview LINE Chat      | 7      | Files (523 pages)   |
| Sales LINE Chat          | 9      | Files (509 Pages)   |
| Implementation LINE Chat | 4      | Files (2,002 pages) |
| email                    | 830    | Mails (852 pages)   |

TABLE 4: INFORMATION ON COLLECTED DATA

**Reflective Journal:** I had two formats of reflective journals depending on the situation on the days I reflected: handwritten and typed. For example, when I did not have a computer during project or client visits, I detailed the meeting into my reflective notebook right after the discussion. Each reflection was marked with the date of reflection. The handwritten pieces of the reflective journal were converted into photo-based pdf documents. Then the photo-based pdfs were imported into NVIVO. When I had available time at the end of the day or even the weekend, I would spend time reflecting directly into Microsoft OneNote. Each page of OneNote was marked according to the date I reflected. Then I used NVIVO functions to import data from OneNote.

**Sales and Project Documents:** All of the sales and project documents were already in electronic formats. So, I used import functions in NVIVO to manage the documents.

**Interview Notes:** I used two approaches to interview participants: informal interview and social network chat. I converted interview notes into pdf and imported them into NVIVO. While for the chat-based interviews, I downloaded the chat logs to .txt format and imported them into NVIVO using an NVIVO importing function

**Chat Observations:** Because NVIVO could not directly connect to LINE chat, which was the tool for intra-company communication, I had to use two steps to organise the LINE chat data. Firstly, I downloaded the data into .txt format. Secondly, I need to transcript the emojis into the .txt files because there were usages of emojis in the chat. However, to avoid data loss, I also archived the LINE chat in the LINE platform to preserve the originality of the data. The LINE platform was secured, which prevented data privacy loss. LINE encrypted all chat data. I also used a biometric as a mechanism to lock the LINE application. So, only I can access LINE chat and archives.

### 2.3.2 – CODING THE DATA

The key is to understand complicated things by reducing things into understandable parts (Miles et al., 2014). Codes provide a foundation for interpreting the collected data, as well as the relationship among them. The coding was to understand how participants reacted to the agile working implementation. Since the action research covered over 20 months of observations, the codes could be refined over time. The longitudinal coding provided insight into how participants' reactions evolved, which was different from traditional qualitative research that provided a snapshot in time. The agile methodology was also used in the coding exercise. Iterations of coding started from planning coding, assigning the codes to collected data, reflecting upon the coding results, and replicating the next iteration.

During the first coding cycle, open coding was used to open up opportunities to increase the findings. Instead of a word-by-word coding approach, the collected data was coded in chunks. The data chunks were passed through a reflective process to derive the underlying meanings of the data chunks.

To code the data, a combination of approaches was used to assign codes to the collected data, depending on the natures of the data sources. For example, coding started with a descriptive coding approach to assigning high-level meaning to the data. Then other approaches to the coding were used as the initial codes were reviews and reflected. For example, for codes related to commitments, magnitude coding assigned degrees of commitment to the codes. An emotion coding approach helped identify emotions from emojis and chat messages for codes related to interactions, especially in social network chats. A value approach to coding was used to identify the underlying motivations of each interaction. Lastly, a provisional coding approach was used to capture the uses of reflective practices in the organisation.

In the second cycle of coding, codes that had similar meaning were refined and grouped into categories. The refinement of the codes was then interpreted, and defined relationships among the patterns. The result was an emerging theme. Then, through reflection, a discrete concept was synthesised to explain the relationship between the emerging themes. Figure 7, inspired by Bazeley (2013), depicts the approach to coding in the research. Once categories were discovered, further analysis would be done to understand the themes and concepts derived from the observed data.

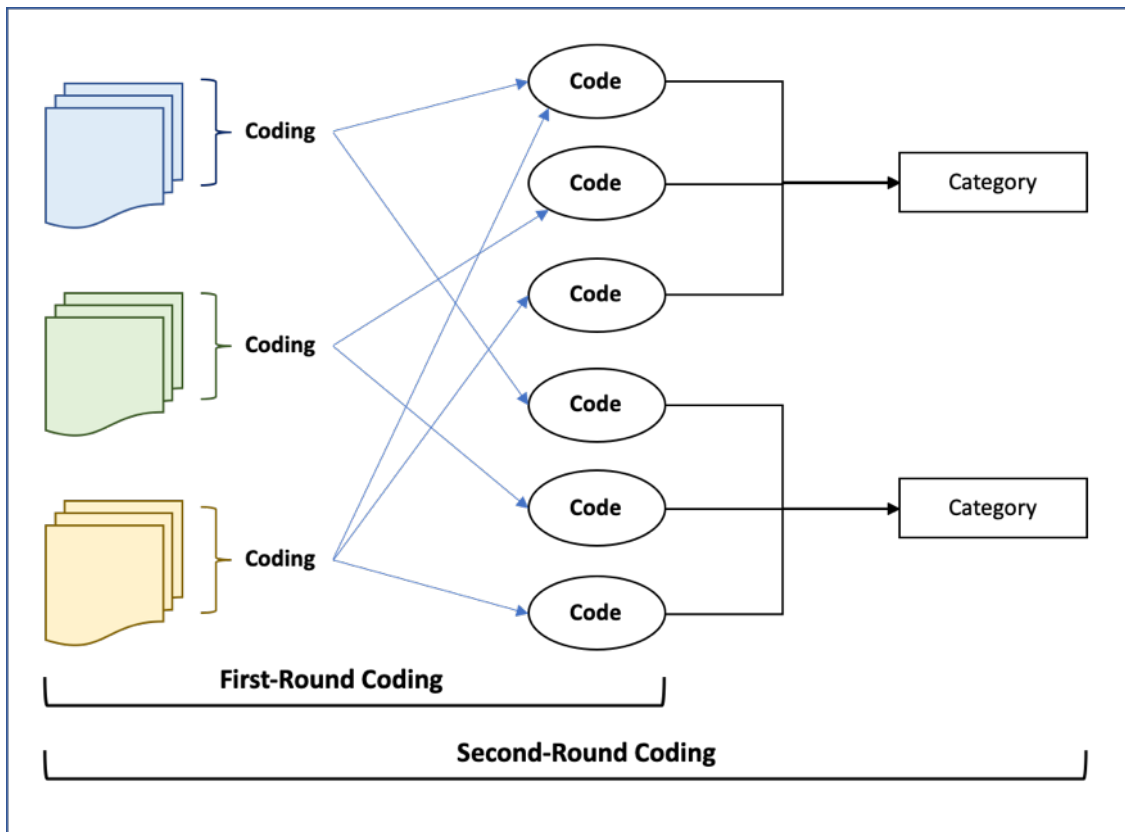


FIGURE 7: CODING APPROACH

### 2.3.3 – UNDERSTANDING AND SYNTHESISING THE DATA

During the coding, antecedences and consequences of the codes were observed and noted for further linking codes and identifying patterns. Five steps were applied to the data analysis process, as follows (Bazeley, 2013):

1. Focus on problems:

The coding of data was done directly into NVIVO. The coding and understanding of data started with problems. Because agile working focused on quick iterations to prioritise and solve organisation problems, understanding the data also focused on how the Company solved problems. Because the action research focused on actions, identifying problems was not difficult during the coding. Problems were discussed repeatedly throughout agile working. However, the understanding required a look back to the antecedences of the problem. These helped me to revise and link the codes. I also identified and coded the consequences of the problems. The actions and interactions from the problem solving led to emerging codes. The emerging codes were

reflected and revised in several iterations. The revision helped to explore and group relevant codes into categories.

2. Linked codes to cases:

I designed two case dimensions. The first dimension was an organisation unit. Data sources were designed and collected according to participants' organisation units. There were some exceptions when a person performed dual roles. The code had to link to the organisation according to the context of the data collected. In this step, the two cases were agile sales and agile implementation units.

3. Defined discrete patterns through the first cross-case analysis:

Codes from sales and implementation units were compared and contrasted. The results showed similarities and differences in the categories. Seven out of nine categories showed similarity, while the other two explicitly linked to each case (refer to Chapter 5 for more detailed information). I used code tabulation to visualise and analyse the codes.

Categories or pattern codes were displayed in NVIVO. The visualisation of the patterns helped me to understand the relationship between the patterns. Then the understanding helped me to relate and link the patterns to derived themes. I applied a meta-code approach to defining a higher level of categories. Then I could compare and contrast the meta-categories and themes. The result of the cross-case analysis was a concept that linked the nine categories and explained the data.

4. Understood dynamic patterns through the second cross-case analysis:

The analysis switched to time-dimension. Cycles were used as the cases in the second round of interpretation. Step 4 was to explore the dynamic characteristics of the concept across the action research cycles. There were three cases: cycle 1, cycle 2 and cycle 3 (refer to Chapter 4 for more detailed information). The concept was analysed from time dimension views. The dynamic nature of the concept provides a deeper understanding of agile working implementation in my organisation.

Similar approaches used in step 3 were used in step 4 to analyse the data. The second round of analysis helped me understand more deeply, especially in the power relation

aspect, the dynamic effects of the agile working implementation. Chapter 5 and 6 discuss the finding in more detail.

#### 5. Synthesised and generalised the finding:

The understanding of the dynamic concept also helped with deeper reflection to understanding meta-learning from agile working. The meta-learning was so critical that new actionable knowledge could be synthesised from the action research thesis providing a starting point for further studies in agile working in a start-up organisation area.

In the synthesising step, a meta-learning approach was used to understand how I learned from the finding. The learning about learning was to understand how double-loop and single-loop learning were interrelated. The synthesis focused on the impact of agile learning developed and sustained the double-loop learning in my organisation. The meta-learning from agile working helped to generalise the finding and new actionable knowledge from the action research.

### 2.4 – VALIDITY OF THE METHODOLOGY

There are two aspects of validity. Firstly, a traditional way of research validity which mainly derived from a quantitative research methodology. Triangulation of data, or structural corroboration, is one of the research validities to the credibility of data interpretation (Creswell, 2013). For structural corroboration, I based my data collection approach on participant observation. However, I triangulated the data collected through netnography from social network, interviews and documentation. Data analysis from different data sources helped increased the research validity. I also rechecked my understanding with some executives who involved in a situation to ensure accurate interpretation. The consensual validation helped to compare and contrast my understanding of observed situations (Creswell, 2013).

Secondly, a different approach to support the validity was to realise the nature of the interpretation of insider action research. The alternative approach is to ensure the truth from the interactions represented by what participants meant. This was to position me in the participant shoes. The approach was referred to as “the Self as Other” or “the Self in Other” (Dennis, 2018). The “Self as Other” based reflection provided a way to connect me to the participants. To connect with the participants, observation beyond wordings were critical. Body language, emoticon, emotions and other factors must be captured and reflected when

reading and analysing the data. This meant I must analyse beyond the claims the participants communicated to underlying assumptions and beliefs of participants. Reflectivity and Reflexivity were the keys to research validity. For example, I needed to reflect upon participants' motivations to understand why participants saw the situation and act accordingly. The reflectivity and reflexivity helped code the data analysis and helped the meta-learning synthesis from the research findings.

## 2.5 – ETHICAL CONSIDERATIONS

Because of my multiple roles in the action research, I obtained informed consents for the data collection. I explained the research process to the participants to ensure the integrity and transparency of the research and participants' privacy and confidentiality. I gained approval from the management team to use the data from the Company's documents and figures. The authorisation letter from the Company to conduct agile working action research, access the Company site, and access to the Company's document and access participants were approved and signed by three Company's authorised board members on 21 February 2018. (Note: According to the Thai regulation, the letter must be co-signed by two out of three authorised board directors. In my case, three of the authorised directors were co-signed.)

Participant informed consents were arranged during March and April 2018 before the data collection activities. The Research Participant Information Sheet and Participant Consent Form were communicated to all the research participants to ensure participants fully understood the expectation and context of action research before they agreed to participate. However, because most senior employees were well respected in Thailand, the participants' anonymity was requested. Collected data would go through a dis-identification process to prevent data privacy risks. All participant and company information would be masked.

In addition to the traditional ethical consideration mentioned above, additional ethical consideration must be incorporated in the research. My dual-role status could unintentionally impact the employees and the organisation. The general empirical method guided the reflective and reflexive process throughout the action research process (Coghlan and Brannick, 2014). Reflexivity helped me “to be attentive to the experiences that provoke ethical challenges, be intelligent in how they understand what is going on and what is at stake, be reasonable in making judgments and understand and be responsible for the actions they take” (Holian and Coghlan, 2013, p. 414). Reflexive and reflective skills played a critical role in ensuring the

ethical standard of action research. Finally, the University of Liverpool approved the application for ethical approval for the action research study on 26 March 2018.

## 2.6 – SUMMARY OF CHAPTER 2

Chapter 2 justified the selection of action research as the methodology in the agile working thesis. Despite the practitioner focus of the thesis, the data collection approaches borrowed a combination of ethnography and netnography in approaching the data collection. Besides, the analysis was based on Qualitative Data Analysis approaches by (reference). NVIVO was used to manage the research information as well as the analysis of the data.

The next chapter provides the first step in the action research thesis: a literature review to understand the organisation problem and the actions. The review of the literature provides the basis for the management to plan the actions in cycle 1.

## CHAPTER 3 – LITERATURE REVIEW

### 3.1 – INTRODUCTION TO CHAPTER 3

Chapter 2 discussed an action research methodology used in the Thesis to understand the effects of agile working in the organisation. Chapter 3 describes the starting step in the action research cycle, where problematising of the organisation issues took place. The usage of the literature was to provide informed decisions for the agile working action introduction to the organisation (Figure 8). The literature review was framed around the organisation issues that the management foresaw. The problematisation suggested a need to implement actions that helped the Company improve reflective practices, integrate company cultures and become a member of the Client's ecosystems.

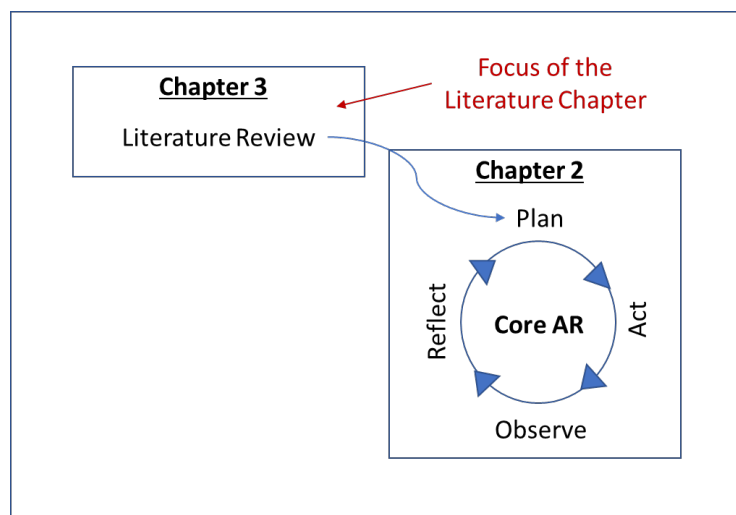
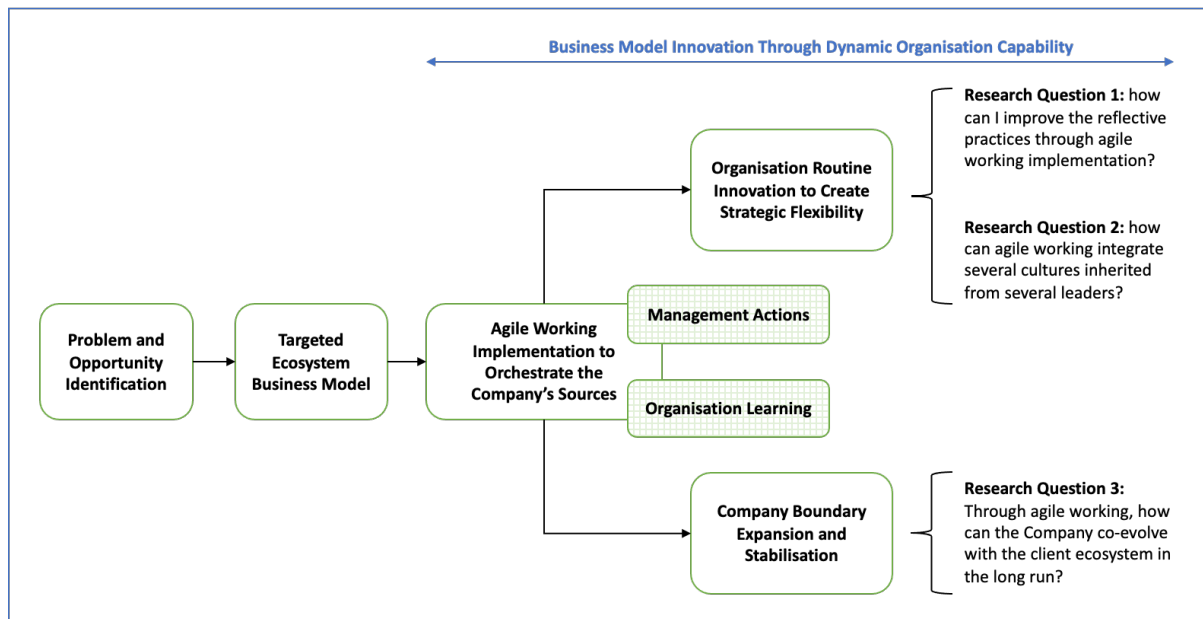


FIGURE 8: FOCUS OF CHAPTER 3

The structure of the Chapter follows a conceptual flow indicated in Figure 9. The Chapter starts with the description of the Company's workplace-based problems in section 3.2. The problem identification led to the management decision to pursue an ecosystem business strategy. The ecosystem business model, discussed in section 3.3, reflects the relationship among businesses that operate in a market environment.





**FIGURE 9: FLOW OF THE LITERATURE REVIEW**

The selected ecosystem business model reflected the Company intentions to expand and stabilise the boundary of the business. The new business model reflected the Company's intention to create organisation flexibility in responding to stakeholders' demand in the ecosystem. The boundary extension and the Company flexibility connect to the third research questions mentioned in Chapter 1.

In section 3.4 and 3.5, the chapter discusses change models that could help the company with the ecosystem strategy. Section 3.4 highlights the possible change approach for the management selection. At the end of section 3.4, management selected an ambidextrous change approach as the ecosystem strategy. While section 3.5 introduces Agile Working as the change management model applied to the intended ecosystem business model. The discussion further contrasts assumptions behind agile working, which assumes trust and team unity within a company, with my Company context was more complex than the agile theory assumed. Interactions between multi-companies in my workplace-based problem led to low trust and a team-division working environment. To come across the complexity of my work environment, hybrid agile working, combining both diagnostic and dialogic change, was used as the change mechanism in my workplace-based situation instead of a “pure” agile approach.

As the change enabler (Csar, 2020), agile working help the company innovate its business model to arrive at organisation agility (Brand et al., 2021). Section 3.6 addresses the business model and business model innovation concept to understand the organisation aspect of the

innovative changes. The section leads to the understanding of organisational strategic agility and dynamic capabilities. Then, section 3.7 points out that agile working can be used to innovate organisation agility. Section 3.7 discuss the tool to understand the three research questions. Agile working stimulates reflective practices as an organisation routine to integrate organisation culture. In addition, the agile working helps the Company to manage its ecosystem aiming to expand its business boundary.

### 3.2 – WORKPLACE-BASED PROBLEM

The working-style conflict prevents the Company ability to adjust to the changing business environment. One of the major driving forces in the changing business environment is an emerging Internet of Things (IoT) (Schuh et al., 2014). The IoT increases participation and interaction among suppliers and ends consumers (Democratisation) and direct demand-supply matching through the elimination of traditional intermediaries (Disintermediation) (Hoover and Lee, 2015). In Thailand, big companies are trying to sustain their competitive positions by moving toward a democratised business model, allowing small companies to participate in their business environments while maintaining their intermediary power.

A Thai bank, for example, faced a budgeting process inflexibility in sourcing innovations. The bank had sourced business partners to help increase its market responses despite the bureaucratic budgeting process. As an independent venture, my Company could become a flexible mechanism for the bank' ecosystem (Man et al., 2002). There were several options that my Company could add value to the bank. The first was to partner with the bank and offer a platform solution to customers in Thailand. The other option was for the Company to provide flexible development resources to the bank on a time and material basis. Both options could face challenges in the executions. The critical challenge was a win-loss practice used by the bank. Two factors link to the win-loss practice in complex implementation: information asymmetry and fixed-fee approach to procurement. The bank did not disclose all information to vendors and used a fixed-fee approach to procurement complex solutions. So, the Company needed to propose solutions with some predefined assumptions. This approach strengthened the bank's negotiation power. Once a contract was signed and a project started, additional requirements emerged. The bank also used payment acceptances as another negotiation tactic to force the Company to accept the emerging requirements. Jiin-Song and Chi (2015) refer to the structured win-loss approach to procurement as buyer-seller cooperation.

Double-loop learning could lead to a win-win collaboration to overcome the challenge. Double-loop learning leads to trust-based collaboration between buyers and sellers. Jiin-Song and Chi (2015, p. 3) use the Game Theory to prove that double-loop learning leads to a trusted collaboration for "reciprocal interaction and cognitive-institutional-based trust." The mutual gains from trusted collaboration eventually lead to a win-win result (Jiin-Song and Chi, 2015). In my situation, the bank still dominated power over the Company. However, our trusted partner relationship helped the Company capture a small portion of the win from the collaboration with the bank.

The company needed to change the culture to support the double-loop organisational learning to achieve the bank's trusted partner relationship. Thus, the management decided to introduce an agile working into the Company's client-facing units: sales and project management. With the nature of reflective agile working, it is expected that the existing organisation culture could be unlearned (Löf, 2010) and adapted to the new double-loop learning culture (Ben Othman et al., 2016). The nature of double-loop learning will be further discussed during the reflective discussion in subsequence Chapter six.

### 3.3 – ECOSYSTEM BUSINESS MODEL

In a highly collaborative technology market, businesses must co-evolve the market dynamic. Businesses innovate business models that help organisations achieve their strategic sustainability (Biloslavo et al., 2018). Ecosystem business models are one of the developments that allow businesses to co-create values among ecosystem members (van der Borgh et al., 2012). Ecosystem business models vary according to their focuses and underlying assumptions (Biloslavo et al., 2018; Cosenz and Noto, 2018; Dufva et al., 2017; Kim, 2016; Mansour et al., 2018). For companies with a self-centric focus, ecosystem systems are developed around the core organisations (Zahra and Nambisan, 2012). This means the core organisations control the ecosystem dynamics and interactions and intermediation mechanisms in ecosystem value chains. The self-centric companies base their business logic on maximising wealth through their goods production or distribution capability (Ng et al., 2012). The strategy is to maximise the wealth through controlled value-chain extension (Suchiro, 1997). As competitions in a market become intense, companies need to extend their value creation logics to cover services and customer journey. The extended business focus requires collaborations and interactions across value creation flows in an ecosystem (Ng et al., 2012). Consequently, interactions

among ecosystem partners relied on low intermediary mechanisms in the value chain (Zahra and Nambisan, 2012).

The evolution of businesses models reflects two trends: dis-intermediation and democratisation. Nordin et al. (2013) argued that dis-intermediation represents mechanisms that companies strategically improve their value creation chains' efficiencies. Each strategy represents differences in the degree of controls each mechanism has on the value creation efficiency (Figure 10).

In addition to the traditional supply-chain model, Zahra and Nambisan (2012) identified four additional ecosystem business models: Orchestra, Creative Bazaar, MOD Station, and Jam Central. Each type of ecosystem has different characteristics depending on the model's origination, power-relations among the members, and a beneficiary relationship between the dominant player and other members in the ecosystems.

#### The Traditional Business Model

Companies increase their value chains' efficiency in traditional businesses by expanding company boundaries and controls through value chain integrations. The business expansions can be done through organic growth or merger and acquisition strategies. The two mechanisms reflect companies' unwillingness to sacrifice their controls over the value chains. The main reason for the value chain integration strategies is to gain as much profit as possible from the value creation activities. Hence, most competitions reflect a win-lose scenario in a traditional Thailand business environment.

#### The Orchestra Business Model

In the Orchestra Model, one keystone player dominates the ecosystem (Nordin et al., 2013). The keystone player organises and imposes governing rules for other ecosystem members to follow in exchanges for economic benefits from participating in the player-controlled environment. The keystone player uses the dictated governance system to orchestrate interactions and direct behaviours of the members.

#### The MOD Station Business Model

In the MOD Station, traditional firms allow ecosystem partners to modify their existing technologies to develop modified offerings to either new or existing markets (Nordin et al., 2013). Compared with the Orchestra model, where the conductor gives out music sheets to

musicians, the MOD is similar to when a composer guides musicians to play their music pieces according to a specific music scale. Members in the MOD environment have more freedom in acting on their terms with some compliance with the core player's rules. Compared to the Orchestra, the MOD pieces of music might not fit nicely like those in the Orchestra, but they go together in the same direction.

### The Creative Bazaar Business Model

In the Creative Bazaar, dominant companies provide places for small companies to innovate and participate in the ecosystems (Nordin et al., 2013). The core companies can shop for innovative ideas and integrate them into the core companies' product offerings. The model leverages an open innovation mechanism open for idea competitions from start-up firms and SMEs. If participants successfully win the open innovation competitions, those winners will get funding to develop their ideas further. The core companies can utilise a stage-gate model to screen out un-marketable ideas (Cooper, 2017; Cooper and Sommer, 2016). Ideas and innovations that pass the gates will be integrated into the Company's business development processes. Because the creative bazaar business model provides business potentials for start-up ventures, even though the dominant companies distribute little benefits to those tiny ventures, the opportunities are perceived as relatively big rewards for the tiny players who want to start the business fortunes.

### The Jam Central Business Model

Lastly, the jam central can be considered a disruptive ecosystem business model (Nordin et al., 2013). Instead of originating from traditional dominant players, independent smaller ventures collaborate to create inventive and innovative ideas and new-to-the-world ecosystems. The new-to-the-world ecosystem disrupts existing business environments shifting power from traditional players toward the emerging ecosystems. Usually, information-communication technology accelerates the emergence of the jam central platform ecosystems, providing direct interactions between multi-side value chains: suppliers, consumers and other stakeholders (Gandia and Parmentier, 2017; Hänninen et al., 2018). The Jam Central business model provides opportunities for a high degree of democratisation (Figure 10). The platforms provide a co-existing mechanism for ecosystem participants to innovate and compete (Kim, 2016).

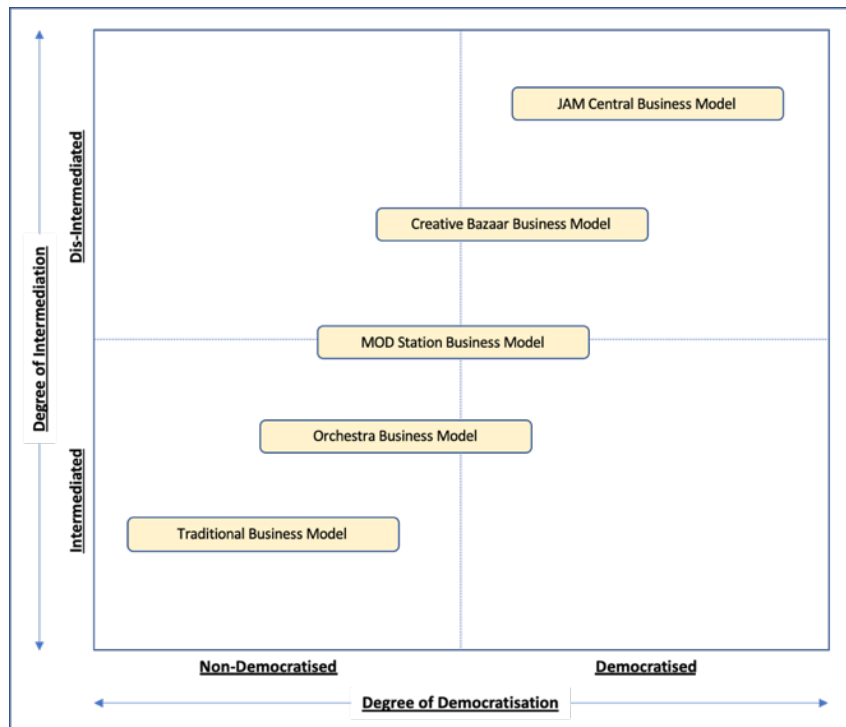


FIGURE 10: ECOSYSTEM BUSINESS MODEL AND DEMOCRATISATION MATRIX

In mature markets like in the US and UK, JAM central, or a platform business, is a common emerging business model (Steven, 2013). However, in a less developed market like Thailand, the traditional company-controlled ecosystem, like the Orchestra, is still dominant. For example, in Thailand, the business ecosystem development after the coup in 2013 strengthens big companies' competitive positions. As the competitive environment in Thailand was dominated by large companies, the ecosystem businesses were evolving around the Traditional and Orchestra ecosystems because the dominant companies could demand a monopoly power. As a small company, our immediate strategy was to participate in an ecosystem of dominant players. The only ecosystem business model choice for the Company was the orchestra business model. The Company decided to become a member of a dominant bank's ecosystem members. Simultaneously, we need to observe and monitor potential emerging opportunities from Thailand democracy and social development. The ecosystem development foresight activities help the Company prepare for potential opportunities to expand operations into other ecosystems. The paper will discuss agile change models applied to the Orchestra ecosystem where my company operates in the following sections.

### 3.4 – MODEL OF CHANGE

Section 3.4 discusses two modes of change: episodic and continuous changes—the two modes of changes related to an explicit change management practice in Thailand. The Client

understood change management as an episodic mode inherited from a traditional waterfall project management methodology. However, in the agile environment, interactions were the key to agile working. So, continuous change from ongoing interactions in agile working must be understood.

Before discussing change models concerning the dis-intermediation/democratisation aspect of the business environment, it is worth reflecting upon several aspects of changes. The aspects of change help define a proper model of changes that can be contextualised in each situation. Each aspect reflects the underlying mindset of those who practice each change model (Bushe and Marshak, 2016).

### 3.4.1 – ASPECTS OF CHANGE

Despite Change management literature discuss several aspects of changes, approach to change management can be grouped into four interrelated angles: timing of change (Armenakis and Bedeian, 1999: Siegal et al., 1996), time-focus of change (Bushe and Marshak, 2016: Bushe and Marshak, 2009: Marshak and Bushe, 2009: Worley and Mohrman, 2014), the process of change (Armenakis and Bedeian, 1999: Marshak and Bushe, 2009: Worley and Mohrman, 2014) and level of change (Bushe and Marshak, 2016: Hogan and Coote, 2014: Marshak and Bushe, 2009). The timing aspect discusses episodic vs continuous change paradigms. Episodic-continuous thinking leads to the time-focus of change. The episodic change focuses on a change in the present, while dynamic or continuous change looks more into the future. Process angle focuses on the predictability nature of change. With a high degree of predictability, change strategy is to simplify change activities into a linear process flow. The flow indicates sequential change activities. Alternatively, when faced with an uncertain future, unpredictability makes changes complex. Non-Sequential change is more suitable for a future perspective of changes. Lastly, a simplified sequential process address changes at a high-level activity. A deeper level of attitude and assumption requires more complicated that requires a non-sequential reflective change.

#### 3.4.1.1 – EPISODIC VS CONTINUOUS

There are two timing aspects of change: episodic and continuous (Uotila, 2018). Under the episodic change, managers focus on existing business environment stability to sustain competitive positions and advantages while allowing slow and incremental changes in the business environment's life-cycle over a period (Van de Ven and Poole, 1995). Once a system reaches its limit, a burst of significant adjustment requires a new system equilibrium. A

transformative program is typically needed and demanded by senior executives to survive (Garg and Singh, 2006). A change in a punctuated equilibrium environment is usually large and complex, which requires extensive detailed planning (Chia, 1999). Usually, management consultants are required to assist in complex transformation initiatives. Change programs in the episodic change environment are linear and sequential, with definite beginning and ending criteria (Bushe and Marshak, 2009).

Few transformation changes could be implemented successfully, on time and on budget (Avots, 1969; Lawrence and Scanlan, 2007). However, even though the transformation project can be on time and budget, the finished projects are usually out of sync with changing business requirements, which results in additional project change requests (Avots, 1969). One interesting observation from my experience implementing projects in Thailand was that most consultants' change management approaches focused on tangible and deliverable parts of the change. Consequently, a deliverable-oriented change method allowed little accommodation in the dynamic nature of changing business environment.

In a continuous change perspective, the focus of the change switches to interactions of the change activities. Under the continuous change perspective, stability is not the focus of the system. The stability assumption underlying traditional plan-oriented project management is not appropriated. A flexible approach to change management is required (Sunner, 2016). Because of the uncertain nature, circular and reflective approaches to change management are invented. Agile working concepts are invented to change management practices (Ewenstein et al., 2015).

#### 3.4.1.2 – PRESENT VS FUTURE

For business sustainability, managers can focus on the best utilisation of a company's limited resources: to extend the existing competitive advantage or continuously build future capabilities (Uotila, 2018). Assuming the market environment's stability, companies can focus on a present environment to sustain existing competitive capabilities. Companies need to transform when an environment changes, creating new capabilities reflecting the S-Curve theory (Adner and Kapoor, 2016; Taylor and Taylor, 2012). The present focus of change philosophy is dominated by cybernetics system thinking, which relies on negative feedback for strengthening and sustaining existing competitive capabilities. Thus, the change will be an episodic approach, as present capabilities are out of date. The most prominent episodic IT implementation practice is a traditional plan-based implementation model (Ahimbisibwe et al.,



2017). Once scopes, efforts and timeline are fixed, the traditional plan-based project management technique will keep the "present" project environment stable. By the time the project finishes, the project context is out of date.

The future-oriented thinking reflects the dynamic capability concept, in that current competitive capabilities are always out of date (Eisenhardt and Martin, 2000). Companies must think ahead, looking for new capabilities to sustain profitability. Emerging technology challenges from open innovation mechanisms cause a continued shift in technology s-curves (Adner and Kapoor, 2016). Technology foresight practices help corporates continuously manage their technology capabilities (Linstone, 2011). Technology foresight is used as a future-oriented technology and change management (Armenakis and Bedeian, 1999; Cagnin et al., 2013; Iden et al., 2017; Sarpong and Maclean, 2016). While maintaining an existing competitive advantage, a company must actively sense market forces and identify future technology for continuous evolution and development.

#### 3.4.1.3 – SEQUENTIAL VS NON-SEQUENTIAL

Change Principles can also be understood through two different management philosophies. The sequential assumption reflects a linear approach to managing changes. For example, planning is done sequentially in a traditional project management approach (Ahimbisibwe et al., 2017). When encountering a complexity in real-world implementations, the project management team, with deductive assumptions, trades off three project components: time, scope, and effort (Kerzner, 2017). The management assumes a fix-pie approach in interchanging among the three factors. If the scope is overblown, project management must cut down scope if wanting to contain implementation time or increase time and efforts if wanting to entertain the scopes. Usually, in real life, the efforts are fixed at a budgeting level. It is typically seen as troubled projects because of the effort fixed (Avots, 1969). The fix-pie situations cause lawsuits and more.

The other end of the epistemology, social constructivist, non-sequential project management approaches, like agile, are used to manage project complexity (Ahimbisibwe et al., 2017). Instead of focusing on maintaining an as-is situation, the social approach to changes focuses on project integrations' interactions and dynamics. So, the dynamics of changes are difficult to control and emerge. In contrast to the sequential change's controlling focus, change leaders with the non-sequential change mindset submerge into interaction networks using influencing and persuading skills to the changes (Denning, 2016b). Recent developments in the process-

oriented perspective method argue that the value chain's traditional concept cannot explain the complexity of changes (Worley and Mohrman, 2014). Instead, complex concepts of value grid, value constellation, and complex responsive process have been introduced (Jinsong and Shufang, 2010; Pil and Holweg, 2006; Stacey, 2001).

#### 3.4.1.4 – HIGH-LEVEL VS DEEP-LEVEL

The change levels related to Schein's layers of organisation culture: artefacts, espoused values, and underlying assumptions (Hogan and Coote, 2014). The most superficial layer of the culture is visible and can lead to misinterpretation of organisation culture (Tolfo et al., 2011). Because it is visible to most observers, management and consultant included, change activities can be efficiently designed for any transformation program. Under an iceberg of organisation culture (Haider, 2009), the visible layer includes a formal and visible aspect of organisation culture (Hogan and Coote, 2014). The next layer consists of espoused values between the visible and invisible part of the cultural iceberg. The espoused values include strategies, philosophies, policy, power patterns and group norm. With some experience with a company, outsiders can potentially make sense of the espoused values. The third layer, basic underlying assumptions, is the most difficult to detect, invisible (Tolfo et al., 2011). The underlying assumptions link to common believes, thoughts, perceptions and feeling that drive organisational culture. The layer is the most difficult to change. Haider (2009) also links the layers of organisational culture to an aspect of knowledge. In line with reflective practices, tacit knowledge at the bottom of the iceberg is the target of any change program. To change the culture at the deepest level, assumption and tacit knowledge, dialogue-experience learning cycle, which leads to reflective practice, can be an appropriate change approach. Because the deep-level change impacts social and psychological behaviours, the change is the most difficult to accomplish (Tolfo et al., 2011).

#### 3.4.2 – INTEGRATED VIEW FROM THE FOUR PERSPECTIVES OF CHANGE

The four perspectives of change share common assumptions. One group of change is based on the thinking of positivist, which prefers stability in present timing. The other group views change as the complexity and emerging nature of social constructivist epistemology. The uncertainty is the nature of dynamics and future-oriented thinking. The change management approach is characterised as episodic, present-focus, sequential, and high-level change in the perceived stable world. While in the complex and uncertain world, change management reflects the continuous, future-oriented, non-sequential and deep-level change. Bushe and

Marshak (2009) define a positivist-based mode as a diagnostic change. The diagnostic change assumes a stable environment. Thus, change managers can define gaps between as-is and to-be environment. Then, change managers plan actions that can move organisations from the as-is to the to-be stage. For the social constructivist-based mode, change assumes complexity and interactions among stakeholders involved in the change. Thus, a different approach to the change is needed. Bushe and Marshak (2009) call the interactive mode of change a dialogic change. The two modes of changes will be explored in the following sections to derive an appropriate change strategy for the agile working implementation in the Company context. Figure 11 summarises the characteristics of the two change models.

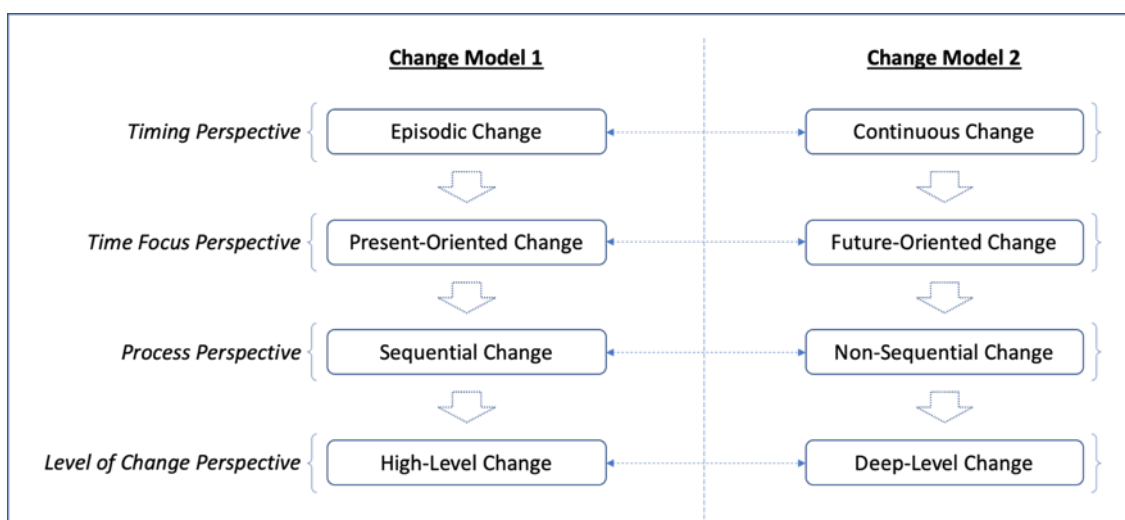


FIGURE 11: MODELS OF CHANGE

### 3.4.3 – 2 MODES OF CHANGE

#### 3.4.3.1 – DIAGNOSTIC

The four perspectives of change reflect two modes of change applied to dis-intermediation/democratisation environments. In a non-democratised environment, management demands control over changes. When stability is the focus, changes happen episodically. Change model 1 (in Figure 11) is the appropriate model of change. Bushe and Marshak (2009) referred to model 1 as a diagnostic change (Figure 12). Diagnostic implies managing change from outside of a to-be-changed system. Diagnostic implies the role of an expert, who defines organisation problem and required future organisation characteristics. The expert designs what to change and which actions to take to achieve the designed goal. The change process is sequential and linear, starting by defining an as-is organisation and the to-be organisation, identifying gaps to move an organisation toward the to-be stage and planning the

transformative actions. During the executions of changes, the expert would do three change steps: unfreeze, change, and refreeze (Armenakis and Bedeian, 1999). This episodic model of change has dominated consulting practices. Management consultants help companies to diagnose organisational problems and execute the designed changes. To control the planned changes, project managers use linear project plans to govern the changes. A traditional waterfall project management methodology is an example. Project managers also use negative feedback mechanisms to monitor project performance. The approach implies managing from outside a system mindset of deductive diagnostic change management.

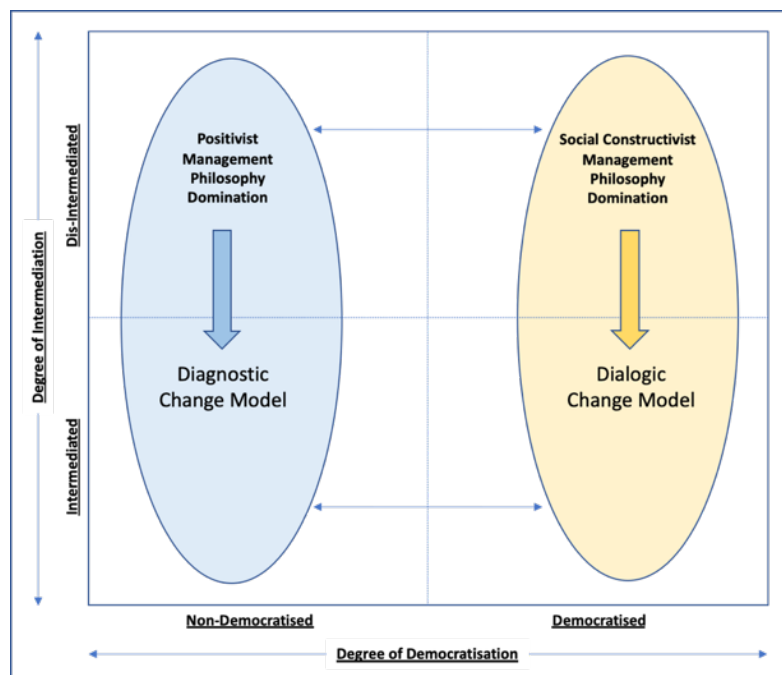


FIGURE 12: MODELS OF CHANGE AND DEMOCRATISATION MATRIX

### 3.4.3.2 – DIALOGIC

Alternatively, change model 2 is more appropriated with a democratic change environment. Bushe and Marshak (2009) referred to model 2 as a dialogic change (see Figure 11 and 12). Dialogic implies a mechanism of dialogue used in change. Dialogue reflects interaction and communication among stakeholders in a system. To change through interactions, change experts cannot just design and execute from outside a system. The experts have to participate in a system and stimulate dialogue. Healthy dialogue leads to a more in-depth reflection.

Consequently, change can happen at a more profound organisational culture level (Hogan and Coote, 2014). In dialogic change, change experts influence the meaning-making process of a situation reframing. The meaning-making helps participants to interpret a situation. The

meaning-making then leads to the framing and reframing of a situation. The framing and reframing dialogue guides reflexive and reflective practices, which results in a new interpretation of meanings among participants in a system (Bushe and Marshak, 2009). The dialogic approach opens for emerging opportunities to change conditions. While the diagnostic change approach designs change activities before intervening, the dialogic intervenes change in a system as it occurs.

A traditional consulting practice might not be suitable for a change program from the aspect of dialogic change. Instead of a major transformation program, change experts continuously manage change daily through day-to-day interactions and dialogues. It is more appropriate to have internal consultants for the dialogic change. Because the dialogic change is continuous, there is no definite start and end date. The traditional plan-based project management approach is not viable in dialogic change. More appropriated methods have a cycle interactive approach to promote dialogue among participants in a system. Agile working has been innovated to use within the dynamic environment (Alaa and Fitzgerald, 2013).

### 3.5 – AGILE WORKING AS A MODE OF CHANGE

The agile principle is designed for a dynamic, fast-changing environment (Sunner, 2016). In a decentralisation world, managers use processes to control the qualities and consistency of end work products. However, in agile working, a decentralised approach is used to stimulate participation among related individuals. Agile working does not focus on processes, tools and documentation but a working solution (Denning, 2018). Through interactions and collaborations, team members negotiate and respond to change requests (Denning, 2016a). A working solution focus of the agile approach differs from a perfect solution, which focuses on the traditional waterfall approach (Darrin and Devereux, 2017).

The majority of agile methodologies focuses on a positivist-based epistemology. A positivist-based agile working focuses on productivities in responding to rapid changes in a dynamic market environment (Babb et al., 2014). The positivist-based agile working reduces the traditional waterfall project management practice into a series of small plan-act-reflect-re-plan cycles. The reductive agile approach is to freeze changing requirements into a manageable piece of work. Then, the project plan is adjusted to both changing requirements and reflection of the action taking in the previous cycle. Because of the rapid adjustment cycle, the focuses of the project have shifted from documentation and process controls to a working solution that meets customers' requirements.

The reflective practice in the agile working initiates theoretical development from a social constructivist perspective to facilitate changes in a complex environment (Alaa and Fitzgerald, 2013). In a social constructivist paradigm, the criticality of implementing agile working is to derive the balance between productivities and team interactive learning. The learning provides an arena for the team to reflect and acquire new knowledge to shape an organisational change attempt. From a complexity perspective, experience and learning come from group interactions and complex responsive processes (Benton and Radziwill, 2011).

The core principle of agile working is the enablement of interactions among participants in an agile setting. The enabling mindset in an agile setting contrasts with the underlying command-and-control principle in the traditional positivist working approach. The agile management practices embody an "enabling" mindset, with an explicit trust in the talents and capabilities of the members, along with the belief that if the organisation provides the right environment, values, and goals, the team will deliver continuous value and innovation for the ultimate users and customers.

Agile working is based on several working principles. Agile working divides work activities into manageable short cycles (Sunner, 2016). The short cycles allow an agile team to manage the complexity of emerging changes logically. By reducing complexity into a small cycle, the project team's frustrations are managed and reduced. In agile working, management does not interrupt an agile working team during agile cycles. No interruption allows delegation of authority to the team level, enabling leaderful development at every level in an agile organisation (Raelin, 2011). Leaderful enable agile team will decide their pace and dynamic of works. They plan their work. They decide how much work and how to do it in each iterative cycle. They are also responsible for their performance. What managers do is to remove obstacles and impediments for the agile working team systematically. Besides, managers can also stimulate context-specific reflection among the team (Bäcklander, 2019). The context-specific reflection is critical for agile working to be successful.

However, Because of the rapid nature of agile working iterative cycles, productivities can get a higher priority compared with reflection practices. Babb et al. (2014) identified an appropriate way to embed reflection and learning into agile working. Reflection plays a crucial role in balancing the productivity and learning aspects of agile working. Group programming and pair programming provide an opportunity for embedded reflective-on-action and reflective-in-action into agile working.

Gutierrez et al. (2019) also argued that the agile team must be self-managed to implement agile practices successfully. In achieving self-organised teams, team members must be empowered with self-autonomy by their leaders. To cultivate an autonomy culture, leaders must consider their firms' underlying management philosophy. Goleman's framework of emotional leader styles is recommended in a traditional organisation where a hierarchical structure is clearly defined (Gutierrez et al., 2019). However, Marquet's framework is more appropriate in a flat organisation because it focuses on narrative interactions and communications (Gutierrez et al., 2019).

If properly implementing Agile working, changes can affect all three culture levels (Tolfo et al., 2011). It is argued that implementing agile working is a context-specific implementation, and change managers must carefully craft an agile work approach to each organisation context (Ben Othman et al., 2016; Bunyakiati and Surachaikulwattana, 2016). Boehm and Turner (2005) identified challenges in achieving Agile claim benefits in actual implementation. The major challenge is process conflict between linear thinking paradigm in traditional corporate culture and cyclical thinking paradigm in theoretical agile mindset. Three essential elements for proper agile working implementation include a small integrated team that promote interactions and reflections, a shared customer-focused mindset and firm commitments from other parts of an organisation in executing the agile working (Denning, 2016b). Collectively, the three prerequisites support organisational culture change at all levels. Agile working provides an iterative working process and guideline for an agile team to follow, which helps change an organisational culture at a visible level. A visible process, for example, a SCRUM model, guides the team actual iterative activities the team can follow (Bustard, 2012). The iterative interactions in agile working contribute to self-organise and change the team working practice continuously.

Additionally, agile working provides a necessary democratic working environment for the team. The short iterative process allows an agile team to become flexible, spontaneous and self-efficient. Agile working principles promote collaborations, discussion, participation and commitment among team members, leading to self-organisation, trust and continuous improvement culture. Eventually, agile working will lead to the most rooted belief in people and responsibility.

### 3.5.1 – AGILE WORKING AND AMBIDEXTROUS MODEL OF CHANGE

From the previous discussion, an agile approach to change assumes that the work happens internally within organisations, not external consultants. Internal change experts facilitate a trust and collaboration environment. However, if an agile change is introduced from the outside, trust and collaboration may weaken. The weakening of trust makes agile working unsuccessful. In the Thesis, agile working was introduced to two groups of client-facing teams. The first was the sales team. Because the sales team used agile inside the organisation boundary, the agile working implementation should not face a problem in using a pure form of the dialogic change mode. However, in a project implementation environment where the consulting team interacted routinely with the Client, introducing a "pure" agile working could create conflicts with the Client's working style because the client culture was still in a hierarchical top-down nature. The conflict could potentially create a lower trust environment. The foreseeable conflicts could impede the organisational culture change efforts. Instead of assuming the either-or mindset by selecting either agile or traditional change models, I explored both-and conditions to utilise both changes approaches. The hybrid model could mitigate unnecessary pressures from the organisation change efforts. Additionally, if considering the ecosystem business model strategy that possessed both traditional and agile paradigms (Boehm and Turner, 2005), combining dialogic and diagnostic models of change was an option to explore.

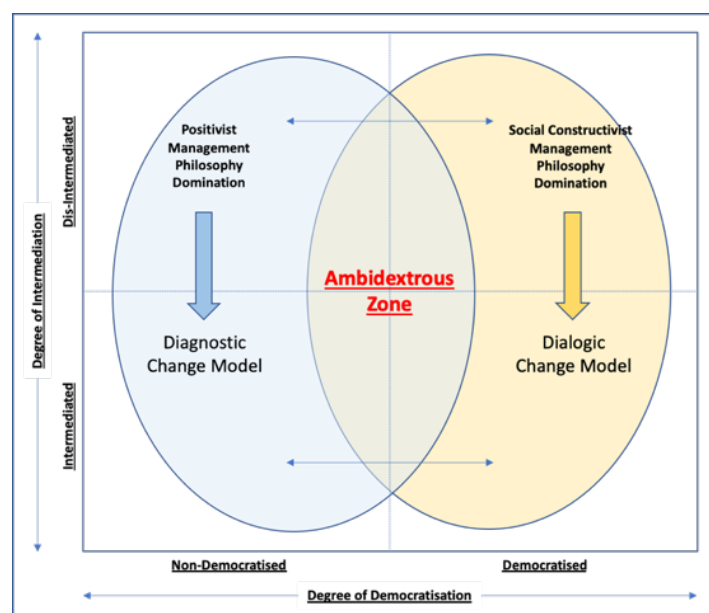


FIGURE 13: AMBIDEXTROUS MODEL OF CHANGE



So, it was reasonable to assume implementing a hybrid agile working in the orchestra business environment required both-and thinking of a paradigm crossing mindset (Schultz and Hatch, 1996). Defining an implementation technique in an ambidextrous zone in Figure 13 and 14 was the way forward for the Company. The concept of ambidextrous helped bridge the differences between the two cultures of diagnostic and dialogic change or positivist and social constructivist mindset (Benton and Radziwill, 2011; Hunter et al., 2017; Lee et al., 2013).

The project manager could utilise both an agile and traditional approach in the project plan (Vinekar et al., 2006). An agile approach could be used early in a project when a project team needed to interact with users to understand the project's real need. During the requirement gathering phase, agile utilisation helped align expectations between end-users and the project teams and define an IT program that answers users' requirements. The project manager could apply a traditional plan-driven project management approach during the test and go-live phase. The traditional project management approach reduced uncertainties from scope overblown. The traditional plan-based project management helped increase the project team confidence in going live the project on time.

Because of the newness of the agile implementation project at the Client's organisation, the hybrid approach provided an agile concept to the Client while complying with the existing IT procurement policy. The Company also gained procurement approval from the Client's management without the bidding procurement process.

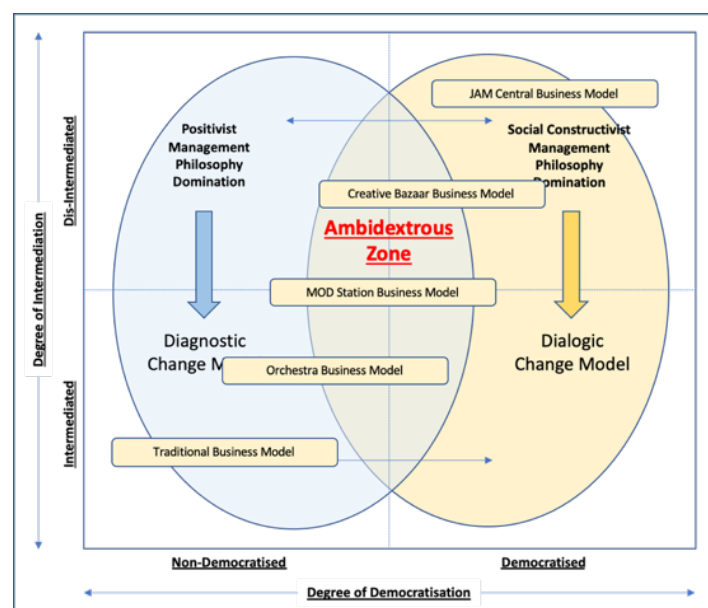


FIGURE 14: AMBIDEXTROUS MODEL OF CHANGE AND ECOSYSTEM BUSINESSES

In achieving both diagnostic and dialogic approach in the project, the project manager could use a diagnostic approach to define what needed to be changed. The diagnostic approach provided concrete supporting reasons for executives to endorse the changes and for the operation team to understand the project. Then, during implementation, agile working was utilised to stimulate interactions among stakeholders. The collaboration and engagement activities during agile implementation stimulated reflective dialogue among participants. The social process of reflective dialogue stimulated self-generated changes and reduced resistance to change (Bushe and Marshak, 2009). At the end of a project, there were emerging changes with lower resistance to changes.

However, there were foreseeable challenges in the implementation of agile working. Even though the ambidextrous approach provided a sound theory to bridge the differences among the two project cultures (Vinekar et al., 2006), the Client's power relation over the project team could challenge the implementation. For example, in the agile working environment, the project team needed to prioritise customer requirements. In contrast, the traditional plan-based project, which focuses on project documentation, could create project process and measurement conflicts (Boehm and Turner, 2005). With a different focus, it was the challenge that the action research inquiry would like to explore.

### 3.6 – BUSINESS MODEL AND BUSINESS MODEL INNOVATION

Section 3.6 focuses on covering how agile working helps the Company attempt to embed reflective practices in personal and organisational learning, integrate its cultures, and expand its ecosystem businesses. The section stated business model research, which has evolved over the last several decades (Foss and Saebi, 2016). The business model initially focused on how a company could architect how to deliver customers' values in more productive ways. Then the business model research turned the focuses toward the linkage between business model and firms' performance. During the last decade, the research has focused on the innovation aspects of the business model. Lastly, the section creates the linkage between agile working and business model innovation, discussed in Section 3.7.

George and Bock (2011) studied business model applications in practice, especially in entrepreneurship research. Business models were used in an organisational design, a resource-based strategic formulation, narrative and sensemaking mechanisms, innovation, and opportunity enactment. In the study, George and Bock (2011, p. 99) defined a business model, in practices, as "*the design of organisational structure to enact a commercial opportunity*" In

the Thesis, the Company business model was set up from the founders' opportunity spotting in the market. The company organisation structure, core interactions and operations were designed to capture the emerging ecosystem business opportunity discussed earlier.

The design of interactions in the business model also provides an understanding of entrepreneurial firms' performances (Zott and Amit, 2007). Coordination and cooperative learning between the Company and its Client was the key to the ecosystem business strategy. The collaborations reduced opportunity costs to the Client to interact with the Company. The agile working was designed so that the Company could respond to the Client's requests effectively.

The research design of agile working and leadership interventions, both active participation and passive observations, also provided sensemaking and sensegiving tools for leaders to communicate to the employees. George and Bock (2011) further identified general mechanisms that helped a business model succeed as the business model research gap. The identified gaps include how a firm exploit emerging opportunities and how entrepreneurship, opportunity exploitation and value creation are interlinked. Because the action research addresses an agile working business model innovation in an entrepreneurship environment, the research provides an opportunity to develop practical knowledge in the area.

Recent business model research has moved toward a business model as a unit of innovation (Foss and Saebi, 2016). Accompanying business intelligent capability, strategic flexibility, and ecosystem strategic alignment among ecosystem members are the core contribution to business model innovation's success (Edward et al., 2010; Foss and Saebi, 2015). To align core interactions across a value change, Edward et al. (2007) suggest a company innovate roles in a value network. The approach was how my Company repositioned itself in the ecosystem of the Client.

Business model innovation research also extends the value delivery mechanism toward organisation capabilities. The dynamic capabilities require leadership interventions and organisation learning (Foss and Saebi, 2015). The business model innovation's organisation dimension provides a foundation to the value-profit exchange among partners, customers and a company (Leih et al., 2015). The value exchanges among stakeholders initiate value chain interoperability resulting in business boundary expansions and reconfigurations (Ibarra et al., 2018). So, business model innovation helps companies expand their value flows, turning from a traditional value-chain oriented to an ecosystem focus.

For the organisation learning aspect, Zainurrafiqi et al. (2020) studied and tested industry data. They concluded that organisational learning increases organisational innovation, which improves a company competitive advantage and business performance. Zainurrafiqi et al. (2020) identified four implementation factors to facilitate organisational learning: management commitment, coordination and interaction, experimentation, and knowledge transfer. Aspinwall (1996) also pointed out collaborative learning as a fundamental of organisational learning. Management must facilitate and support the collective interaction and coordination, open to trial-and-error inquiry and retain the emerging knowledge and learning within an organisation.

Stieglitz and Foss (2015) recommend four leadership roles in business model innovation to smoothening resource coordination in business model innovation activities (Figure 15). The roles are classified according to two dimensions: depth and breadth of the business model change. Leaders assume a sponsor role when there is a radical change in a business unit, which means top management decentralises the innovations but support them when critical decisions are required (Stieglitz and Foss, 2015). In contrast, Leaders must become an architect the business model innovation in the radical to the whole organisation (Stieglitz and Foss, 2015). So, top management actively involves in every decision making. Innovation activities are centralised at the top level. In another scenario where there is an incremental change to a business unit, top management can monitor the decentralised innovation activities with limited interventions (Stieglitz and Foss, 2015). Lastly, the business model innovation, which involves incremental changes in an organisation, require top management to moderate roadmaps and actively participate in conflict management to create coherence to the innovation efforts (Stieglitz and Foss, 2015). The roles of leaders are critical in the business model innovation effort. For example, leaders can support agile working in several approaches: more active participations in company-wide initiatives and more decentralised in low-impact change projects.

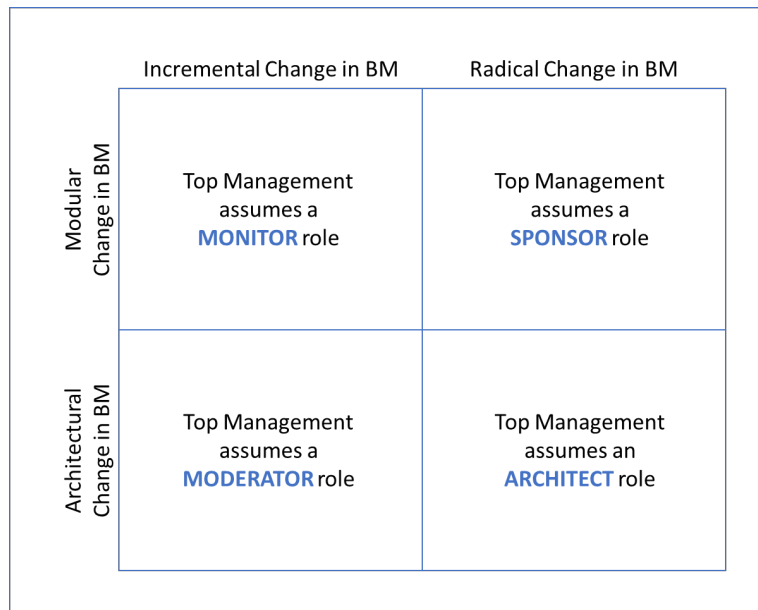


FIGURE 15: TOP MANAGEMENT ROLES IN BUSINESS MODEL INNOVATION

This section discusses the business model and business model innovation. The section provides a foundation for the next section, where agile working links to the business model innovation and the three research questions mentioned in Chapter 1.

### 3.7 – AGILE WORKING AS A BUSINESS MODEL INNOVATION TOOL

This section discusses the applications of agile working in the thesis. Agile working can enable business model innovations, learnings and changes (Brand et al., 2021). The three applications of agile working lead to the inquiries of the three research questions in Chapter 1. Additionally, the section provides building blocks to the reflections and conclusions in Chapter 6.

The section starts with the application of agile working as a personal learning tool. The tool leads to our understanding of the first research question focused on the Company's reflective practices. Then the discussion moves on to address the application of agile as a culture change tool. The implementation of agile working was intended to integrate the fragmented cultures in the Company. The change tool leads to the inquiry to understand the second research question: how agile working helps integrate the company cultures. The last part of the section addresses business model innovation where the objective is to expand the Company's boundary. The boundary expansion helps us understand the third question: how agile working helps the Company evolve in the client ecosystem.

### 3.7.1 – AGILE WORKING AS A PERSONAL AND ORGANISATIONAL LEARNING TOOL.

Foss and Saebi (2015) identified two foundation factors for dynamic capabilities building activities: leadership interventions and organisation learning. Agile working provides mechanisms to help with the two activities. For the leadership intervention, managers can use agile working in different situations. Firstly, management can implement agile working at a business unit level in the radical-modular scenario while providing steering support with a critical decision is needed. For radical-architectural innovation, top management actively engages and centralise agile working and decision making. For the incremental-modular scenario, management can allow agile working as a norm in the organisation routine. Lastly, in incremental-architectural innovation, management can allow a business unit to use agile working to implement the innovation. Management can support a steering committee mechanism but in more directed support compared to the radical-modular innovation scenario.

In the Thesis, I plan two intervention approaches to the action research. The first approach is a centralised agile working where I actively engaged and intervened in the interactions related to sales and business development activities. The approach falls into the radical-architectural scenario. For the implementation project, I use a decentralised approach to agile working. The project director had full authorities to implement agile working in the project environment. Top management only participated when required.

The core mechanism in agile working focuses on interactions and collaborations. Persons must work and reflect together during the Agile plan-act-evaluate-reflect cycle. Agile working facilitates personal learning as described by Lee (2020) in Kolb's learning cycle, which involves attending to experience, observing and reflecting, generalising concepts, and testing the concept. Additionally, agile working promotes interactions among team members. The interactions provide an environment for collective learning. Collective learning is the foundation of organisational learning (Aspinwall, 1996). So agile working facilitates both personal and organisational learning. The reflective practice provided by agile working is the first inquiry in the Thesis.

### 3.7.2 – AGILE WORKING AS AN ORGANISATION CULTURE INTEGRATION TOOL

Organisation culture can be understood through three components, which are "what people do, what people know, and the things people make and use" (Spradley, 1980, p. 5). According to Spradley (1980, p. 6), organisation culture can be defined as "the acquired knowledge people use to interpret experience and generate behaviour." So, if I am to understand the organisation

culture, I need to understand how the organisation has possessed the acquired knowledge. Then, to change the culture, I need to take actions to alter the acquired knowledge.

The acquired knowledge can be learned passively and actively (Benton and Radziwill, 2011). The passive learning approach is based on a positivist paradigm where knowledge gets passed from teachers to students. In an active learning environment based on a social constructivist paradigm, knowledge is co-created through interactions among students while teachers facilitate the interactions.

Comparing with the context of organisational change management, passive learning can be compared to a traditional episodic mode of changes where managers unfreeze acquired knowledge, teach new knowledge and refreeze the newly acquired knowledge. The newly acquired knowledge then guides how organisation members interpret and act. Active learning, in contrast, is a continuous mode of learning. Since the acquired knowledge is newly co-created through interactions among organisation members, the organisation change efforts must be dynamic and ongoing.

Comparing with the context of project management, passive learning can be represented by a traditional waterfall project management where a project has clearly defined start and end dates plans. A project manager set a project plan and executes project activities according to the defined timeline. In case of a project delay, the project plans are unfrozen, re-planned and refrozen. The planning and re-planning activities are like episodic changes in the positivist view. Agile project management allows a regular action, reflection and re-planning cycle in the social constructivist approach (Sunner, 2016). The project activities get re-prioritised every re-planning cycle. In some projects, the re-planning cycles happen weekly. Some are daily cycles. The reflection process in the social constructivist agile working approach provides the tool for organisation members to acquire organisation knowledge and build their mental models (Frisque and Chattopadhyay, 2017).

Since the Company consisted of merging groups of people from different backgrounds, the Company's culture integration efforts could be comparable to a mini-M&A integration. As reflective practice was identified as a catalyst for an organisation culture learning (Knipfer et al., 2013), agile working could help the Company acquire the integrated enterprise culture through employee self-improvement (Feng, 2010). Yao and Shi (2010) suggested a four-stage culture integration framework that could promote an integrated deep cultural learning. The suggested four-stage framework was similar to an action research process, which consisted of

pre-planning, planning, implementing, and evaluating cultural integration activities. So, the reflective practice in agile working could help to stimulate deep learning and culture integration.

### 3.7.3 – AGILE WORKING AS A BOUNDARY EXPANSION TOOL

The advance of technology has changed the nature of business competition. The new competition requires innovative ways for companies to collaborate and operate. Organisation dynamic capabilities and business ecosystems focus on becoming the critical factors for the next generation competition (Teece and Linden, 2017). Organisation dynamic capabilities help companies to reallocate resources more effectively (Schneider and Spieth, 2013). The dynamic resource allocation allows firms to capture business boundary expansion opportunities with firms' ecosystem partners (George and Bock, 2011).

Agile working can be used as an orchestration mechanism in ecosystem collaboration. Agile working helps the Company reorganise its resources effectively to respond to changing market conditions (Stephen, 2015). Through agile working, the Company can effectively collaborate with the Client to capture the identified ecosystem opportunity. The interactions and collaborations with customers are fundamental to effective customer relationship management (IsmanĀ-Ilisan, 2018). Agile working provides an orchestration mechanism for the ecosystem business innovation. The third research question provides an inquiry to understanding the agile working effect on the ecosystem expansion.

## 3.8 – THE LEARNING FRAMEWORK

In the last section of the Chapter, I would like to revisit the literature review flow, highlighting five components of the action thesis. The first is agile working, as discussed in section 3.7. Agile working is the focus of the change actions. Agile working requires leader actions and interventions. The practice of management interventions help develops first-person learning. Agile working provides the environment for the organisation to interact collectively. The collective interactions provided by agile working leads to organizational learning. The last two components are the organisation routine and the company ecosystem expansion. The results from both components provide meta-learning for third-person learning. The meta-learning helps me to generalise third-person learning to a general practitioner and academic communities.



The flow for the literature review leads to my conceptual learning framework, which was applied throughout the action research (Figure 16). Agile reflective practice provides the foundation for my learning as well as organizational learning. The reflective practice facilitates an individual and the organisation to learn through single and double-loop learning (Argyris and Schon, 1978).

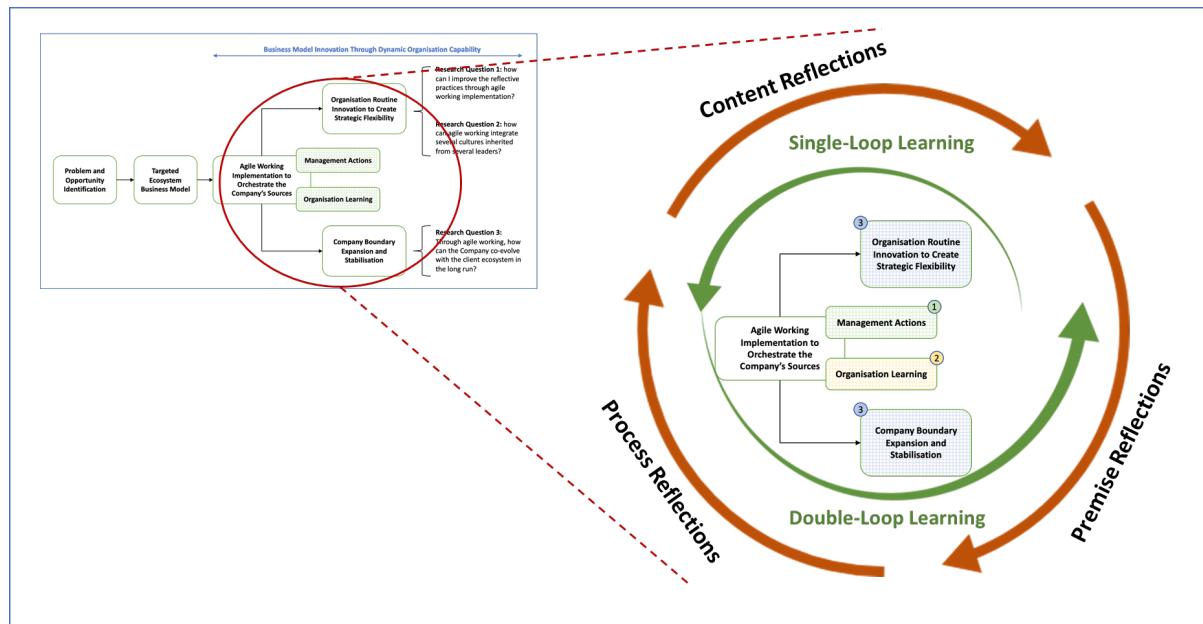


FIGURE 16: THE LEARNING FRAMEWORK

Single-loop learning represents the simplest form of learning where a person learns to solve a problem (Argyris, 2004). The learning happens without a reflective practice to challenge underlying assumptions (Lawler and Sillitoe, 2013). It is superficial transactional learning where we see in everyday life (Jaaron and Backhouse, 2017). While double-loop learning represents a deeper learning level, underlying assumptions of the problem are investigated and reflected (Argyris and Schon, 1978). Rowley (2006) argues that double-loop learning is a catalyst for a transformative learning process and knowledge creation in an organisation.

Coghlan and Brannick (2014) utilised Mezirow's critical reflection to provide three foundations of a meta-cycle inquiry in the thesis action research cycle. The three foundations are content, process and premise reflections. Simply put, content reflection focuses on the "what" aspect of an inquiry. Process reflection investigates the "how" aspect of the inquiry. Finally, premise reflection answers a "why" part of the inquiry (Coghlan and Brannick, 2014, p. 14). While single and double-loop learning is utilised in the core action research, Mezirow's

three critical reflections are the learning mechanism in the thesis action research cycle (Coghlan and Brannick, 2014).

### 3.9 – SUMMARY OF CHAPTER 3

The Chapter summarised the use of literature to understand the organisation issues. The Chapter addressed assumptions underlying the targeted ecosystem business model. The Chapter led to the Orchestra business model, which dominated the Thai market. The Chapter then aligned business models with models of changes. The alignment helped the Company to select a dialogic change as the focus of the action research.

As the agile methodology dominated the banking IT market in Thailand and provided a dialogic change mechanism, I decided to introduce agile working to the Company. I realised that agile working stimulated social interactions, which could lead to organisational changes. Thus, I decided not to follow a traditional agile methodology but instead try context-specific hybrid agile working.

The Chapter also provided an understanding of the required change situation, which were a combination of diagnostic and dialogic changes. Executions of the change actions led to emerging actionable knowledge in the Company'. The action research inquired into how the hybrid agile working approach helped to solve my workplace-based problem.

Part 3.7 discussed Agile as a business model innovation tool that helps understand the three research questions: reflective practices, culture integration, and ecosystem expansion objectives. Lastly, the learning framework used to derive learning for the research was described in part 3.8. The learning framework will be revisited later in Chapter 6.

As mentioned in Chapter 2, the first cycle focused on applying the hybrid agile working to the project implementation and sales teams. The objective is to find the challenges that may emerge from the attempts. The cycles after that will reflect the adjustments to the agile working implementation to my company situation. The learning from agile working was reflected in Chapter 4 from a practitioner's perspective and in Chapter 5 from an academic's perspective.

## CHAPTER 4 – OVERVIEW OF THE ACTION CYCLES

### 4.1 – INTRODUCTION TO CHAPTER 4

Having framed the Company issue through the literature review in chapter 3, I will now explore the company's actions under the agile working approach. The agile working was utilised throughout the execution period. The literature review chapter provides a starting position for action in cycle 1. Chapter 3 defined agile actions as the principle for the cultural change effort. The purpose of the agile actions was to create a working environment that allowed the Company to co-exist in an ecosystem business environment.

Chapter 4 describes the actions and reflections of the actions from the practitioner point of view. Chapter 4 narrates my actions as a manager, while in chapter 5, the actions will be discussed from an academic perspective. Because an agile approach works similarly to an action research cycle, which comprises construct-plan-act-evaluate loops (Coghlan and Brannick, 2014), so I structured a combination of mini-agile and regular action cycle as in Figure 17.

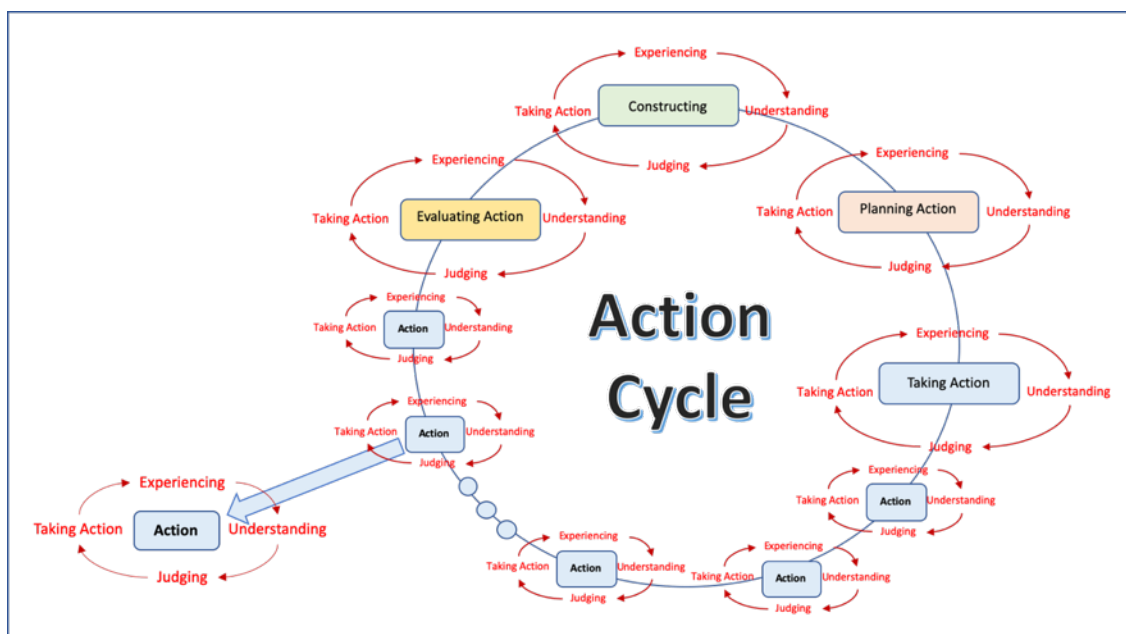


FIGURE 17: ACTION CYCLE APPROACH

The primary action cycle consisted of four main steps: constructing, planning action, taking action, and evaluating action steps. I applied agile working to taking action steps. The actions were review and adjusted regularly. Thus, there was a series of agile action loops in the taking-action step. For example, in cycle 1 (Figure 18), we planned to implement account

management integration in hybrid agile project implementation, as mentioned in Chapter 3. The account management integration implementation lasted for 5-6 months. Each week in Cycle 1, we discussed, judged and adjust actions for the following week activities. When we found significant problems with the integrated account management approach, we evaluated the macro strategy for the first cycle. We then reconstructed the macro plan and moved to Cycle 2, where we separated sales from implementation works.

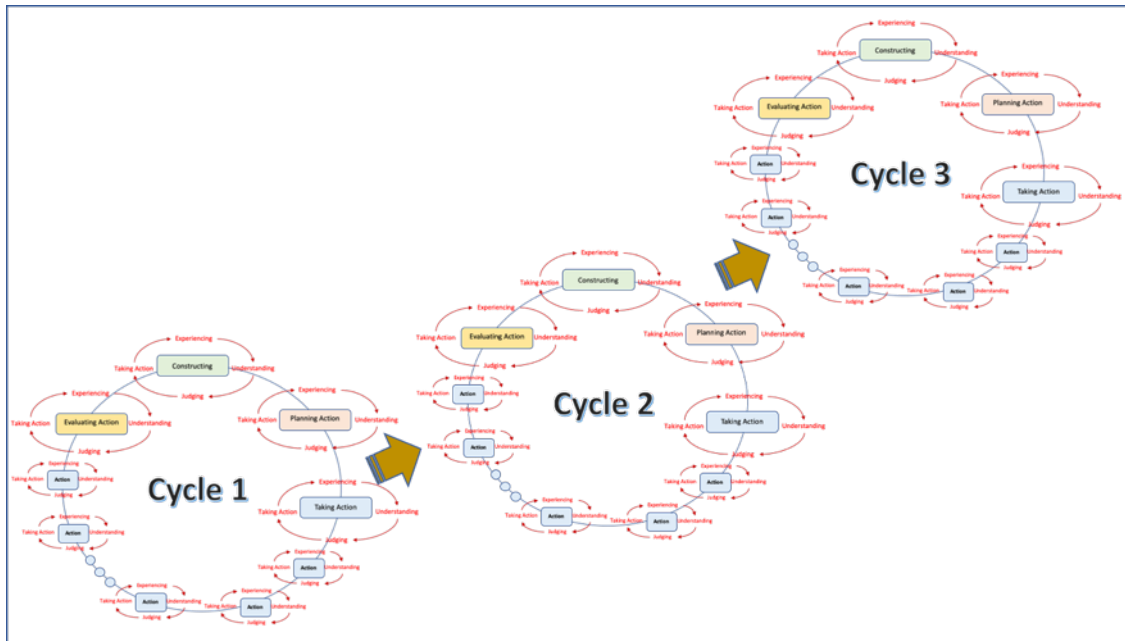


FIGURE 18: STRUCTURE OF ACTION CYCLE

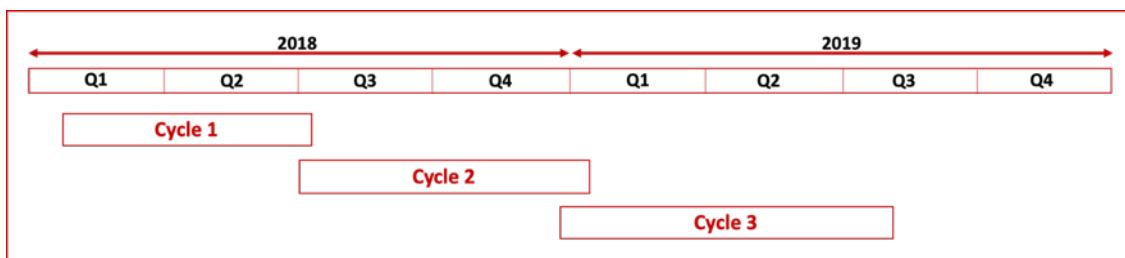


FIGURE 19: ACTION RESEARCH CYCLES TIMELINE

There are three distinct cycles in the action research cycles (Figure 18 and 19). The first cycle started with the taking-action mode. Because the Company's original intent was to become a member of the client ecosystem, both project and sales activities were structured around an account management approach, where sales and implementation focused on customer success. Sales and project implementation agile works were integrated into a strategic account management approach. Sales supported project implementation expectation management, while project work supported cross-sales and up-sales opportunities at the client.

In the second cycle, there were difficulties raised from the agile implementation approach. The dynamic of the agile work inevitably generated additional requirements and functionalities for the implementation project. The increased requirements caused a difficult time for both sales and implementation teams. The second cycle focused on the difficulties during Q3 and Q4 of 2018. The hard time forced the sales team to rethink the sales strategy. Instead of focusing on one account, sales management decoupled from the implementation work and explored prospects outside the intended ecosystem. While the project team worked out problem resolutions for the increased project demand, the sales team replicated the implementing solution to other banks with similar business strategies to the targeted bank. Throughout a difficult time, project and sales teams had found ways to cope with the difficulties. Through backlog prioritisation and planning, the Company and secure the implementation contract extensions were secured.

In the third cycle, the management adjusted the Company strategies to expand growth opportunities. So, the management decided to reorganise the sales unit. The sales unit was split into an account management unit and the business development unit. The account management team was assigned to work alongside the implementation team to support the existing client. The objective was to ensure successful project implementation, build and maintain a relationship with the client and cross-sell to the existing client. Business development was assigned to expand businesses through new product and partnership development. The goal of the business development team was to build long-term sources of revenues for the company.

## 4.2 – CYCLE 1: INTEGRATED ACCOUNT MANAGEMENT

### 4.2.1 – OVERVIEW OF CYCLE 1

The first cycle (Figure 20) covered the period between Q1 2018 to early Q3 2018. Even though the project was kicked off in early Feb 2018, data collection activities for the first cycle started right after the ethics approval at the end of March 2018. In February, the project and the client agreed that the project execution would be a hybrid model, combining agile implementation methodology and traditional waterfall methodology. The project used an agile approach during the requirement and configuration phases. In comparison, the traditional waterfall methodology was used to manage testing, data migration and go-live activities. The bank president and the Company agreed, during the scope negotiation, upon the hybrid implementation, hoping to capture benefits from the ambidextrous implementation approach.

The traditional implementation approach allows the bank to control project scope, timeline and investment costs. Because the bank could not fully understand the detailed requirements of the new system at the project kick-off, the agile approach during the requirements and configurations provided business users flexibility to reprioritise functions and features as the users understood more of their requirements.

Our management team anticipated implementation problems from the hybrid approach, including requirement uncertainty and the project risks transfer from the bank to the vendor. In responding to the hybrid implementation-related problems, we executed an integrated account management approach to manage the client. The integrated account management required the sales, account manager and project team to be far more customer-oriented than a traditional account management model (Lacoste, 2018). The team needed to possess in-depth knowledge of the account to respond to customer's needs. The goal of the integrated account management effort was to stimulate repurchases from the bank. Our management team agreed to position the project manager to have dual roles: a project manager and an account manager. This way, the project manager could grasp any opportunity that arose. With the in-depth knowledge of the customers, the project manager could position the Company as the successful system integrator and a vendor of choice

#### 4.2.2 – THE PLANNING OF SALES AND IMPLEMENTATION CYCLES

Sales and implementation cycles were designed to happen concurrently. A weekly implementation meeting was designed to become an integrated account management coordination where the sales and project team met and shared information and reflection. The coordination helped to prioritise activity backlogs so that sales and project management could focus their activities for the period.

Sales acted as a communication team for the project. The primary responsibility of the sales team was to manage customers' expectations, especially with the customer senior management team. The expectation management was to ensure the proper flow of project information, ensuring that customers understood the whole project situation. Expectation management contributed to relationship-building activities. The proper flow of information helped balance power relation in the project environment because the customer project team realised the sales access capability to top management.

For the implementation project, five releases were initially planned for the requirements and configuration phase. From February to April 2018, the first two releases were executed as planned. The first two releases covered basic requirements where the software supported most of the requirements. However, when entering the third release of the implementation, the discrepancies between the standard functions of the software and the specific requirements of the client's operations became more prominent. The team found out that the bank's legacy software contained functions beyond regular factoring functions. So, the invoice-factoring users wanted the project team to build a complete system replicating their legacy system. Thus, the users demanded the project team incorporate a significant portion of non-factoring related functionalities. The agile requirements discussion generated an extra 100% of the original plan. For example, trade finance and portfolio management systems were added to the requirements. The project implementation scopes had increased from five releases to nine releases.

#### 4.2.3 – REFLECTION FROM IMPLEMENTATION OF THE FIRST CYCLE

I organised the flow of reflection during the first cycle as follow. Firstly, I discussed my reflections during the sales cycle. The sales cycle was executed as an integrated account management approach. The integrated account management reflected my dual role as sales and project manager supervisor. My dual roles did not facilitate my integrated account management efforts. The second reflection area covered the hybrid effort to combine traditional project management with agile working. Because the two approaches possessed fundamental differences, the client organisation abused the hybrid approach to have the vendor complied with both requirement changes and fixed-fee project payments. Then I also reflected upon the bank organisation history, why the bank had complex organisation cultures and its current project management situation. The history made the bank challenging to work with. However, if a vendor understood the history and working dynamics, the vendor can co-exist in the bank's ecosystem.

##### 4.2.3.1 – INTEGRATED ACCOUNT MANAGEMENT

I used an integrated account management approach to manage the relationship with the Bank (Dudley and Narayandas, 2006). I assigned two roles to the project manager: project and account management. With the in-depth knowledge of the customers, the project manager could effectively identify any emerging sales opportunity. Then, the sales team took over the

sales activities from the project manager. The sales team also supported the project manager in customer expectation and communication management.

The approach effectively worked until I assumed an active sales role at the Bank. As the MD, I was the project manager boss. As the sales, I was supposed to report to the project manager. My dual roles complicated the dynamic of the account management mechanism. My visits to the Bank were perceived as escalation signals (Gioia and Chittipeddi, 1991). As I regularly visited the client's top management to discuss potential sales and listen to any suggestion, the client project team perceived my visits as project interventions. For example, when I introduced a gamification approach to the client's head of product management, the client project lead asked my project manager about the meeting. My project manager reassured me that I did not escalate any issue to the executive. The account manager tried to keep me out of the sales loop to preserve the escalation mechanism, in which the client management would contact me in case of critical issues that require management decisions.

#### 4.2.3.2 – AMBIDEXTROUS (HYBRID) PROJECT MANAGEMENT

The ambidextrous project approach came from a trial-and-error effort of the bank president initiative. Initially, the bank president wanted the project to use a pure agile development methodology. We opposed the agile approach during a discussion of scope because of the bank's fixed-fee procurement method. Eventually, the pure agile approach was compromised and a combination of agile and plan-driven approaches was used.

The traditional project management approach is plan-driven. The approach is expected to have little change in requirements. In other words, it is a change-resistance way to implement projects. However, since agile focuses on customer satisfaction, changes are inevitable. The project manager was trying to do control project changes and satisfy customer satisfaction. To do this was to gradually use political and social skills to adjust the scope and budget gradually. Several change requests then became a simple tool to bridge the gap. However, before change requests could be executed, a series of actions and interactions must be carefully planned.

By implementing the hybrid implementation approach, the project faced several challenges. The challenges forced the evolution of sales and implementation efforts. The project teams had self-organised themselves into tribes (Alaa and Fitzgerald, 2013). Each tribe tried to defend itself from the impacts of the two implementation models. Before discussing the teams' self-organising dynamics, I would like to address the differences between the two project management approaches. The differences were interrelated to one another. The inter-



relationships among the differences made it difficult to group the differences into mutually exclusive categories.

#### 4.2.3.2.1 – DIFFERENCES IN UNDERLYING PROJECT MANAGEMENT EPISTEMOLOGIES

As I reflected down to the epistemology level of the differences, I believed the difference was between positivist and social constructivist natures of project management. For the positivist-based project management, the objective of the project methodology was to maintain the stability and predictability of the implementation (Vinekar et al., 2006). The traditional project management focused on balancing three project components: scope, schedule, and budget. The balance and trade-off among the three components were the fundamental project management principles (SĂVESCU, 2018). On the other hand, for agile project management, the focus was not on stability but flexibility. The social constructivist nature of the belief led to the understanding that interactions among the project stakeholders inevitably evolve the requirements of the implementation. Users and project teams understood more of their requirements once the project was implementing. Consequently, the agile implementation principles were not on the scope-schedule-budget balance, but the re-prioritisation of the evolving user requirements (Darrin and Devereux, 2017).

The fundamental differences between the two project implementation approaches impacted the risk appetites of people who applied the two approaches. According to Jamieson et al. (2005) and Ahimbisibwe et al. (2017), the dominant assumption difference between traditional project management and agile project management was in the change avoidance attitudes of the approaches. Changes are to be avoided in traditional project management, while changes are regular in the complex implementation world. The assumptions impacted the focuses of each project management approach. With the change avoidance assumption, the traditional method focuses on plan-based controls. Variances are the measurements used in project management. However, the change-non-avoidance assumption in agile project management allowed the agile method to focus on customer satisfaction. Usually, end-users of agile were those who use the results of the agile. Thus, the earliest usable products were appreciated. Quick functionality releases were the measurement of success.

The uncertainty-avoidance assumption also led to how an organisation procures the development of the solution. In the traditional uncertainty avoidance approach, buyers procured the solution in such a way that they could control any financial loss from the solution development. Thus, a fixed-time, fixed-scope procurement style was employed to ensure the

highest value delivery for the investment money. The uncertainty-avoidance procurement approach had been practised and become tacit knowledge in procurement practices. When the client adopted an agile management approach, it unconsciously referred to the tacit traditional procurement mechanism. While the traditional procurement process aimed to fix prices for the project, the agile implementation focused on flexible scopes. The discrepancy between fixed-price and flexible-scope created difficulty to project management. It was like giving a blank cheque to the customer. We needed to manage the client not to cash out an unreasonable amount from the blank cheque. So, interestingly, complex projects were suffered from an increase of scopes and added costs (Jamieson et al., 2005).

Below is the information for a filed note during a project implementation discussion with the Client.

- “[The CEO] would like the project to try agile project methodology during the requirement phase. We will arrange sessions with an agile coach to train your project team on the concept.”

The bank selected a hybrid approach to mitigate implementation risks. If the project fails, the bank absorbed minimum loss because the bank already fixed the budget component in the scope-schedule-budget trade-off mechanism.

#### 4.2.3.2.2 – PROJECT MANAGEMENT SKILLS

Differences in the two project management approach required different project manager competencies. The agile working approach required the project manager to have exceptional complexity management skills in the bank’s complex environment. Several factors contributed to the complexity (Zaman et al., 2019). The first one was the project structure. At least five parties were involved in the projects, including the end-user of the platform, product manager, project management team from the product management group, the bank IT team and my company (Figure 20). The bank IT team had played the gatekeeper role from the vendor point of view and was the party that asked for the implementation budget from the product management group. Then the bank IT team reallocated the budget to the vendor team. However, we did not get hired directly from the bank IT but directly from the bank. Consequently, both the bank product management group and bank IT team had power relation over the vendor.

In requesting the total project budget, the Bank IT team marked the vendor's proposed budget significantly. Bank IT subsidiary captured a large budget, while the vendor performed a significant amount of the project efforts. For example, the bank hired us at X USD, but the bank TI requested a budget of 10X USD from the bank. When considering the workload and the responsibility, we carried most of the workload and responsibility to finish the project. Hence, bank IT must create a perception from the bank of its value.

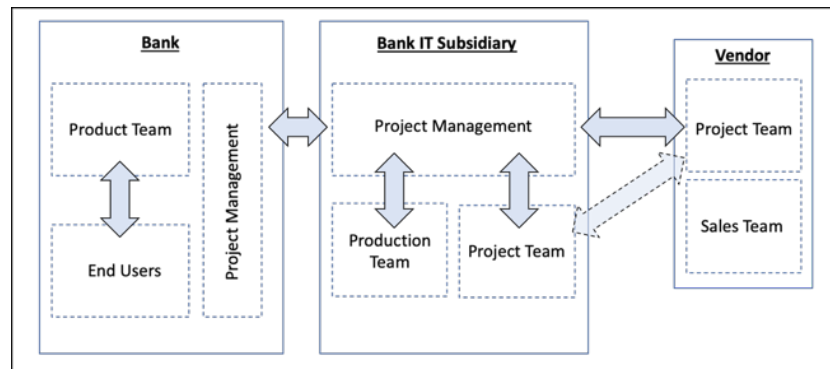


FIGURE 20: PROJECT ORGANISATION COMPLEXITY

In addition to the gatekeeper from the IT side, another party played a gatekeeper role from the bank user side. The bank created its project management team within the product management group. The project management team resulted from the reorganisation two years ago when the bank decides to spin off the IT group create a separate IT subsidiary. Not all project management team were willing to move out of the bank to join the subsidiary. Instead of laying off the non-transferring project management personals, the bank created a project management office at the bank. The project management unit was then placed in the product group to unload the communication workload from the product manager. The intention was well-grounded, but the reorganisation has created another gatekeeper situation, reducing transparency and increasing complexity in the working environment. The gatekeepers, both bank IT and the project management team of the product group, controlled information flows between external vendors and the end-users of the IT system. End-user requirements got translated along with the gatekeeping activities. The interpretation of the requirements created misunderstanding in the actual requirements, resulting in several reworking and corrections system designs. The uncertainty, if evaluating from a positive point of view, created an ideal ecosystem situation. Vendors who can fit into the complex ecosystem can co-exist with the bank. However, there was a negative impact on the project. Because project managers must handle complex project environment, there must be some soft skills that project managers required.

Social and political skills were other essential skills the project manager can exercise to tailor the complex project environments to the project manager's favours (Zaman et al., 2019). For example, the project manager could apply some arbitration tactics in ensuring power shifting under the project manager power. The project management, working with Sales, could regularly arrange executive visits to communicate power communication game within the project environment. The skills were critical in the day-to-day project management context and renegotiated the project's increasing scope while maintaining a good relationship with the project team. The political skills helped manage pressure and dull project environment. The political skills demonstrated how the project manager attended to the context of the agile environment, thus able to monitor group dynamics, identify potential conflict and stimulate constructive interactions (Bäcklander, 2019).

#### 4.2.3.2.3 – PROJECT RESOURCE MANAGEMENT

One constraint in project management in the context was human resource management. Human resource management was one of the critical ingredients of project management capabilities. The impairment in this function created pressures and a challenging environment for the project manager (Takey and Carvalho, 2015). Because the team comprised senior professionals and bank executives, the usual, top-down approach in the project management did not work. Similarly, the bank and bank IT were familiar with the master-slave management approach where the bank was the king and could command from vendors. (Note that most vendors were top consulting companies with resources to entertain the bank in exchanges for long term relationships and businesses.)

In my case, the Company had limited resources to entertain the bank's demands. Recruiting good people to work in the Company was extremely tough because young people wanted to work for well-known IT consulting firms. So, we had to adjust our recruiting strategy to hire experienced people disrupted in the current technology disruptions. Those senior consultants did not follow the master-slave approach that the bank used. Conflict and pressure had built up during cycle one of the projects due to the management style adjustment among related parties.

The project manager's responsibilities were to manage the project's dynamic, especially in project controlling and political management. The project manager became a buffer between the bank and the Company. The buffer job added complexity to project management. The buffering role provided both costs and benefits to the project manager. Even though the project

manager needed to manage increased pressure for the role, the project manager could arbitrage the information asymmetry to gain power relation in the Company.

The lack of resources also created difficulty for the company to select the right people for the agile transformation effort, which contrasts with advice in most academic literature (Bunyakiati and Surachaikulwattana, 2016; Cross et al., 2021). Those literature assume plenty of resources available for companies to select. So selecting the right people for the agile transformation is one of the critical success factors. However, in the thesis, the company utilised agile working to ask the client for help in the resource issues, which would be further discussed in cycle 2.

#### 4.2.4 – MOVING TO THE SECOND CYCLE

The complexity in the hybrid project management and the integrated account management approach, together with the small size nature of our company, prevented us from servicing the customer according to our intentions due to effort conflicts between account management and sales activities. We, including the bank sides, had underestimated problems initiated from the hybrid approach. Only when we had reflected on the situation, we realised the mismatch between the intended approaches and the actual impacts from the trying of the approach. The trial-and-error hybrid approach led all parties to reconsider the situation and resolutions to the problem, which led to changes in project environments and emotions. The next cycle will discuss the resolution mode of sales and implementation cycles.

### 4.3 – CYCLE 2: SEPARATION OF ACCOUNT MANAGEMENT

#### 4.3.1 – OVERVIEW OF CYCLE 2

Cycle 2 represented a separation of the original plan of integrating sales and implementation cycles as the account management mechanism. Because of the complexity of the requirement, the project faced significant delay due to the dynamic of agile implementation. Agile work naturally created emerging requirements that were highly difficult to control. Because the implementation contract was designed in a traditional fixed-fee structure, the project delay caused considerable trouble. The project manager needed to use her strong leadership skills to rescue the situation.

Five months after the project started, requirements from users had tremendously increased. The requirements derived from cyclical discussion among implementation teams forced the project team to adjust the execution strategy, approach and timeline. The increased requirement put

pressures on project resources. The team had difficulties in fulfilling the requested resources. The increased demand impacted the project schedule, resulting in project costs control focus. Topics in project weekly reflections were to balance between benefits and costs of the project.

The bank project team had helped unload some of the project costs by supplying additional IT resources, like programmers, to help with the project. Once the bank shared project responsibilities, the bank started to understand the difficulty in managing agile working and gradually took ownership of the project. However, the project-ownership attitude was not accepted across all levels in the bank organisation. At the management level, the ownership was well accepted. However, at the working level, the ownership attitude had not yet fully developed. The project team had to manage the perception of the team members.

Fortunately, because of the sales coverage during the first phase, the customer management team understood the impact of the agile project nature. Sales, the project team and the customer project team worked together to solve the situation. Payment milestones were adjusted to reflect the agile nature of the implementation. Additional five extension contracts were awarded for elevating the cash flow problem.

The impact on the sales cycle was also severe. The opportunity for up-sales and cross-sales were limited. The bank pointed out that the Company needed to fulfil implementation commitments before getting new jobs. This caused the sales team to explore opportunities elsewhere. The most promising sales approach was to leverage the customer's reputations and replicate the implementing solution with other clients that shared similar factoring business as the bank.

Because of different maturities in factoring business practices among banks in Thailand, we could identify a market gap for the available clients. A reflective discussion during a weekly meeting allowed us to shift the focus from a factoring solution to a reverse factoring solution, to bridge the gap. So, we proposed a prospect with a supply chain-related solution instead of a simple factoring solution.

The difference between factoring and reverse factoring lies in the risk management approach. Factoring exposes significant risks from credit risks, counterparty risks, operation risks and settlement risks. In contrast, reverse factoring reduces the risks to a minimum. However, the lower risk in reverse factoring provides a significantly lower return than a regular factoring business. The higher risks in the factoring market were the source of a barrier to entry into the

factoring market. Only banks with superior risk management capabilities can successfully participate in a regular factoring market.

The competitions in the reverse factoring market usually overlap with the financial supply chain and trade finance markets. Thus, the sales expansion drew both competitors and alliances to the deals. Because the reverse factoring was a supplier side business, we could partner with a buyer side vendor and propose an end-to-end supply-chain finance solution to the Thai banking market by combining buyer and supplier businesses. In Thailand, we were the only Thai solution in the localised market.

Below is the data from the sales LINE chat demonstrating our confidence.

- “I discussed with the client ownership. We had a competitive position in functionality completeness. Currently, the scores were at the procurement team for final evaluation. The user confirmed that the bidding result would go as plan. So we waited for the result.”

However, we faced competitors from India, which had both sides of the market solution. In the bidding process, we needed to compete with Indian firms. Even though we had advantages in the localised solution, the Indian firm used a low-price strategy to beat us. Even though the Indian solution did not have localisation, the Indian firm promised the client to localise their software during the implementation. In most cases, from my experience at the existing customer, Indian firms had not been allowed to bid in implementation projects because the bank had encountered troubled projects. However, the customer used Indian firms for low-cost outsourcing, like testing.

As a result of my experience, I suffered from a solution bias as I perceived that new customers would have had a similar decision-making style as in the bank. So, I demanded a higher fee than the Indian competitors. The high-fee proposal resulted in lost business.

#### 4.3.2 – REFLECTION FROM IMPLEMENTATION OF THE SECOND CYCLE

The agile implementation opened a door for both business users and IT users to reprioritise and add new requirements to the vendor team. Additionally, the users used the requirement reprioritisation opportunity to correct mistakes in requirements and change their requirement decisions in earlier reprioritisation periods. Our project manager had opposed the design changes, but the users classified the changes as bugs in the system. If we did not change, the

solutions would create defects because users would not accept the test result. If the users did not sign off the test result, we could not collect payment tied to the testing workstream. Thus, we faced another cash-flow problem. I believed the bank users had abused the agile approach in favour of the implementation project.

Revisions to the previous decisions created a series of programming codes because the complex programming linked several dependent variables. Even though the change seemed small in the users' perception, the change in one requirement impacted several functionalities. The changes required retesting of the tested functionalities. The changes in the requirements created non-linear workloads for the vendor team to rework the solutions. The exponentially increased workloads added stresses to the teams, not only the vendor team. The business users and the IT users also felt the project delay from the reworks of the solutions. Also, the reworks of the solutions delayed the reprioritisation of the new requirements because priority was given to the reworks of the solutions. Reworks and reprioritisation impacted team morale. Because my team was used to the project implementation stability, the uncertainty in the requirement changes caused frustrations to our team members, especially our developers. Developers started to complain about the frustrations as well as their options to resign. The management team had discussed the concerns and ensured the developers our efforts to resolve the project situation.

Because of the agile approach, the bank business and IT users required all team members to co-locate with the bank team. To colocation worked well with the business analyst team but not with the developer team. Colocation helped our business analysts continuously negotiate with the bank business users, defending the nonessential requirement changes. However, we refused to co-locate our developer team because of the morale issue. Even though the relocation of the business analyst team helped to control the unnecessary requirement requests, our project manager and the business analysts spent significant time in the meetings. This caused workload accumulation, especially in the functional design area. The increased workload caused our project team to work overtime. The more overtime the team worked, the more burned out the team felt. During the burnout period, it was difficult for the sales team to support the project team. Some activities in the co-reflection between the project team and the sales team were reduced to accommodate the morale issue.

Also, the delay caused the project milestone payment problem. Expected cash inflows were delayed due to the reworks and the increased project scopes. The cash flow situation was so



severe that the management needed to seek short-term and long-term cash management alternatives. For the short-term option, debt instruments were used. We decided to adjust our ecosystem strategy for the longer term by searching for another ecosystem that could diversify the cash flow shortage risk.

Ideally, it is not recommended to implement an agile project in a fixed-fee project environment. Andrzejewski (2010) recommends avoiding the situation to prevent the foreseeable problem. However, the recommendation ignores the reality that the client holds negotiation power to benefit from the situation during the project engagement. In addition, the recommendation does not take the impact of a lousy project and the reputation of the client who approves the project. Not only the vendor feels the pain, but also the client's decision-makers face career challenges. The assumptions look reasonable but not practical. The finding suggests that we can use power relation to our advantage when a face issue gets into place.

The delay in milestone collections led to our decision to reframe the account management approach. We decided to pursue two streams of activities. The first was to renegotiate the implementation approach. The renegotiation was to align the fixed-fee contract with the project uncertainty from the agile approach. Due to the traditional fixed-fee procurement practices from the Bank, the project management team used reflective practices to change the bank procurement belief to match the variable nature of the agile implementation. The project manager created several additional fixed-fee scopes for the emerging requirements from the agile implementation. So, fixed-fee procurement became a pseudo-variable procurement. The second was to diversify the sales portfolio out of the existing ecosystem. The diversification helped the Company to manage project and cash flow risks. The following sections discuss my reflections on the project renegotiation and ecosystem expansion.

#### 4.3.2.1 – PROJECT DISPUTE

Regular meetings among teams provided early detection of project problems, such as the mismatch between the project's scope flexibility and the fixed-fee procurement practice. Early detection of the project problem allowed us to gradually communicate with the bank key people regarding the project issues. The project manager also regularly communicated to the bank project managers. The sales team regularly discussed the potential problem with client executives. The communication at all levels helped us gradually asked for commitments to adjust some project conditions and project budgets.

We used at least three techniques in negotiating for the scope-schedule-budget increase: the door-in-the-face (DITF) (Feeley et al., 2017; Feeley et al., 2012), the foot-in-the-door (FITD) (Grassini et al., 2013; GuÉGuen et al., 2013) and Solution Bias (Gimpel, 2008). Our regular reflective meetings between the project and sales teams helped derive the three strategies to request a more flexible procurement approach to the agile dynamic. We started the door-in-the-face (DITF) approach by asking for a contract amendment to accept no documentation as the acceptance but focusing on designs and programs delivered for the payment criteria. The clients rejected the requests. We continued to mention that the team could not survive with the existing contract. So, we need to be less flexible in accommodating the changes. Later the client offered to be more relaxed in the documentation we submitted for the payment milestones.

Once the client agreed to relax the document acceptance, we gradually asked for a contract amendment to split the payment milestones from key project completions to monthly deliveries of the project document. The client helped with the request. So, we could amend the original contract in the payment milestones section. Not only we asked for the payment adjustments because we lost some resources from the project pressure and uncertainty, but we also asked the client to subsidise additional business analysts and programmers to the project teams. Therefore, we have more resources with low project costs to deliver the work.

To be successful in the resource requests, I stood firm during the resignation of our resources, not to add our resources to the project. We claimed cost overrun for not providing the resigned members. The technique required close communication with the project manager. Because insufficient resources would add additional workload and stress to the project team, the project manager managed the turbulence in the project. When the pressure built up the momentum, the project managers from all parties set up an escalation session to agree on the resource issues. Eventually, the bank's IT management team agreed to add IT resources to the project.

Later in November 2018, we set up a series of one-on-one meetings with key bank executives to discuss the project problems and sense-make of the executives' ownership feeling of the implementing solution. Once we reconfirmed the ownership supports, we proposed project extensions to cover the increasing requests. Because of the ownership feeling, it was not so difficult for the client management to approve extensions. At this point, we structured the extension as a series of change requests. We structured five change requests to spread out the payments to be made monthly and accommodated the agile requirement flexibility. The value of the five contracts was as large as the master contract. In this way, we gradually changed the

traditional fixed-fee procurement contract to a pseudo-agile procurement contract (Jamieson et al., 2005). After receiving the additional change requests and resources, the team morale improved. The project resumed a healthy condition for the extended lived date in November 2019.

#### 4.3.2.2 – SEARCHING FOR A NEW ECOSYSTEM

For the sales-related activities, we identified two efforts to create new ecosystem businesses. The first one was to replicate the implementing solution to other banking networks. The second was to enter a tighter business relationship with a more established ecosystem.

##### 4.3.2.2.1 – REPLICATING THE IMPLEMENTING SOLUTION

In searching for new banking customers, I replicated the solutions we were using to other potential prospects. We identified one potential bank, which was half the size of the first bank. The prospect had a supply chain finance solution but on a smaller scale. The solution the second bank needed was less complicated in term of functionalities but broader in term of coverages. This was because the second bank wanted to replace the end-to-end supply chain finance system, while the first bank replaced only the supplier side of the system. Despite our localised solution strengths, the end-to-end supply-chain-finance solution requirement from the second bank put our company in a disadvantaged position.

Another Thai vendor had the missing piece of the supply chain finance solution, and we fought with several Indian firms who claimed to have the end-to-end solution. Because of the bidding process, the other Thai vendor and our company could not closely participate in the bidding because the partnership was perceived as a cartelized bidding. Consequently, both Thai companies lost to an Indian competitor who could propose a lower end-to-end solution price. We discussed with the client and found out that the procurement formula weighted heavily in the pricing factors. So, we lost the competition.

We suffered from our solution bias in our localised solution. We believed that the solution fit was more important than the pricing, leading to future project delay during the implementation. I also understood that the standardised solution evaluation formulation prevented the client's flexibility in reflective practices. Even though the client preferred our localised solution, they did not want to violate the compliance, jeopardising their career later during the client's annual auditing process.

#### 4.3.2.2.2 – TIGHTLY COUPLED ECOSYSTEM BUSINESS

In responding to the loss following the bidding, we reached out to all connections that might benefit our expansion strategy. We identified a large conglomerate that was disrupted and wanted to invest in a small start-up. In September 2018, we first contacted the 92-year old Thai conglomerate company and discussed a partnership opportunity with our company. The conglomerate's businesses cover fertiliser businesses and IT system implementation businesses. The conglomerate company had just signed a distributorship contract with the most significant global financial services software company. Unfortunately, the conglomerate lacked financial industry business knowledge and core banking business skill. The conglomerate faced difficulty in servicing Thai banks. After several discussion sessions with the conglomerate company, we proposed integrating our banking solutions into the conglomerate's assets. Our proposition was so attractive that the conglomerate's board of directors approved an investment in our company. The investment relationship allowed us to leverage the conglomerate's business network and expand our business opportunities in Thailand.

During the deal negotiation, I involved all key team members from our company in getting their comments regarding the deal. We had several reflective meetings to discuss the deal over three months. During the reflective discussions, we considered most aspects of the deal. The reflective discussion helped me realise my solution bias toward the deal; because I was one of the members to support the deal, I had missed out on several aspects, especially the cultural differences between the 92-year-old company and our new start-up firm.

In addition to the cultural conflict between the two firms, we also questioned the conglomerate's politics. We got the sense that there were power conflicts between the fertiliser group and the IT group. While the conglomerate's CEO, who supported us, controlled the fertiliser business, the executives who managed the IT businesses were not getting along well. So, if we were to establish an investment relationship with the conglomerate, we must play along with the power relation in the big company. We wanted to take advantage of both worlds, being a start-up and being a conglomerate member. We crafted the deal such that we had total control of the Company direction while we requested the conglomerate to support us financially, the networking and market potential.

### 4.3.3 – MOVING TO THE THIRD CYCLE


Eventually, the investment deal was closed in December 2018. With the new strategy, the Company started pursuing the Thai agricultural technology segment to support the fertiliser businesses. I continued taking the MD role. The management style was the same as before the new investment deal. What changed was our access to capital and business networks provided by the conglomerate company. We maintained the resource budget as equal to those before the investment. With the same workforce budget, we hoped to leverage the conglomerate's strengths to grow our business.

In the third cycle, the efforts focused on two areas. The first area was continuous implementation at the bank. The objective of the third implementation cycle was still to obtain repeated businesses and become the vendor of choice for the bank. However, the third sales cycle would focus on creating an ecosystem business by leveraging the connections of the conglomerate company.

## 4.4 – CYCLE 3: EXPANDING THE NETWORKS OF ECOSYSTEMS

### 4.4.1 – OVERVIEW OF CYCLE 3

The third cycle started in late 2018 after the Company decides to expand its ecosystem. The management realised that expanding the network alone could not gain the ecosystem quickly. Thus, a more in-depth partnership approach was explored. The Company successfully negotiated with a large IT company in Thailand to invest in the Company. While the IT company focused on hardware businesses, our Company was positioned as a software arm for the IT company. After the investment approval, the Company still held management power while the IT company acted as an investor. The IT company provided helps the Company as a needed basis. Below is the example captured from LINE chat with the investor CEO.

- [Investor]: “We increase the company registered capital to 15 MTHB and call 5 MTHB as the paid-up capital.”
- I responded: “.”
- [The investor]: “I will ask [my CFO] to amend the company registration documents. The share structure is 60:40 as agreed. The [CFO] will contact you for required documents.”

The Company expanded its business into a more complex network of five partners. The first partnership focused on SAP upgrade. The Company utilised its connections to sales SAP upgrade while the partner implemented SAP at the customer site. The second focused on leasing cloud services: the Company and the second partner co-invested leasing product build. The second partner acted as the sales agent for the relationship while the Company developed the leasing solution. The third partner focused on the innovation ecosystem. In the innovation field, the Company partnered with a leading Thai university to deliver innovation enablement consulting to private companies in Thailand.

Below is an example of a customer coaching during the innovation engagement from a reflective journal:

- “[An executive] suggests fitting the innovation synthesis to [a bank] bigger picture of the identity of [the bank]. How can I address the identity topic? Which word should I use to represent the initiative? I should create one slide to mention how innovation synthesis fits in the bigger picture. So position the proposed solution as an innovation track.

Use S-Curve as the critical word. This is to distinguish between new ideas and S-Curve Ideas. The slide will discuss the difference between new ideas and S-Curve Idea. We can use innovation and radical innovation as the key message in the discussion.”

The fourth partnership was also related to early-stage innovation, where a gamification approach was the tool to the early-stage innovation challenge. The Company partnered with a gamification professor from a design university in Portugal. The professor provided gamification know-how while the Company marketed the gamification in Thailand. The fifth partnership was to become a sale agent for traditional Thai IT companies that lacked sales capabilities. The approach was similar to a distributorship agent in the pharmaceutical market.

#### 4.4.2 – REFLECTION FROM IMPLEMENTATION OF THE THIRD CYCLE

The third cycle created an interesting phenomenon that could be understood through a complex responsive process perspective. The phenomenon reflected emerging adjustments to the Company strategy. Through sense-making and sense-giving processes, people in my company made senses of the actions I communicated and reacted accordingly. For example, once I put pressure on the project cash flow to the project manager, the project scope became under control, and deliverable milestones were in line with the required cashflows. The project

manager negotiation capability improved comparing to the compromised style at the beginning of the project. With the efforts to improve the company's revenue flow, our management decided to expand the Company ecosystems. As the ecosystem expanded, more varieties of solutions came into the Company portfolio. Power relation and balance had shifted due to the emerging of new partners. Some executives sensed the power shift from their controls of the products development to other parties. Consequently, the impacted executives became more collaborative, in contrast with their initial starting positions during the Company start-up period.

The actions taken in cycle 3 included the following:

- 1) switching marketing effort away from the existing products,
- 2) raising funds to compensate for the cash flow problem from the project implementation,
- 3) recruiting new partners to the Company ecosystem and
- 4) rebalancing the partnership power in the new ecosystem.

#### 4.4.2.1 – EMERGING OF THE NEW ECOSYSTEM

The ecosystem expansion started with the partnership development life cycle (Andris et al., 2018). The contractual stage was to recruit potential partners into the company's ecosystem. We leveraged our customer-facing strengths in our banking industry knowledge, core banking technology, customer management capabilities, and strong customer networks to redefine the ecosystem business model. Our customer-management capabilities guided our partner qualification and evaluation approach. We identified small companies with strong technical capabilities but lacked marketing expertise and lacked core banking system components. The approach had adjusted our orchestra ecosystem strategy (mentioned in Chapter 3 – Literature review) from being a member of a larger keystone ecosystem to becoming the core player ourselves. In the new ecosystem, we transformed our company from a product company to a holding company that provided market access and core banking technology to the member firms.

How to recruit and develop partner relationships depends on their willingness to co-create and their market-access capability (Andris et al., 2018). The new ecosystem focused on solution co-creation rather than ownership of a solution. We managed the partner relationship along the resource allocation continuum to extend value creation potential (Acquier et al., 2019). We formed two groups of partnership models. The first one was developed around the financial supply-chain platform. In the model, because each company was unwilling to share the

ownership of technologies, we create a centralised mechanism to coordinate the product development efforts. However, we also created another partnership model where we co-created a resource pool among the partners. The members in the second ecosystem co-owned the technologies. Both new ecosystems allowed us to expand businesses more rapidly with lower development costs.

#### 4.4.2.2 – POWER RELATION EVOLUTION

Initially, the Company was established by a group of professionals who had unique capabilities. Two executives possessed application development skills; each was an expert in different programming languages. One executive had strong hardware engineering skill, while the other two executives had project management and IT operation skills. My strengths were in consulting sales. We planned to utilise agile working as the technique to manage the melting pot. However, I observed that each executive had held on to their tacit skills and was reluctant to try new things. There was change inertia during the first two action cycles. The team members tended to return to their comfortable ways of working or their familiar organisation routines (Giudice et al., 2013). The configuration worked effectively during the start-up period of the Company because each member was assigned to one's comfortable roles in the implementation project. The internal power-relation ecosystem was established in a stable environment.

However, once we were expanding the Company ecosystem away from the familiar environment, an external environment also played an important role in the dynamics of the power balance. The situation put the Company in high complexity and high uncertainty, which was the source of anxiety in the working environment (Andris et al., 2018). The uncertain environment forced the management to rethink the strategy and created a network of strategic partners. What happened was emerging of new partners (captured from LINE chat between one executive and me).

- [executive] “Currently, 15 distributors confirmed.”  
"I will submit the prototype for review tomorrow."  
[executive] “What else do we have.”  
"ERP, HIS and Leasing"  
"So, [executive] will share these with my connections."

The emerging partnership network initiated a new power-relation balance. Those who used to control core application development powers got less attention from the company, while the



new partners received recognition and focus. The new power structure changed the behaviours of the members. The two developer executives opened to try new technologies. The hardware expert shifted his focus to acquiring new skills that could complement the new partner network. The operation expert started to help with sales activities. By giving the strategic shift signal, I effectively altered the team behaviours according to the new strategy.

#### 4.5 – SUMMARY OF CHAPTER 4

From a practitioner point of view, chapter 4 described what had happened in the Company during the research period. The three cycles demonstrated the evolution and adjustment to the Company direction. The actions were to respond to how the Company managed the unexpected reality. The unexpected deviation from the company's original plan focused on participating and nurturing the existing company ecosystem. Chapter 4 provided insights into why the management reacted. At the point the thesis written, the two-year implementation project was accomplished. The result of the agile working proved the Company values to the client, thus helping the Company to get additional ongoing support contracts.

However, to understand the situation, chapter 5 helps us explore the situation from academic perspectives. Combining with chapter 4, chapter 5 helps to better understand the agile working implementation from a doctoral-practitioner position. Later in chapter 6, learning is derived from the thesis in term of first, second and third-person leanings.

## CHAPTER 5 – EVALUATION OF FINDING

### 5.1 – INTRODUCTION TO CHAPTER 5

As we understood the results of agile working implementation from a practitioner's perspective, chapter 5 helps us evaluate the finding from an academic perspective. We understood the business results of the agile working in the ecosystem expansion and organisation culture development results. Chapter 5 provides more profound reflections on how and why the business results happened. Chapter 5 leads to five lessons from the agile working implementation. Both chapter 4 and 5 leads to a meta-synthesis in chapter 6, explaining the three research objectives in chapter 1: reflective practice, culture integration and ecosystem evolution.

As addressed in chapter 2, data was collected over 20 months. Several sources of data were identified and planned for data collection. To minimise impacts on day-to-day operations, participant observation was selected as the prime data collection techniques. There were two sources of observations. The first was a field note from physical participation. The second was a social network chat, which aimed for a virtual observation. The observation data, reflective journals, interview LINE chat and documentation were input into NVIVO for data analysis. The chapter discusses the finding from the collected data.

The agile working implementation at the Company created decided results set at the agile working introduction. Agile working helped to improve the sales pipelines and to ease out implementation difficulties, as follows.

- In term of sales lead increase, the opportunities increased from 6 in cycle 1 to more than 45 in Cycle 3. The sales team could also recruit customers to be sales coaches inside the customers' organisations.
- For the implementation project, agile working also helped the company negotiate with the client for project scope expansion. After the project scope expansion, the total contract value was twice as large as the original contract value.
- Agile working helped the Company to negotiate for flexible resource utilisation contracts with the client. The client paid the Company to recruit and train development resources during the project implementation. After the implementation, the resources would be transferred to the client organisation for day-to-day operations and maintenance. The approach helped the client to recruit resources in advance without

an impact on their headcount budget. Also, the Company could have additional project resources without incurred costs to the project.

- Lastly, the interaction aspect of agile working significantly increased reflective practices in the organisation.

Despite the benefits, implementing agile working created consequences for the company. Agile working caused a power relation shift. The shift in power relation altered the interactions among the Company employees.

- The disruption of power relation reduced the willingness to share attitude in the organisation
- The disruption of power relation reduced the commitments among the employees.

Chapter 5 will explain the findings in more detail. The chapter starts with Part 1, the emerging themes observed during the action research execution. Discretely, Part 1 addresses nine emerging themes which are grouped into three categories. The first category is the theme observed before the agile working actions. The second include themes observed during the actions. Lastly, the third includes themes observed as the results of the agile actions. In Part 2, the Chapter tries to make sense of the finding. The nine themes are discussed from the dynamics view of action research cycles. Each theme will be investigated in a timeline sequence basis, from before, during and after the actions. The discussion starts from cycle one for each theme, then moves on to cycle two and ends up in cycle three. Part 3, the chapter concludes with learning from the making sense of the agile working implementation in the organisation.

## 5.2 – PART ONE: EMERGING THEMES

Part One discusses nine emerging themes from the agile working introduction to the organisation. The nine themes are organised into three clusters. The clusters are organised according to the timeline of the introduction of agile working. The first cluster includes a theme observed before agile actions. The first cluster serves as a starting point in the constructing and planning stages of the action research cycle. The second cluster includes themes observed during the planning, taking and evaluating action stages in the action research cycle. The third cluster includes themes observed as the results of the agile action.

Part One starts with the finding from the observation. Collected files were digested and coded. The codes were combined and transformed into nine manageable themes. The chapter

discusses the nine themes by starting with the context of the organisation dynamics, then mentions the nine themes and addresses the conceptual diagram relating the themes.

### 5.2.1 – ORGANISATION DYNAMICS

The organisation was established by creating a loose collaboration of retired senior executives, younger team members and myself. The objectives of the partnership were two-fold. Senior executives transferred their knowledge and experiences to younger generations. At the same time, the younger members could run the Company with pre-existing intellectual properties. By arranging the co-creation visions, both senior and junior executives could achieve win-win solutions. While senior executives prepared their passive retirement incomes, the young executives started a business from a solid background with nurture from the experienced executives. In addition to the two objectives, I used the Company start-up for my action research thesis.

The Company establishment strategy was to leverage competencies from key shareholders. One executive had strong application development experiences. He was head of development for several leading banks both in Thailand and Europe. He also established a software house developing several banking-related solutions. The development executive brought in applications to the Company. Besides, he also transferred his developers into the new Company.

A strategy that the development executive used to manage the software team was a divide-and-conquer approach. By splitting programming codes into small independent code blocs, the executive could efficiently distribute coding tasks to his developers. Also, the separate coding blocs allowed the executive to reduce development skill requirements from the developers, thus lowering development costs. Additionally, the executive could hold on to the critical code knowledge and intellectual properties, which reflected his relative power relation in the Company.

With the power status, the development executive had difficulty working with junior client project teams. Despite lacking in-depth bank industry knowledge, junior clients leveraged the client status to challenge the development executive status quo. However, the development executive refused to interact with the junior clients. Consequently, the project management executive had to act as the customer-facing middleman.

By shielding away the interactions, the development executive could continue working in his comfort zone. After getting the solution requirement, the project management executive prioritised and assigned development tasks to the development team. The non-customer-interacting situation reduced the power relations of the development executive in the Company.

The organisation dynamics and power relations had shifted throughout three cycles due to implementation difficulties and the client relationship. The following sections discuss nine themes that emerged from the agile working implementation at the Company. Nine themes reflected the impacts of agile working on the Company and the research questions.

### 5.2.2 – THE EMERGING THEMES

Nine themes emerged from observations of the implementation of agile working in my organisation (Figure 21).

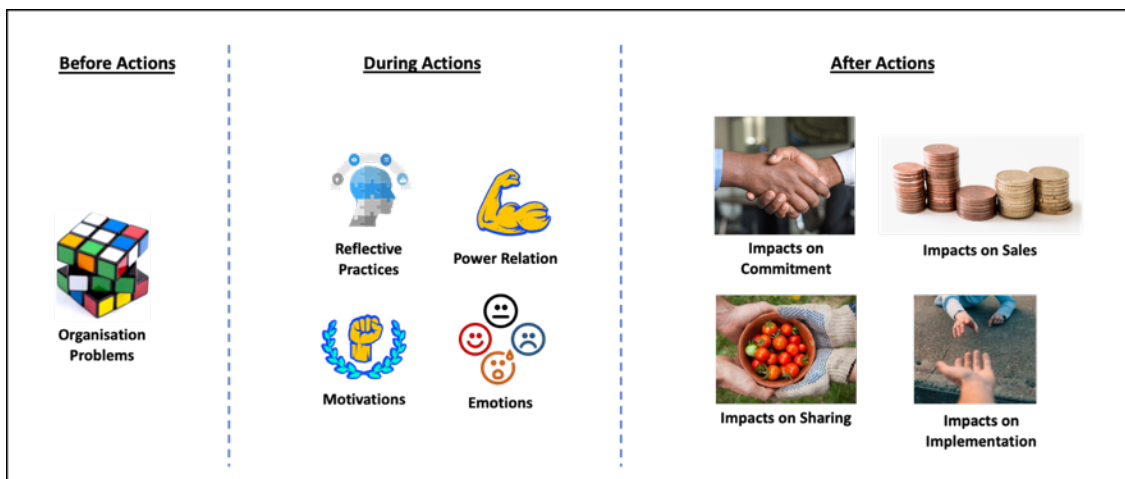


Figure 21: Emerging Themes from Agile Working

Themes can be grouped into three categories according to the action cycle steps: before, during and after actions. The first group was related to the organisational problematising that the teams identified problems and agile actions. The second group consisted of four emerging themes observed during agile working to solve the organisation problems. Those themes included power relation in the organisation, the use of reflective practices, motivations and emotions. The last group was the results of the problem-solving agile working attempts. In the third group, agile working created both positive and negative consequences. On the positive side, agile working helped the sales and implementation teams achieved the organisation problem-solving efforts. However, organisation dynamic resulting from action-interaction from the agile working created adverse impacts on the organisation. Two effects

were observed. The first one was the degree of commitment key executives had toward the organisation. The second was the sharing attitude among the executives. The rest of the section in Part One will focus on the nine emerging themes.

### 5.2.3 – THEME OBSERVED BEFORE THE AGILE WORKING

#### 5.2.3.1 – PROBLEMS IN THE ORGANISATION

| Theme                        | Sub-Theme         |
|------------------------------|-------------------|
| Problems in the Organisation | Cash Flow         |
|                              | Costs             |
|                              | Resource Quality  |
|                              | Resource Shortage |

The four observed problems were groupings of similar problems captured during the coding activities. Because the Company was a small organisation, the organisation problems impacted both sales and implementation teams. Both teams used agile working to solve organisation problems. For example, because the company’s primary source of revenue was from the implementation projects, any delay in implementation would create a cash flow problem. Thus, both sales and implementation teams needed to find ways to handle the problem. For example, the implementation used agile working to refocus tasks linked to client acceptance. Client acceptance helped the Company to invoice on time. Similarly, when the cash shortage problem was forecasted, the sales team acted in an account management role to identify actions that helped negotiate with the client to speed up deliverable acceptances and process early invoice payments.

The problems were also interrelated. For example, the cash flow problem led the management to rethink the cost structure. The controlling of the cost structure also was one of the critical issues for agile working focus. Cost controls required collaboration between the sales and implementation teams. Cost control limits the implementation team to allow flexibility in responding to the client’s high demand in accelerating the project. The tight control of the costs led to both quality and availability of the Company resources. The implementation team needed to focus on negotiating and seeking clients' help in the resource issues to tackle the problems. This agile working led to better collaboration between the client and the implementation teams in understanding priority and solving the project resource problem. As

discussed in the impacts on the implementation section, the client helped the project by subsidising resource recruitment to the company. Consequently, the Company could hire qualified resources without additional costs to the firm.

The resource quality problem also the focus of agile sales activities. Sales needed to share critical resources to help the implementation of project tasks. The agile working helped the sales team to adjust the strategy to explore a partnership, thus expanding the Company ecosystem. The discussion regarding the ecosystem expansion will be further discussed in Part two of the Chapter.

#### 5.2.4 – THEMES OBSERVED DURING THE AGILE WORKING

##### 5.2.4.1 – POWER RELATION

During the observation across the three cycles, power relation had shifted from those who controlled development and project execution functions to those who manage money and sales. The shift was observed during the transition in cycle 2 to cycle 3. Results indicated an interesting shift in trends, which will be discussed in later sections.

In the first cycle, the power lay with the development director. Because of the basis of the company establishment, which assumed transferring of and continuing marketing of the existing business applications, the development director, who controlled the applications, held a veto power on what we planned to do with the requests. For example, the director demanded which customers to meet and which not to meet. For the blacklisted customers, the implementation and sales teams had to manage customer expectations. For instance, during the project implementation, a client project delivery manager challenged the development director. The development director perceived the challenges as disrespectful. Since then, the director would not attend the meetings if the delivery manager presented. (captured in a project LINE chat)

- “if [the delivery manager] attends the meeting, I will not participate”.

The situations had happened from the beginning until the project went live. At the beginning of the project implementation, client management called the development director and discussed a situation. Client management forced the development director as the vendor that the development manager must attend all required meetings. The development director countered that the director would participate only if the client management replaced its delivery

manager. Eventually, the client executives and I agreed that the IT architect and project directors would bridge the development and communication gaps.

The power relation in the organisation was shifted in the second cycle. The power was with the project director. In the second cycle, project health was not in good shape. Pressures had built up from the communication and scope gaps. As the project also provided the company's primary source of cash flow, the project director played a critical role in the project and company survival. The project director could demand attention from everyone in the company. The project director also helped in negotiating with the client for scope extension and early sign-off processes. (captured in a project LINE chat)

- “Because I will not hire a data migration consultant, so the sales team do not involve [the technical lead] in any sales activity.”
- “Do you want the technical lead to work full-time in the project?”
- “yes”

The situation represented a veto power from the project director, demanding the most skilful resource to work full-time. The request impacted other functions in the company, especially sales and business development because the resource was the one who can do deep technology discussion and demonstration with a client.

In cycle three, the power shifted to those who control the investment. In one difficult cash flow situation, the CFO asked all key resources to delay salary payments for three months. The cash shortage forced the sales team to explore a partnership with potential investors. So, in cycle three, activities related to sales and partnership building got the priority.

#### 5.2.4.2 – THE USE OF REFLECTIVE PRACTICES

| <b>Theme</b>                     | <b>Sub-Theme</b>                         |
|----------------------------------|--|
| The Uses of Reflective Practices | Questioning to Stimulate Double-Learning |
|                                  | Reflection-Before-Action                 |
|                                  | Reflection-In-Action                     |
|                                  | Reflection-On-Action                     |

There were four observed themes related to the uses of reflective practices during the agile working execution. The first was the use of questions to stimulated reflective discussions



among the teams. The second use of the reflective practices was on reflection to prepare for client meetings, sales, and project meetings. The third was to capture acts of reframing situation to enhance interactions and reflections among the team members. Lastly, the last reflection was related to reflecting on learning from earlier period actions. The reflection-on-action also served as a starting point for the next period of planned actions.

### ***Questioning to Stimulate Reflective Thinking***

For the uses of questions to stimulate reflective practices, several types of questions were used. Primarily, those questions could be categorised into constructive and destructive questions. Two kinds of questions-initiated reflections with different responses and emotions.

For examples (captured in a field note):

- The first example is “How could we solve the problem?” which indicated a provocative question asking for team participation. After the question was asked, the project team brainstormed for the hypothesis of the root causes. Then the team came up with actions to test the hypothesis. In the next meeting, the team evaluated and discussed further adjustments to the actions. This question generated a constructive discussion on action planning.
- The second example: “[The project director] played a devil advocate role in challenging [the development director’s] story. She asked [the development director] how could he be sure of the deal.” The question challenged the [development director’s] assumptions during a sales discussion. The question, however, challenged [the developer director’s] status quo. I observed the conversation in a hostile environment. The question created negative emotion during the discussion. However, when the team continued the conversation, the hostile atmosphere subsided. The hostile situation improved.

Both questions stimulated discussions among the members. However, the first question initiated a constructive sense of team discussion. Team members helped each other to think and find actions to a particular problem. The questioning also opened up a discussion stage for all members to participate. This kind of positively oriented questions helped group reflection efforts. The constructive questions stimulated further discussion and healthy public reflections among the team members. In the constructive reflection, participants opened to accept challenges that touched their status quo.

However, the destructive kind of questions created tension among the team members: those who asked and challenged. The project director would like to ask the development director to conquer the project director's assumptions and point fingers at the one who was in the spotlight. The kind of questions generated a yes-no type of discussion. The question created anger and frustration for the target person. The negative emotions resulting from the destructive discussion initiate defensive reactions in the group discussion. There were limited conclusions agreed upon after the hostile discussion environment. Participants protected their status quo and power relation in the company.

### ***Reflection-Before-Action***

Usually, Reflection-Before-Action happened during a team prepared for a client visit or a project meeting. The observed Reflections-Before-Action was a combination of multi-perspective reflection and multi-voicing reflection (Alvesson et al., 2008). Group discussion also provided a brainstorming venue for the Reflection-Before-Action.

For example, in one meeting, the team discussed sales activities for a potential deal. Several considerations were discussed based on differences in underlying working principles between the traditionally conservative nature of the company's stakeholders and the dynamics of agile working of the company. The reflections pointed out the limitation of agile working under the traditional static nature of the work environment (captured in a reflective journal).

- “What is our relationship with [a business partner]? So, relationship with [the partner] may not be good for the company.” In this situation, the partner referred to one of our shareholders. Even though the partner did not have any role in the company, the Company must be aware of the impacts when we executed any action. The example showed a difference in paradigms between the traditional business mindset and the ecosystem-based mindset.

Another example was about we reflected publicly how one executive would perceive the same issue we were discussing. The reflection from the voices of stakeholders helped us to tailor our actions more appropriately. The multi-voicing consideration was good at preparing sales pitches as well as a project presentation. (captured in a reflective journal)

- “What happens if [an executive] comes to the project meeting tomorrow? Some clients will know him, and some will not. Those who know [the executive] will be surprised. Is the surprise good for the company? They may think that why do we need to involve

him?” The discussion demonstrated multi-perspective reflexivity, reflecting from several stakeholder viewpoints (Alvesson et al., 2008).

### ***Reflection-In-Action***

Schön (2016) argues that practitioners could successfully achieve continuous reflective conversation by reframing problem during a real-time discussion. The uses of reflection-in-action were also observed during the agile working implementation. Reframing of situations was the standard practices in the observed reflection-in-action. Below are examples of the observed reflection-in-action (captured in a field note) during the execution of agile working.

- “I reframed the question to why do you think so and gave me an example of what [the project director] mentioned. So, I found out something different.”
- “[The development director] stepped in and pointed out discussion to the right direction, which was the solution was not either-or but both-and, by accelerating their decision and we would help them build the system without scarifying the requirements.”
- “What I did is to reframe by using map and jigsaw as an analogy to combine both high-level and tangible level. Also using an agile approach to bridge the gap.”

### ***Reflection-On-Action***

The reflection-on-action was similar to the reflection-before-action in that both reflections discussed actions or situation from multi-perspective and multi-voicing points of views. An example below was extracted from a fieldnote after a client meeting. The discussion was trying to understand the sales situation from a client point of view. Also, the discussion investigated an underlying client culture to derive a more appropriate follow-up sales action (captured in a reflective journal).

- “For a prospect innovation opportunity, the problem lies in silos approach in product offering and effort alignment [in the client organization culture]. The silo approach to product offerings means each BU has its agendas. The result is low collaboration is going to the market. Another consequence is IT alignment to the requirement. Because of different paces between how people think and how IT is executed, efforts will never be aligned. IT is to be blamed. So what can we do? Two efforts can be initiated, followed by several supporting initiatives. The two efforts include creating

collaboration between customers, BU and IT. This approach is to involve customers in BU thinking. Once BU focuses on customer needs, the collaboration will be stimulated. The second approach is to align businesses and IT. Agile working can be applied, which means agile in everything. Not only in the development process. Aligned mean action cycle. How to explain the action cycle to [the client]?”

One interesting observation was extracted from my field note. Because of my customer relationship background, I focused too heavily on the multi-voicing reflection, trying to please customers. I need to rebalance my reflection with another angle of reflection; otherwise, the multi-voicing reflection could cloud my decision and judgment for the actions. The reflective practice allowed me to focus and refocus on an issue. In the example below, I reframed the focus toward a financial-focus goal, thus shifting the discussion among the management to be more constructive. The reframing helped the team balance the agile implementation's benefits and costs (captured in a reflective journal).

- “What I need to do is to stop thinking about other people thoughts and expecting upcoming pressure. What I need to think about is where the money is? How do you get them? How long does it take to realize them? Where is the money?”

#### 5.2.4.3 – MOTIVATIONS

| Theme       | Sub-Theme                      |
|-------------|--------------------------------|
| Motivations | Personal Benefit Maximisation  |
|             | Future Business Expectation    |
|             | Enhancing Self Esteem          |
|             | Controlling Communication Flow |
|             | Power Relation                 |

People interact according to their underlying reasoning and motivation, extrinsic and intrinsic (Gee and Hanwell, 2014). According to the finding, the extrinsic motivation included personal benefit maximisation and future business expectation. The rest of the result was in the intrinsic category: maintaining power relation in the Company (relationship building, sympathy, spiritual consultation, social events, being involved, not being involved, relationship maintenance), enhancing self-esteem and controlling communication flow. During the Company setting, both motivation categories (extrinsic and intrinsic) were used as the basis of

the incorporation. All founders were interacting according to the identified motivation factors. For example, for the development director, technical director, and I expected more monetary benefits, both personal and organisation going concerned. For retired executives, they expected power and self-esteem types of motivation. The monetary reward was minimal in their interests. The dynamic of the motivation factors will be discussed later in part two.

Interestingly raw data from social media chats did not provide clear intentions of the motivations. In contrast, reflective journals and field notes pointed out the underlying motivation. During data analysis and coding, I reflected on a reflection of situations in the field notes. A clearer picture of the motivations emerged. The motivation factors influencing actions and interactions among the Company indicated an exciting dynamic in the organisation. Collected data from direct observation through social media chats, field notes, and reflective journals were analysed and coded. Initially, there were a larger number of codes related to behaviours.

### **Extrinsic Motivation**

Personal benefits were one of the most prominent underlying motivation for company formation. Through the observation of participation among senior members, each member was driven by his or her agenda. For example, the development team withheld information on core coding. Rarely, other members had access to the core software components. For executives who took care of project management, they acted as gatekeepers to the development team. The gatekeeper buffered out unnecessary customer-facing activities. Therefore, the project team had held customer-information gateway power. Besides, because the project manager's head had a solid customer relationship, she could open a coffee shop inside the client building. Being able to position the coffee shop as a mobile banking experience lab, the project manager could get away from the client's regular bidding of shop opening rule.

The firm was established initially through investing in future business. By focusing on building prospective businesses, senior members constructively interacted and worked well together. Additionally, junior leaders hoped to expand the Company operations to maximise the future value in the company. The team had a plan to have to company listed in the Thailand stock market for funding opportunities. The future-oriented thinking motivated the junior co-founders to take the risk of sacrificing their careers in corporate work to join the start-up.

## **Intrinsic Motivation**

Some members, especially those retired senior executives from other large organisations, sought power in the organisation and recognition from other members. The power relation dynamics helped to enhance self-esteem.

For the sales and general management team, controlling communication flow was the key motivating factor in controlling the power dynamic in the organisation. Because most executives were retired traditional executives, helping with logistics and communication were appreciated. To favour power relation toward a member, arbitrating information asymmetry created uncertainty among the members. Uncertainty management was also crucial to interactions in the organisation.

Relationship building could be viewed as a form of maintaining power relation in the company. In relationship building, sympathy represented a strategy most members used to frame discussion and negotiation in a productive way (Maaravi et al., 2019). Through sympathy, the team could constructively build a relationship and drive negotiated result from the meeting (Shirako et al., 2015). Relationship-based interactions were observed. Most of the senior members preferred face-to-face meetings to virtual ones. Face-to-face meetings usually turned out to be lobbying over social situations. For example, for deal negotiations, dinner was the preferred mode of interactions. During the meeting, cigarette breaks were regularly observed. Only selected members were invited to join the smoking discussions despite their smoking preferences.

There were softer forms of relationship-power relation maintenance. Relationship and knowledge sharing went hand-in-hand during the observation throughout three cycles (Hui-Ru et al., 2016). Being involved was another form of power relation maintenance that was observed. Being included in important activities motivated junior employees to work for senior team members. In contrast, not being involved could be viewed as a penalty for not complied with the seniors' directions. It was interesting that several of the members had sought spiritual consultation with fortune-tellers. The consultation helped reduced stresses as well as guide interactions among team members.

#### 5.2.4.4 – EMOTIONS

| Theme                             | Sub-Theme                         |
|-----------------------------------|-----------------------------------|
| Emotion Deriving from Interacting | Angry                             |
|                                   | Depressed                         |
|                                   | Embarrassed (including face lost) |
|                                   | Frustrated                        |
|                                   | Hopeful                           |
|                                   | Passionate                        |
|                                   | Uncertain                         |

Reflective practices helped the participants evaluate their and related other actions (Service, 2012). The evaluation allowed us to understand deeper the motivation underlying the actions. However, if not properly managed, the emotion could become destructive. What I observed during the data collection was that older members defended their “face” when the reflective discussion challenged their self-esteem. It took time for the senior to accept the result of the discussion. Anger and embarrassment were the reactions that prompted out during the challenging discussion. To manage the emotion, another director and I planned lobbying ahead of meetings. Small social events mentioned in the motivation section were used before, during, and after a meeting to soften negative emotions. (captured in a LINE chat)

- “I think we should stop paying salaries to the executive shareholders during the cash flow situation. I feel extremely guilty as we are exploiting other non-executive shareholders.” – The situation related to the cash flow problem. One senior executive felt embarrassed that he could not control the cash operations. Thus, he asked to stop salary payment for all executives. He used the action because he lost his reputation. After all, he was the one who arranged the fundraising from other non-executive investors. So, everyone must help to save his face from the non-executive shareholders.

The cash flow management actions, for example, impacted those who thought the action was unfair treatment. One believed that one worked hard to help the company. So fair payment was required. It was also the responsibility of the CFO to explore a debt financing option to manage cash flow. The below example demonstrates both anger and frustration for the uncertainty of the situation. (captured in a field note)

- The project director replied with frustration. In her reply, she wrote: “I can move on to work with other companies.”
- Then She called to discuss. She disagreed and mentioned that shareholder and employee are different. She had committed, so she needed a fair return.

One event happened during the middle of the project implementation. Our key client executives sponsor received a package. The situation created depressed emotion among the team. (captured in a reflective journal)

- “called me a bit later and told me of [the client sponsor] termination and asked me to think about the coffee shop. We call back and forth, but he could not say anything. Then I called [the project director] about [the client sponsor] and potential coffee business problem.”
- “[The project director] was so depressed. She told me that one project team member asked why she does not focus.”

Despite the negative emotions, reflective practices initiated constructive emotions. In cash flow resolution actions, the project director hopefully mentioned that we could resolve the problem soon.


- “I hope that our project will get approval from the procurement soon.” (captured in a LINE chat)


Reflective practice also created momentum for one senior executive to think overnight for a potential opportunity. He called me on Saturday with a strong sense of passion:

- “[The CFO] called and discussed the possibility of portfolio buy out. Today he has realised that the difficulty is in buying invoice and trade secret among those who buy. We need to secure sizable factoring operations; otherwise, we do not have leverage in the arbitration. So, I believe that the key to arbitration is the focus and the indicators, whether it is the right time to market the factoring.” (captured in a reflective journal)




Another way to detect emotions was to observe how people used emojis in chat rooms. Emojis were used most often by team members to communicate less intensified emotions among the team members. Emojis lessened the intensity and seriousness of the feelings expressed.





- During the middle of frustration in the project implementation, one member used the emoji, , to demonstrate one stage of mind. The project director sent back an





emoji  to cheer up the member. The other emoji showed the feeling of mother and child during a frustrating time. The project director acted as if she was the mother of the team members. She could be one that the team members could count on.


- In some situations where team members made some severe mistakes like deployed wrong codes or miscommunicated to the client, some team members used more serious




emojis like ,  or . The two emojis were from less junior team members who had little experience in client-facing. For those with more client

management skill, one used  or  emojis, which were less intense. The two emojis lessened the seriousness of situations.


- The other example indicated a set of emojis that the team used when burning out:

, ,  and . The first two indicated lower motivation, while the other two indicated higher morale from employees.



- Emojis were used to express angry emotions in different variations. The emoji  was used by a higher-ranking person to express an angriness to one subordinate during the project implementation. The emoji shows a high aggressiveness degree of angry. The emoji also softened the feeling a bit. Comparing to the previous emoji, the


following three emojis, , , , were used by junior team members. The big exhales demonstrated less aggressive anger. These emojis could be interpreted as angriness with a bit of giving-up senses.

- The hopeful feeling was also expressed during one of the projects bidding with a bank.



One of the senior management used a hopeful emoji  to cheer up the sales team.


- Also, emojis were used most often for the words “thank you.” Thank you in the Thailand context could be used in two ways. The first was when juniors communicated

thankful messages to more senior persons, like  and . The two emojis convey thank you with respect meaning. The other was when seniors thanked junior people.



The following emoji  showed thank you but without a respectful message. Instead, the emoji communicated delightful to subordinates. (Note: Thai society is a seniority-based culture. It is the norm to position ourselves as inferior to more senior people. For example, when speaking face-to-face, direct eye contact could be viewed as non-respectful communication. In a meeting, the meeting would not start before the most senior chairperson enters the room. The use of emojis also reflected the hierarchical culture. Using an animal or a child in the emojis communicated that we positioned ourselves as inferior to the receivers of the emojis.)


- Similar to thank you message, OK messages that junior people sent to senior people

would incorporate respectful and obedience senses:  and . (Note: both emojis represent status quos for those who sent the emojis. In Thailand, we treated a dog as an animal, unlike a man-best-friend as in the West. So, the dog emoji represented that the sender was just following the command, period. Similarly, the human emoji showed the word meant “sir yes sir” used in the army. The military word communicated that the emoji sender accepts the order without any question.) While,

the following emoji, , communicated ok meaning from a boss. The emoji communicated the superiority of the sender.

- The other frequently used emojis related to appreciations for doing good jobs given to

team members. Emojis can communicate good jobs like,  and , or a good

job that needed a celebration like, .

The following four sections will discuss themes resulting from the implementation of agile working in the organization. The first two discussed the positive benefits of agile working, which were the original objectives of the action research: improving sales and helping implementation effort. The other two themes represent the negative impacts of agile working: commitment and willingness to share.

## 5.2.5 – THEMES OBSERVED AFTER THE AGILE WORKING

### 5.2.5.1 – IMPACTS ON SALES

| <b>Theme</b>  | <b>Sub-Theme</b>                          |
|---------------|---|
| Sales Results | Generating Sales Leads                    |
|               | Coaching by Customers                     |
|               | Sales Coaching (with market knowledge)    |
|               | Sales Coaching (without market knowledge) |

The impacts on sales were observed from collaboration and support from all stakeholders, like coaching from internal and clients. The result of supports led to an increase in the number of sales leads in the opportunity pipeline.

The agile sales provided quick responses to the client's dynamic environment. For sales, the ability to work under imperfect information was essential. The sales team needed to gather information and put pieces of information jigsaws together. Instead of playing with the puzzles within the sales team, public reflections initiated structural guidance to assemble the sales picture. During a weekly sales meeting, executives with direct experiences in the sales context provided coaching to the sales team to determine more information and define actions for the subsequent periods. The executives who had no direct experience in the sales context also provided unbiased perspectives from a third-party perspective. Sales could utilise the comments to define and test the hypotheses with the client.

Below are two examples from the chat logs. The first example was related to an architecture design proposal for a bank. The advice was from an ex-CIO of a large bank. The executive coached the sales team using questions to stimulate reflective discussions.

- "Additional Question"
  1. Estimate daily transaction volume so that the customer can calculate sizing and technical specification more precisely.
  2. Do we provide supports over weekends? And what time does our support cover?
  3. Do we provide disaster recovery (DR) services? If so, please elaborate on our DR services.

4. What are the requirements for servers: Production, Test, Development and DR? Can they share machines? Can [the bank] use its servers?" (Collected from a project LINE chat room)

The other example is that the sales team sought help from one executive (taken from a sales LINE chat room). The executives asked to include other coaches as the sales saw relevant.

- "I would like to ask for your advice on [the client] whether we should strategically plan an account penetration."
- "Yes, besides me, who else do you want to ask for the advice? I will invite him or her to join."

Agile working also helped the sales team to build a good relationship with customers. During the sales call, customers gave hints to the sales team to make a better sales offer. Frequent interactions with the client helped the sales to confirm the hypotheses from the sales meeting. Regular client meeting strengthened client relationship. Hypotheses testing became client coaching. Consequently, sales lead increased.

The example was taken from a meeting observation field note:

- "What I need to think is how to prepare and deliver the impactful presentation to [the bank CEO]. According to [one executive] comment, the CEO has a short interest. He focuses on key points. If we cannot get his attention within 5 mins, we lose the deal."
- "[The executive] suggests fitting the innovation synthesis to the bank bigger picture of the corporate identity."

The other impact on sales was related to collaborations from stakeholders in introducing sales leads. We discussed how to reach out to our networks and connections to generate new leads in regular sales meetings. Below were examples of the sales lead introductions.

- "I have friends in an administrative court. The court would like to accept fees in cashless payment methods. However, the court would like to retain floating cash levels between 500 to 1,000 million Thai Baht. The court also talked with the bank of Thailand. The bank advised that the court talked with Krung Thai Bank about the e-Filing system. We can approach the bank and the court for the solution." (Taken from a field note)

- “Then, [one executive] discusses whether we can do LH hotel businesses. He needs our confirmations in taking the responsibility and ownership in pushing the deal. Why so? I believe that because [the CFO] sits on the board, he will push his reputation into the deal. Comparing to the trinity deal, he does not care too much. So, we need to prepare for the Hotel deal.” (Taken from a field note)
- “So we need to discuss, if we have the database of a million Myanmar employees, how can we make money from the information, and how can we encourage the Myanmar people to use our application continuously? We require a going-in position before a discussion with our business partner in more detail.” (Taken from a field note)

#### 5.2.5.2 – IMPACTS ON IMPLEMENTATION

| Theme   | Sub-Theme                         |
|---|-----------------------------------|
| Favours from Customers During Project Implementations | Politic and Conflict Resolution   |
|   | Billable Scope Extension          |
|   | Resources during a difficult time |
|   | Speed up process                  |

For the project implementation, supports from clients demonstrated the dynamic of agile working. The client helped solve project difficulties from both the resource and cash flow aspects, such as resolving conflict among client organisations. Because of the client organisation complexity mentioned in Chapter 4, reconciling project conflicts helped the implementation move as planned. Detail of cash flow and resource-related issues will be discussed later in the chapter.

- “Lunch with [the client sponsor]: [one client execution] arranged lunch for us to discuss project issues. [the client sponsor] directly asked us what happened. What we would like to discuss.” (Taken from a reflective journal)

Similarly, for low priority tasks, from the client's perspective but were critical for the Company, client executives stepped in and resolved issues. In the case of project resource shortage, the client sent in team members to unload the company's costs burdens. Lastly, the client allowed the Company to propose project extensions to incorporate more scope such that the Company could be adequately compensated.

Below is an excerpt from the fieldnote regarding help during a budget extension discussion with the client executives (taken from a field note).

- “[The client delivery director] started with a mumbling voice that the project needs funding. The delay was because of workshop rework and learning curve.” “Most of the presentation focusing on unfunded and FX product. [The client project director] demonstrates a confident voice defending the budget request with [the project sponsor]. [The client delivery director] discussed budget require in co-development that development include interface, migration, and core engine.”
- “Four scope extension contracts were approved: 8-month extension, 4 BAs, 8 Developers, Phase 2 (future and FX products)”

The impacts on implementation were significant in cycle 2. The client helped the implementation team to control the scope. The scope problem was the results of the agile approach during the requirement phase. The requirement cycle was increased from 5 to 9 cycles. In standard practice, vendors need to absorb the extension. However, in our case, the client asked for special approval from client management committees for an exception.

The help from the client could be grouped into three categories: scope extension, project resource flexibility, and speed up the approval process. The speeding up process covered relaxing the approval processes and helping with early invoice payments.

For the scope extension, the client allowed us to charge for four additional requirement cycles. After the agile requirement phase, we could also bill for extra efforts to develop and test the additional functionalities. The project timeline was extended from one year to two years, resulting in more than double the original chargeable project price.

Besides the additional billable scope, the client helped the Company to fulfil additional resources. We negotiated two approaches with the client. The first approach was that the client sent in their people to the project team. The second approach was to hire extra resources and charge back to the client as an additional outsourcing service. At the end of the project, we would transfer the engaged project team to the client organisation for future application supports. The client took both options.

The third category was related to the timing of approval processes and the approval criteria. The client shortened their invoice payment process. Besides, the client amended the contracts such that the deliverables could be in smaller pieces for achievable documentation preparation.

The agile working helped the Company to survive the cash flow problem during the two-year implementation period.

For the project implementation, supports from clients demonstrated the benefits of agile working. The client had helped smooth out project difficulties from both the resource and cash flow points of view.

#### 5.2.5.3 – IMPACTS ON COMMITMENT

| Theme      | Sub-Theme        |
|------------|------------------|
| Commitment | Avoid Commitment |
|            | De-Commitment    |
|            | High Commitment  |
|            | Low Commitment   |

Commitments of employees and shareholders are critical to the Company success and going concerned. Despite short-term successes from the agile working in sales and project implementation, negative consequences from the lower commitment largely impacted the company. According to the data analysis, four themes reflected commitment behaviour: commitment avoidance, de-commitment, high commitment and low commitment. Commitment-related behaviours were the results of the organisation dynamic in the company. The reflective practices led to actions, emotions and power relation, which intern impacted motivation to collaborate. The commitments were analysed in a dynamic environment, which will be discussed in part two.

Below are examples of the commitments observed and kept in a field note.

#### Avoid commitment

- “[The technical lead] sat silently without mentioned anything.”

#### De-Commitment

- “When I mentioned the cash flow problem, [the CFO] spoke in a soft tone that it would be a problem investing more money. This CFO comment implied that we needed to find a debt alternative to cash flow management. If we try to push for equity, we will have a problem with [the CFO]. Soft discussion meant not support.”

## High Commitment

- “When we came back from the lunch, [the project director] asked that if we need to invest, she is willing to share the investment.”

## Low Commitment

- “He is always late. Yesterday he came to work at 1 pm. Today he had not yet come.”
  - The example shows a complaint from the project director regarding one employee who lacked accountability for the project work.

### 5.2.5.4 – IMPACTS ON SHARING ATTITUDE

| <b>Theme</b>     | <b>Sub-Theme</b>       |
|------------------|------------------------|
| Sharing Attitude | Unwillingness to Share |
|                  | Willingness to Share   |

Knowledge sharing was one of the assumptions for the Company establishment. The senior co-founders were expected to transfer knowledge to junior team members, who would run the Company in the future. The knowledge was not only limited to application logics but also customer relationship and project implementation methodology. It was planned that within three years, the junior co-founders would be the leaders of the businesses while the senior founders took coaching and supporting roles.

Since agile working stimulated reflections among the team, the reflective discussion helped employees understand a situation more deeply. The understanding revealed perceived truths: both pleasant and unpleasant. Therefore, careful management of agile implementation was critical. Data related to emotions demonstrated the observed reactions from employees. The reflective discussion led the Company to shift in business priorities across the three cycles. The shift in Company focuses supporting by employees’ perceived truths, impacted power relation in the Company. Those whose power relation was diminished expressed their unwillingness to share knowledge with other employees. Likewise, those whose power relation increased were willing to share to maximise their benefits. Examples below were observed from field notes during implementation and sales meetings.

Unwillingness to share (From a project meeting)



- “Everything is in the file.” – When asking the development director to share application design and coding, the director responded that everything was there. Take a look at yourselves. However, there was no related information when digging through the file, as the development director mentioned.

Willingness to share (from a sales meeting)

- Two senior executives discussed that the development director had opened for application knowledge transfer. “The [development director] has changed. He is more open.”

Interestingly, the dynamic of sharing had changed according to the power relation within the organisation. A detailed discussion will be presented in the subsequent sections.

### 5.2.6 – CONSTRUCTING THE CONCEPTUAL DIAGRAM

Nine emerging themes can be visualised in a conceptual diagram, as in Figure 22. Agile working was used as a change method to tackle organisation problems. At the same time, agile working stimulated reflective discussions in the organisation. The reflective practices allowed team members to understand the organisation dynamic better. The reflective discussions with underlying motivated assumptions initiated emotions within the organisation. The interactions of the factors were shaping how power was related to the organisation. Lastly, the dynamic of agile working created expected outcomes of improving sales lead and implementation success. However, agile working also created consequences for the organisation, such as decreasing commitment and willingness to share knowledge among employees.

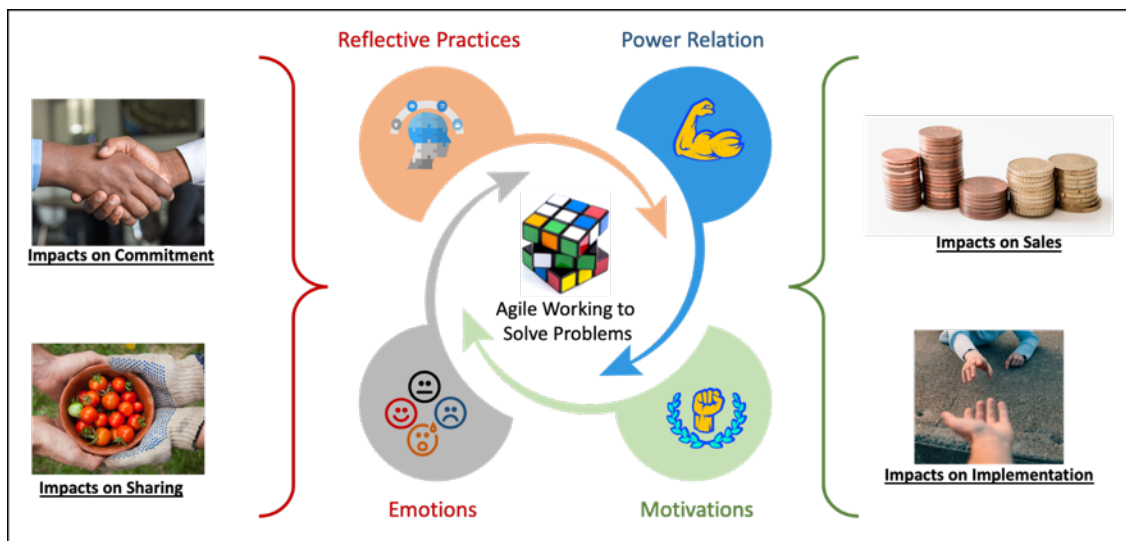


FIGURE 22: AGILE WORKING TO SOLVE ORGANISATION PROBLEMS

The following sections discuss observations in each cycle using the conceptual diagram to explain the observations. In each cycle, the discussion starts with problems that the Company needed to handle. Following the problem, the section mentions actions that came out from regular reflections of both sales and implementation teams. Then, the section discusses observations and the four themes: power relation, reflection practices, motivation and emotions. Lastly, the discussion covers the observed results and consequences of agile working in each cycle.

### 5.3 – PART TWO: MAKING SENSES OF THE FINDING

Up to this point, the finding focuses on a discrete view. However, the dynamic aspect of the emerging themes helps explain the impacts of agile working more clearly. The following sections touch on the notable finding of each theme across three cycles. Part one discreetly described the emerging themes and a model that explained the interactions among the themes. The discussion will shift to a dynamic view of the themes across three cycles (Figure 23).

Part two is organised as follow. Instead of narrating the model in a sequence following a cycle-centric approach, part two discusses a theme-centric view in the time sequence. The reason was that by following the cycle-centric approach, readers would get lost easier for the dynamic of the agile working. By focusing on themes, part two provides a better structure for readers to follow. So, part two starts with problems and actions in cycle 1, cycle 2 and cycle 3. Then the discussion will move on to subsequence themes in cycle 1, cycle 2 and cycle 3.

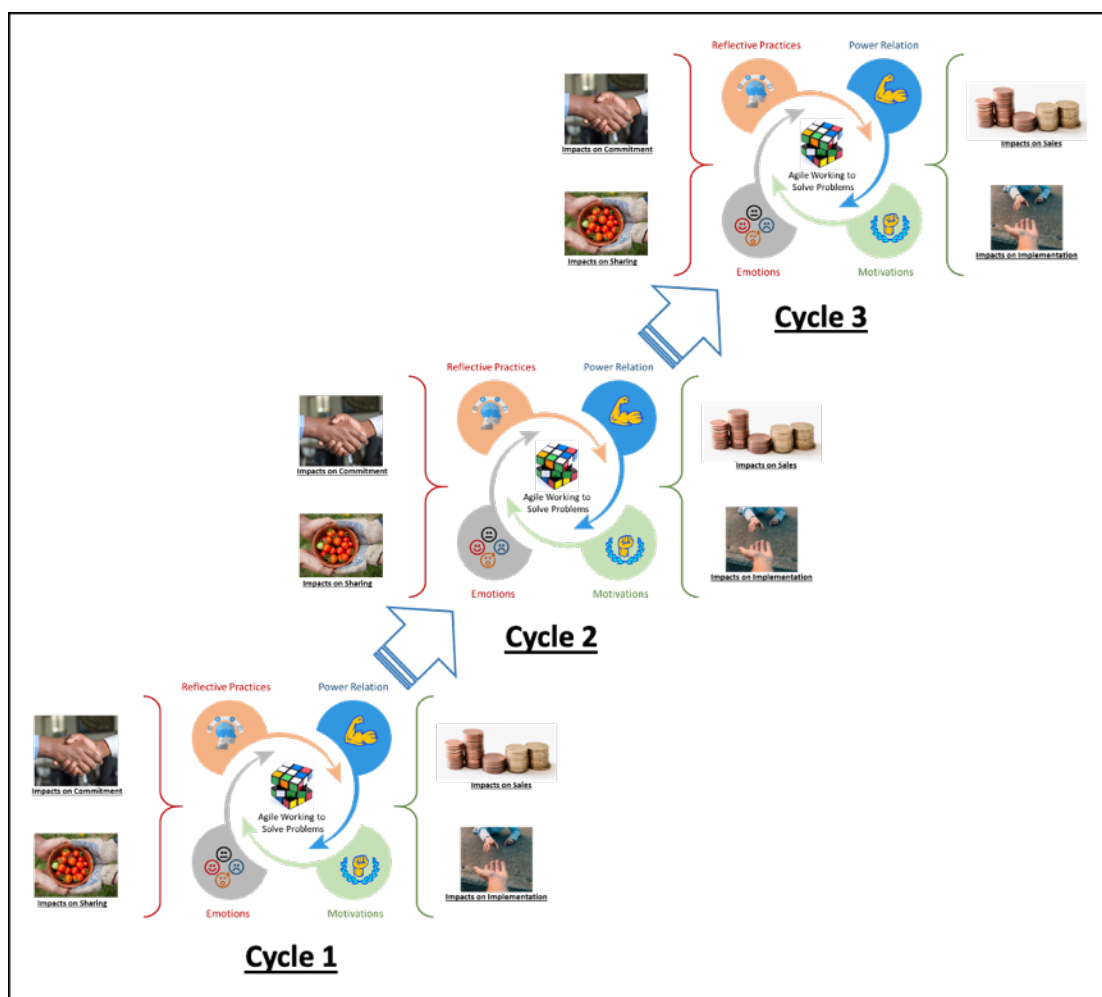


FIGURE 23: THEMES DYNAMICS ACROSS THREE ACTION CYCLES

### 5.3.1 – CHANGES OVER THE THREE CYCLES

Section 5.3.1 expands the discussion in section 4.2.4 and 4.3.3, providing observations leading to changes across three cycles. Changes over the three cycles resulted from reflective meetings in the Company (Figure 24). Initially, the Company focused on building an ecosystem with a client. We provided an implementation as well as a reasonable consultative solution to the client. During the start-up of the Company, critical shareholders with complementary skills gathered and launched the Company.

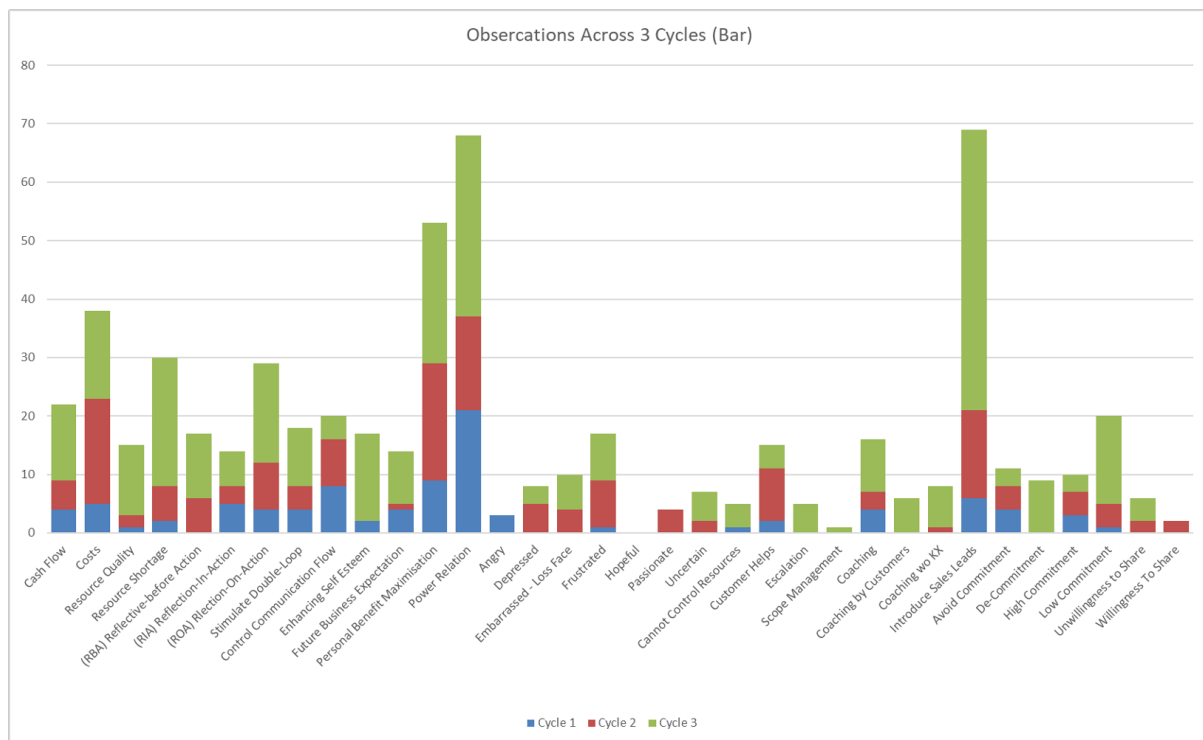


FIGURE 24: SUMMARY OF OBSERVATIONS ACROSS THREE CYCLES

In cycle 1, the Company decided to integrate account management and project implementation efforts to serve the client. However, the nature of project management caused an operating cash flow problem, which indicated subsequent actions. The actions led to the transitions from cycle 1 to 2 and 3. The actions were to help the Company to find alternative sources of revenues. Because the severity of the problems in cycle 1 was not too high (Figure 25), the Company took actions to search for new opportunities by replicating its strategy used with the existing client.

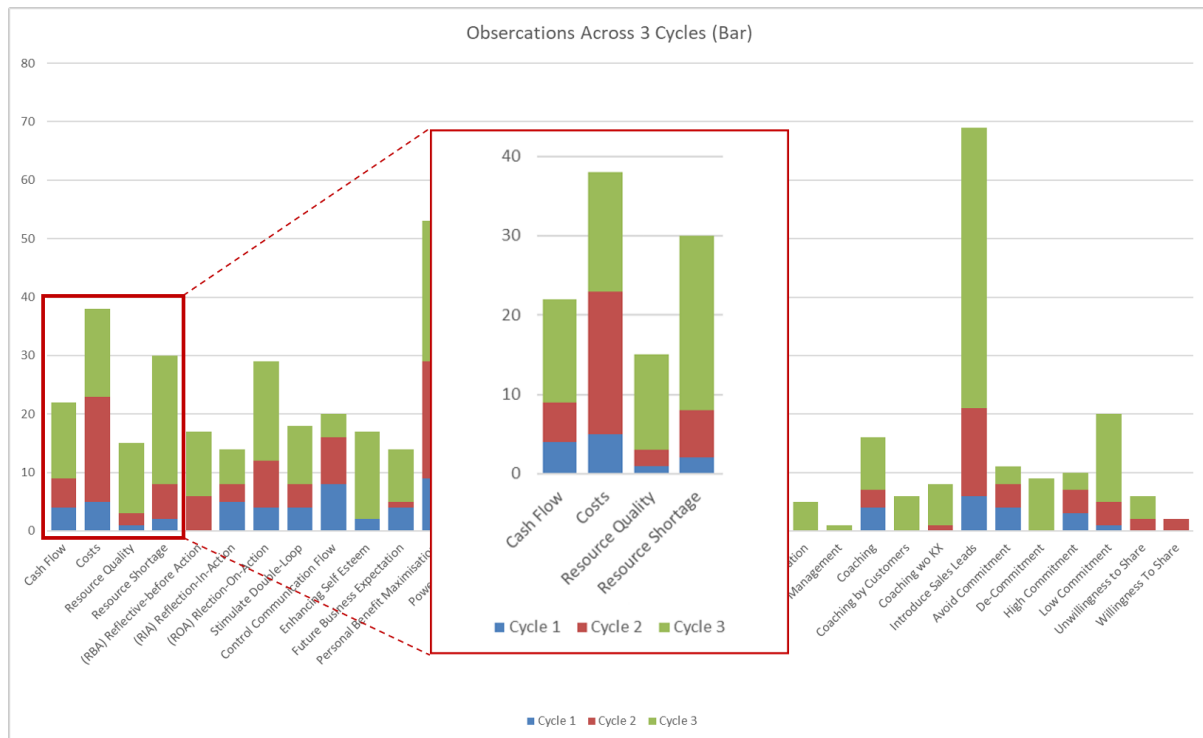


FIGURE 25: FOCUS PROBLEMS FOR THE ACTION CYCLES

In cycle 2, the management decided to explore a new ecosystem to support ongoing Company operations. Therefore, sales management had been separated from project management. The situation caused interactions and dynamic changes. By increasing expansion focuses, the Company faced a resource shortage problem. The resource shortage retrospectively came back to block company expansion activities (Figure 25). The ecosystem expansion attempts in cycle 2 were under the company control. Founders maintained their original share concentrations in the Company.

However, the actions in cycle 2 were not effective enough in solving the problems. The Company decided to take more drastic actions. Founders agreed to forego their ownership concentration by looking for partners who could help to solve the problems. So, in cycle 3, management decided to seek a relationship with a more prominent company aggressively. The partnership was introduced through one of our original shareholders. The partnership approach allowed the Company to expand its products to cover broader areas. For example, instead of focusing on supply chain solutions, the Company can explore a leasing solution, SAP, innovation and gamification. The expansion inevitably intensified resource-related problems.

However, the partnership disrupted the Company power-relation. The power-relation within the Company had significantly shifted from the original group of executives to the joining

shareholder. In cycle 3, the Company were focusing primarily on sales and lead generation. The disruption in the existing ecosystem caused frustration while producing expected sales lead generation.

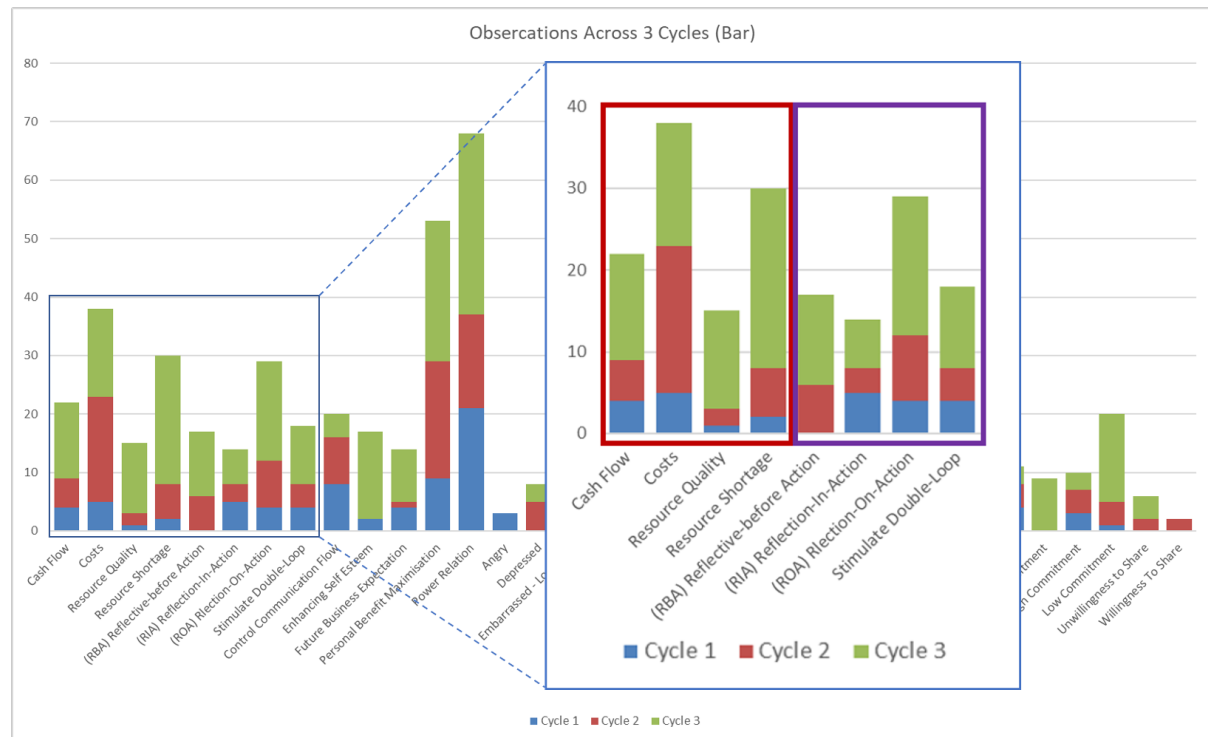


FIGURE 26: PROBLEMS AND OBSERVED REFLECTIVE PRACTICES ACROSS 3 CYCLES

Reflective practices also showed the actions' impacts in cycles 1, 2 and 3 (Figure 26). In cycle 1, the Company operated in the least disrupted condition. So, the reflection did not observe as intense in cycle 2 and 3. Founders used their tacit knowledge to manage the Company.

However, when the Company adjusted the strategy, more reflective practices were observed. Interestingly, in cycle 3, where the company owner structure shifted, reflective practices were often used to understand the change in Company working dynamic from the new partner.

Section 5.3.1 discussed observations for the transitions across three cycles briefly. However, to investigate deeper, the subsequence sections address the findings in more detail.

### 5.3.2 – SOLVING ORGANISATION PROBLEMS THROUGH AN AGILE WORKING

The agile working facilitated reflective practices, which led to adjustment to company strategy and interactions with clients. The problems that agile working attempted to solve, like the cash flow situation, led the company to move away from an ecosystem strategy toward diversification. Despite the actions to diversify the ecosystem, the cash flow problem still

needed time to recover. The short-term operating cash flow management forced the Company to seek an investor during the end of cycle 2. The injection of cash in cycle 3 created a new power relation formation. All of the changes from a complex responsive process in the organisation led to interesting observations, especially in the dynamic of emotion observed among the employees.

The actions to solve problems in cycle 1 led to new problems in cycle 2. Similarly, actions taken in cycle two stimulated the emergence of new problems in cycle 3. For example, to help with the cash flow shortage in cycle 1, the Company had diversified businesses by exploring the additional opportunity of another client. The expansion started to impact the resource requirement in cycle 3. However, in cycle three, where the focus was on new sales, the resource shortage problem became more significant. The resource shortage problem had also been strengthening by the intensity of project delivery with the existing client. Even though the client helped with the resource shortage, adding more project members without the company's financial burden. The resource shortage problem worsened in cycle three, where business development activities were intense. The resource shortage caused both project teams and the sales team to share resources. The increased utilisation of resources impacted the quality of work performed. The lower work productivity led to the perception of resource quality.

### 5.3.2.1 – PROBLEMS AND AGILE WORKING ACTIONS IN CYCLE 1

#### 5.3.2.1.1 – PROBLEMS IN CYCLE 1

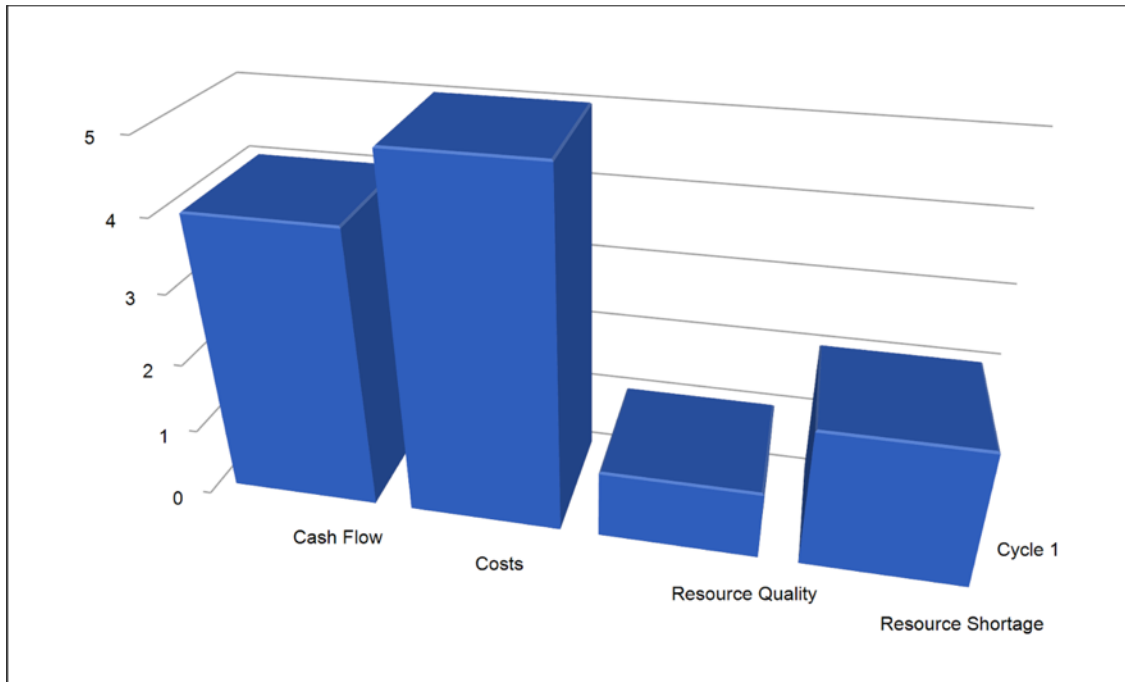


FIGURE 27: PROBLEMS IN CYCLE 1

During the constructing step in the action research cycle, the management discussed the problems the Company faced. Figure 27 visualises four groups of unique issues discussed among the executives in cycle 1. The company faced cash flow and resource cost problems in cycle one because of mismatching between outgoing payments and the incoming cash from project revenue collection milestones. If the project were on plan, both cash inflow and outflow would balance out during the early of the project implementation. Once the project progressed, the incoming cash inflow would be higher than the outgoing flow. However, the project cash collections were tied to the project milestones, which were uncertain depending on the project management capability of the project management team. The Company hired senior management to strengthen Company consulting capabilities and reputation. The inevitable high cost was the consequence. Because of the cash problem and the high-cost structure, the Company had limited hiring additional resources to help in the projects.

#### 5.3.2.1.2 – ACTIONS IN CYCLE 1

To cope with the problems in cycle one, the Company had focused on an integration effort of sales and implementation teams in the client projects. The sales team helped the project team manage communication flow and expectation between the client organisation and the project team. The integration of project and sales activities was expected to help manage client



expectations and smooth out any project resistance. The integration could help with on-time cash collection schedules.

Agile working was used during a sales team meeting and implementation project team meeting. The agile working opened up discussion among the team members. Agile working was also used in the form of face-to-face meeting and used in online chats. Face-to-face meetings were set up weekly, while online chats were used during the day and beginning of day recaps. Both sales and project meetings happened at the client sites in cycle one because of the integrated account management approach. The project team had a dedicated project room that could be used exclusively by the company.

The integration of sales and project activities helped the project team to unload some project cost burden. A technical sales manager helped the project in a business analyst role because the technical manager understands both client requirements. After all, he had involved in the project selling and helped closed the deal. The technical manager also understands the technical aspect of implementing software. So, the technical manager spent a minimum learning time adjusting to the project work. In the sales aspect, the technical manager acted as an inside sale in the client account. He could identify up-selling and cross-selling opportunities. Besides, he could spot out any threats from other vendors' and competitors' movements in the account.

### 5.3.2.2 – PROBLEMS AND AGILE WORKING ACTIONS IN CYCLE 2

#### 5.3.2.2.1 – PROBLEMS IN CYCLE 2

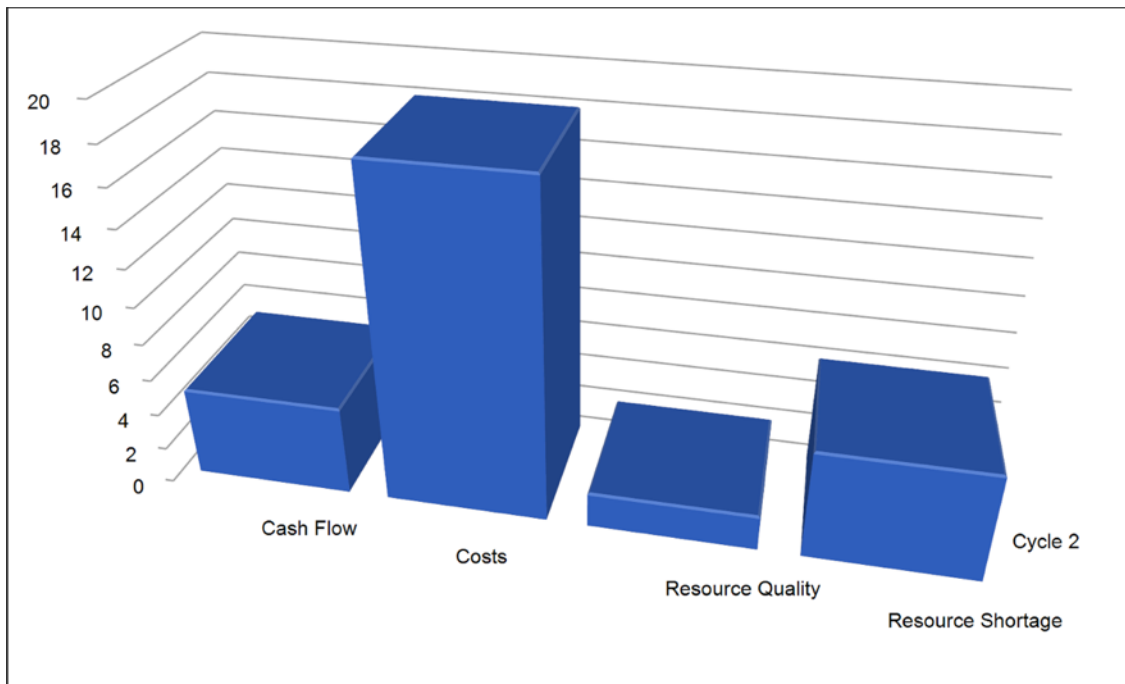


FIGURE 28: PROBLEMS IN CYCLE 2

In cycle 2, high operation costs were also the dominant problem that the Company must solve (Figure 28). Because the Company business was in software development and implementation, most of the costs were resource costs, as mentioned in cycle 1. The high costs incorporated with continue cash flow concerns put pressures on hiring resources to fill in the resource gaps in the project implementation. The Company original plan of having top management control all the coding intellectual knowledge and hiring low qualified resources fired back to the Company resource quality problem. Initially, the Company wanted to have a large number of working employees with a limited number of high standard employees. However, in the situation, the resource shortage forced employees to expand their accountabilities. Unfortunately, the more responsibilities the management asked employees to take, the less productivity and efficiency the Company could derive from the employees.

#### 5.3.2.2.2 – ACTIONS IN CYCLE 2

When the implementation project faced difficulty controlling project scopes and cash flows, one action to cope with costs and cash flow was to expand sales focus. The Company decided to increase the sales focus by replicating the existing client's success to another client with similar requirements as the current clients. The increased sales focus caused the sales team to spend lesser time with the existing client. The action impacted the previous utilisation of the

sales team in the project activities. The move increased pressures on the project’s resource management tasks, which were increasingly intense during the solution prototyping phase.

Another impact on the separation of the sales and the project team was the colocation between sales and project team as in cycle 1. Because sales activities went beyond the existing organisation, management decided to reduce the improper usages of the project room by locating sales meeting to off-project locations. The relocation automatically created a separation of sales and project teams. The account management role failed back to the project director responsibility. The project director had to work closely with the client project team to solve the implementation problems

In addition to the sales expansion, the Company implemented tight cost control mechanisms. All expenses were frozen. All the recruitments were on hold. The focused action was on increasing productivity. All employees must take more responsibility and work longer hours. The action put pressure on the Company working environment. Regular project dinners and outside meetings were cut down. The cost control significantly impacts emotion in the Company, as would be discussed in subsequent sessions.

### 5.3.2.3 – PROBLEMS AND AGILE WORKING ACTIONS IN CYCLE 3

#### 5.3.2.3.1 – PROBLEMS IN CYCLE 3

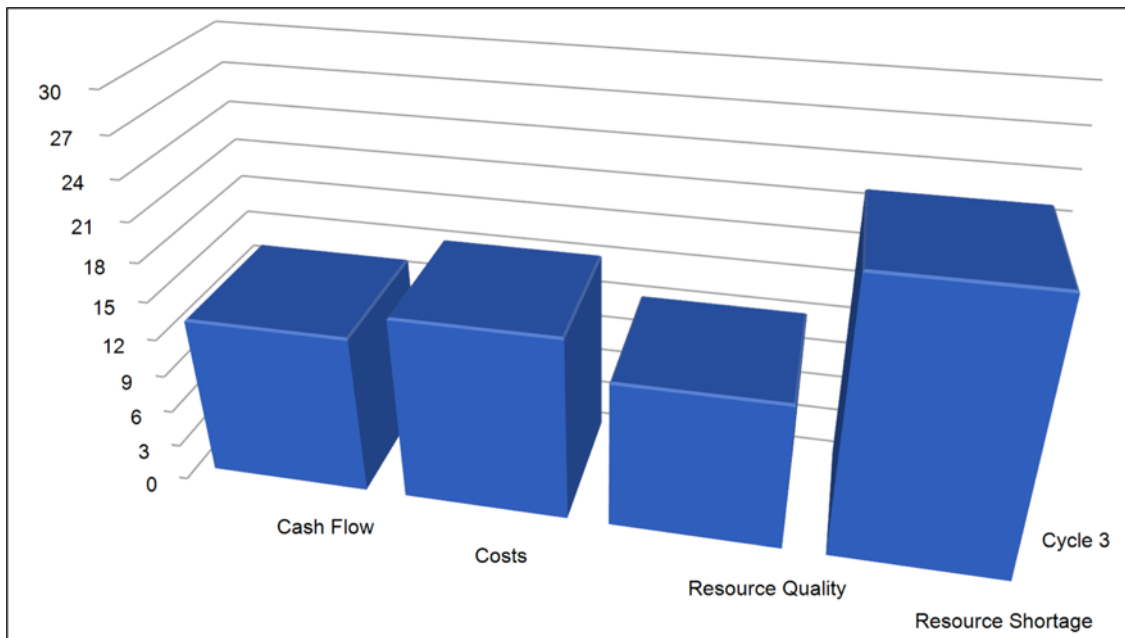


FIGURE 29: PROBLEMS IN CYCLE 3

In cycle three, all four problems had elevated (Figure 29). The increased problems were interconnected. The problems were originated from difficulty in the project implementation and the slow new sales generations. The two sources had made the cash flow problem intensified. New resource recruitment became a difficulty. Thus, the workload failed for the existing project team.

#### 5.3.2.3.2 – ACTIONS IN CYCLE 3

In cycle 3, the management decided to partner with a large local IT vendor to help with the problems. The partner is expected to help with cash flow, implementation resources and new sales. The new partner had more than a thousand IT consultant with the Company could utilise. The new partner was introduced by one of the company's major shareholders. Once the partnership was finalised, the shareholder joined the Company management team to help drive the partnership mechanism. (Note: Because the shareholder had realised the agile working approach, the consent was given by him before the beginning of cycle 1.)

In addition to the partnership effort, the management also pushed for project scope control and scope extension signing. The project director could successfully get the scope extension signed off during the transition to cycle 3. In cycle 3, the commercial contractual agreement was the focus of the project director. Usually, the contractual agreement could take three months to get all signatures. After the contract signing, the client can issue purchase orders for the invoicing process. Because of the cash flow problem, the project director could not wait for the long lead time. The director took actions to get the cash in before the contractual process completed. The implementation and sales teams work collaboratively and frequently through the agile working approach to achieve the cash flow objective.

The other action was for the CFO to control the expenses tightly, shorten the cash collection time, and stimulate a faster sales cycle. The CFO decided not to use bank facilities but to borrow from shareholders instead. The interest that a bank charged could be as high as 10% annually. In contrast, shareholders lend money at a 5% annual rate. Unfortunately, borrowing from shareholders created reactions from some of the senior members of the shareholders because of the senior expected passive income from the investment, not more debt investment.

Figure 30 shows the change in problems across three cycles. The problems were worsening throughout three cycles, mainly because of the difficulty in project implementation, which was delayed from 1 year to 2 years. The worsening of the project situations caused the Company to exercise agile working to solve the problem. The worsening of the problems caused turbulences

in emotion and power relation in the company, which would be discussed in the subsequent sections of the chapter.

At the thesis point, the project was completed, and all four problems were solved. The project took two years to implement. The Company got maintenance and enhancement contracts from the client for another year.

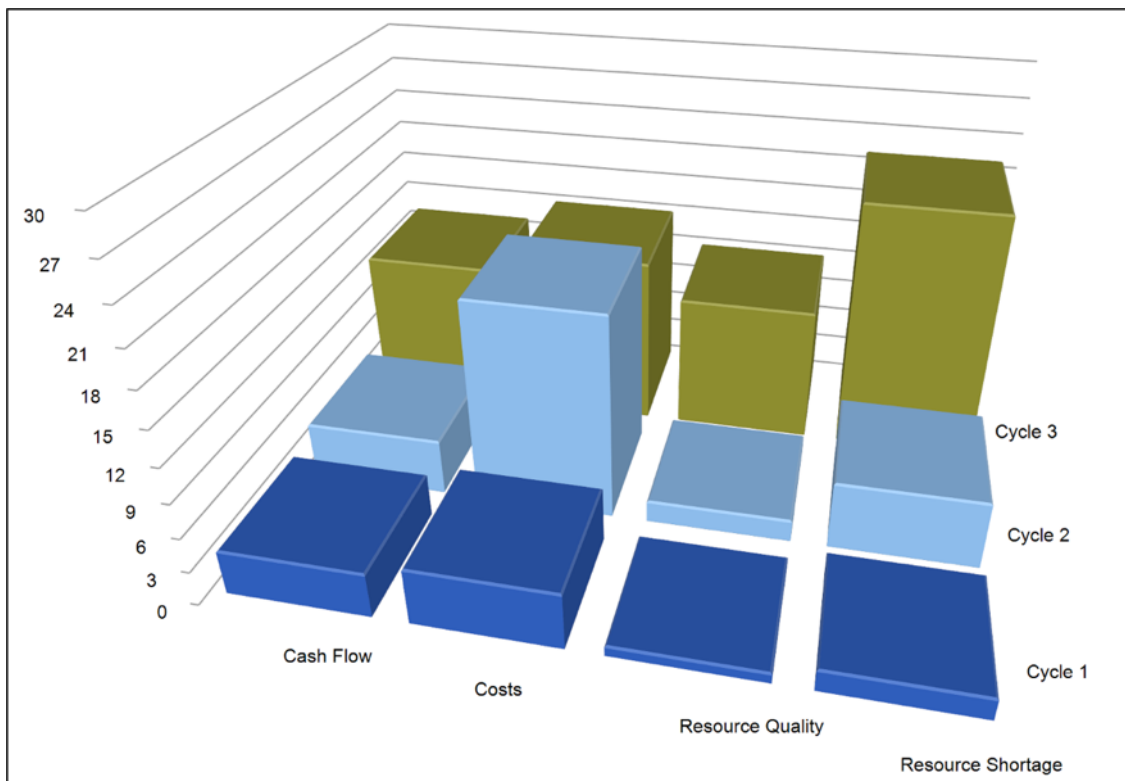


FIGURE 30: PROBLEMS ACROSS 3 CYCLES

### 5.3.3 – OBSERVATIONS DURING THE AGILE WORKING ACTIONS

#### 5.3.3.1 – POWER RELATION

##### 5.3.3.1.1 – POWER RELATION IN CYCLE 1

As discussed in part one of the chapter, the development team held the veto power in the company. The power was exercised beyond the Company boundary. From fieldnotes, the development director could even reject client management decisions to any program modification. Because of the development director power relations over the client, it was the account team responsibility to smooth out conflicts within the project. While the development team held veto power, the development needed helps from the sales and project team to interact with customers. The balance of power between development and non-development groups

created a co-existing ecosystem in the company. The co-existing ecosystem was the governance and dynamic for the agile working in cycle 1.

#### 5.3.3.1.2 – POWER RELATION IN CYCLE 2

Because the focus action in cycle 2 was in a separation of sales and project management team to seek a new ecosystem for the Company. Power in the Company had shifted away from the development team. In the second cycle, project health was not in controls. Pressures built up from the communication and scope gaps. Because cash flow from the project was critical to the company, the project director could demand attention from everyone in the company. The director also helped in negotiating with the client for scope extension and early sign-off processes. The project difficulty situation allowed the project director to have veto power. The director could demand the most skilful resource to work full-time on the project. The requests impacted other functions in the company, especially sales and business development because the resources could conduct in-depth technology discussions and demonstrations with a client.

#### 5.3.3.1.3 – POWER RELATION IN CYCLE 3

Lots of changes happened in cycle 3. The most significant changes were the shifts in focus from expanding the businesses with the existing client to maintain the status quo and waiting for a future project. The maintenance strategy at the client reduced critical activities that the development team and the project team could perform. Consequently, dependencies on both teams were reduced. Banking solution intellectual properties that belonged to the development director were not required in the new strategy. So, the power statuses of the two teams were reduced.

The other change was that the Company expand its ecosystem, utilising the partnership infrastructure. The sales focus was extended from traditional banking solutions to financial supply chain (SCF) solutions. The SCF solutions were to help to utilise working capital within a supply chain. The SCF solution allowed companies in a supply chain helped one another before seeking help from a financial institution. For example, the solution facilitated a barter system and trade credit mechanisms within a particular supply chain. The companies could use barter and trade credit to get the required working capital from the supply chain. Also, the SCF could link to crowdfunding and peer-to-peer lending platforms for additional working capital requirements. The SCF solutions required help from the partner's networks. Partner helped introduce the SCF solution teams to prospects in the agricultural, manufacturing, automotive, hospitality and health care sectors. Because the developer and project directors

did not have in-depth knowledge in the real sectors, they relied on the sales team to lead the opportunities. Additionally, because the real sectors were located outside Bangkok, travel requirements became obstacles for the two senior directors to accommodate.

The two main changes in the Company strategy made sales and partnership teams more powerful. The shift in power relation in cycle 3 disrupted how people behaved, discussed in the related section of chapter 5.

### 5.3.3.2 – USES OF REFLECTION

#### 5.3.3.2.1 – REFLECTION IN CYCLE 1

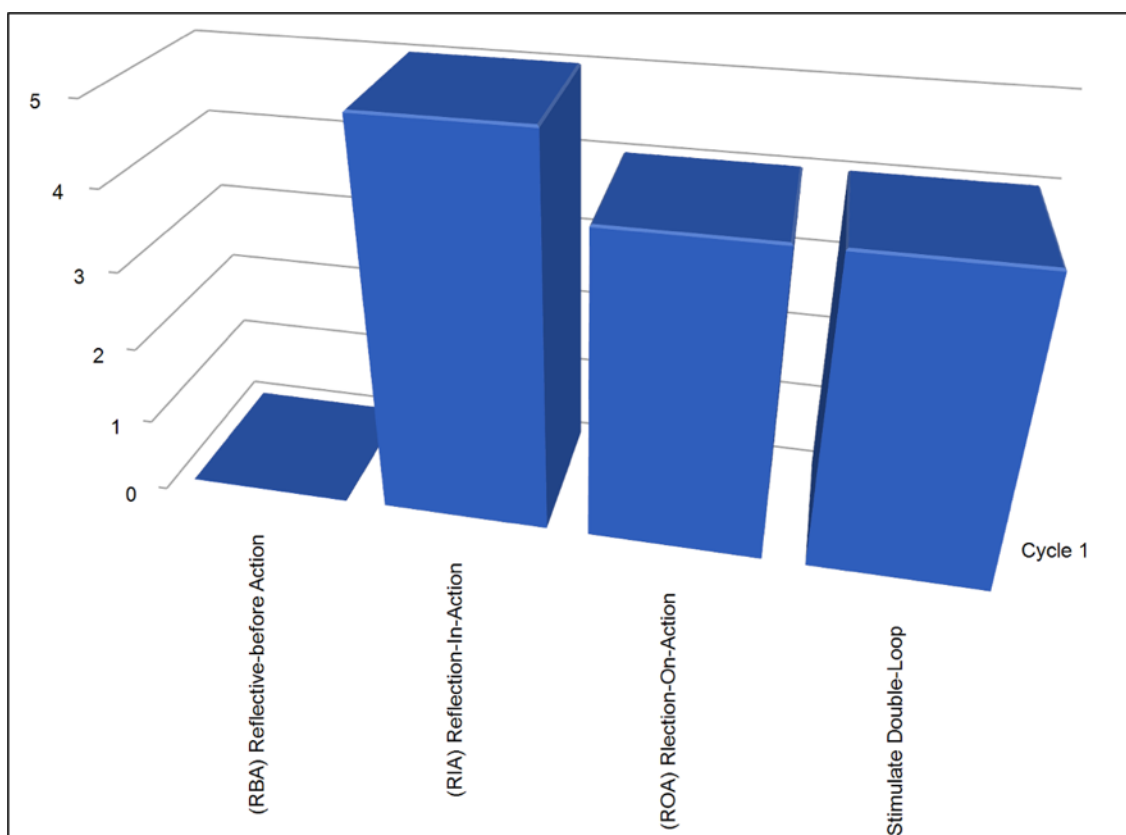


FIGURE 31: REFLECTION IN CYCLE 1

The uses of reflective practices were observed mainly from the participant observation during a meeting of sales and implementation meetings (Figure 31). The data from the observation field notes were coded and linked to the four reflective practice categories. Despite the observation, the usages were not high in numbers for reflection-in-action, reflection-on-action and the use of the question to stimulate reflection. Interestingly, there was no observed incident of reflection-before-action in cycle 1. During regular meetings, most of the discussion focused on backward reflection. The backwards discussion mainly was focused on the implementation

activities. The team discusses what and why the situations had happened. There were also uses of questions to stimulate reflection practices among the team members. The questions were primarily used in the review of the implementation result. The questions helped the implementation team to think through last period actions.

### 5.3.3.2.2 – REFLECTION IN CYCLE 2

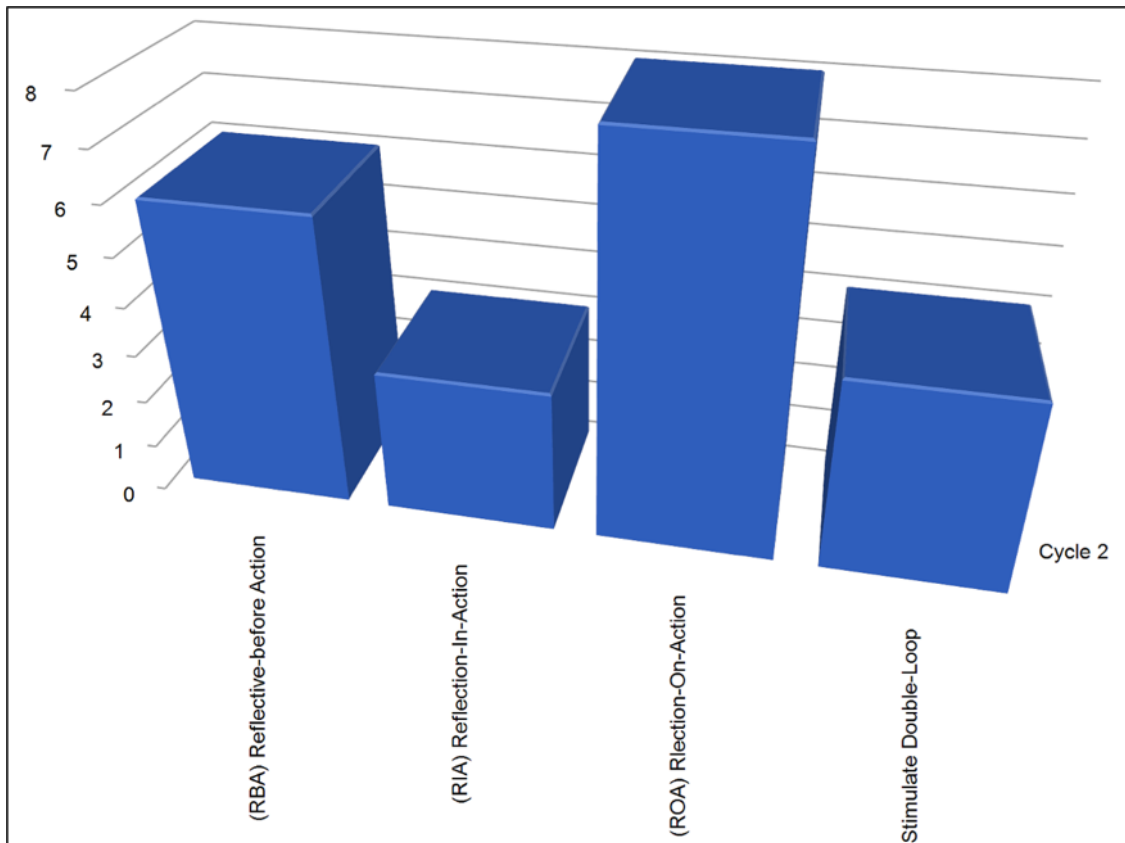


FIGURE 32: REFLECTION IN CYCLE 2

In cycle 2, when sales activities started beyond the current client, the sales team reflected upon possible reactions that prospects would react to (Figure 32). The reflection-before-action helped the team to be prepared for the most appropriate solutions to the prospects' expectations. Other types of reflective practices also increased compared to those in cycle 1. The uses of reflective practices could be observed more frequently in cycles. The increased uses of the reflective practices could be from the effect of the agile working that makes the team open up the discussion and were willing to challenge and be challenged.



### 5.3.3.2.3 – REFLECTION IN CYCLE 3

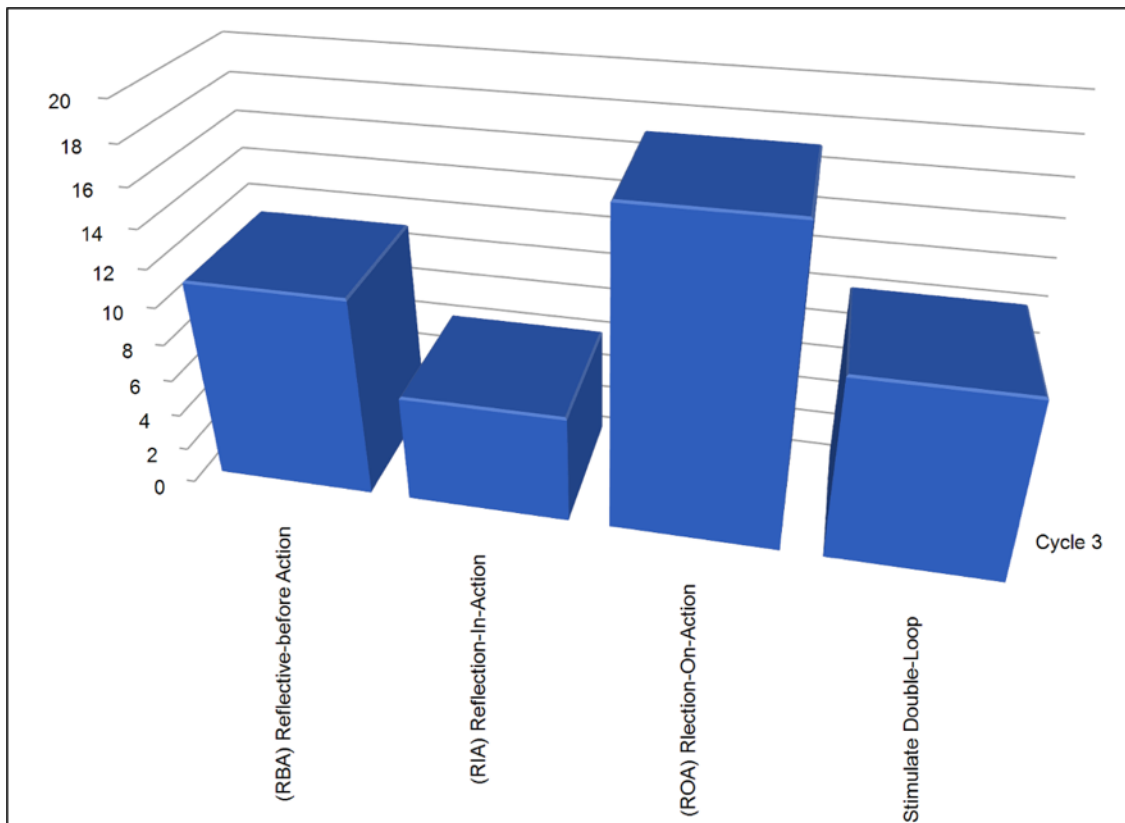


FIGURE 33: REFLECTION IN CYCLE 3

In cycle 3, the uses of reflective practices were significantly increased (Figure 33). The increase was incorporated with the disruption of the power ecosystem from the management decision to explore a partnership approach. The disruption in the power relation made the team make sense of the uncertainty from the Company dynamic.

### 5.3.3.3 – MOTIVATION

#### 5.3.3.3.1 – MOTIVATION IN CYCLE 1

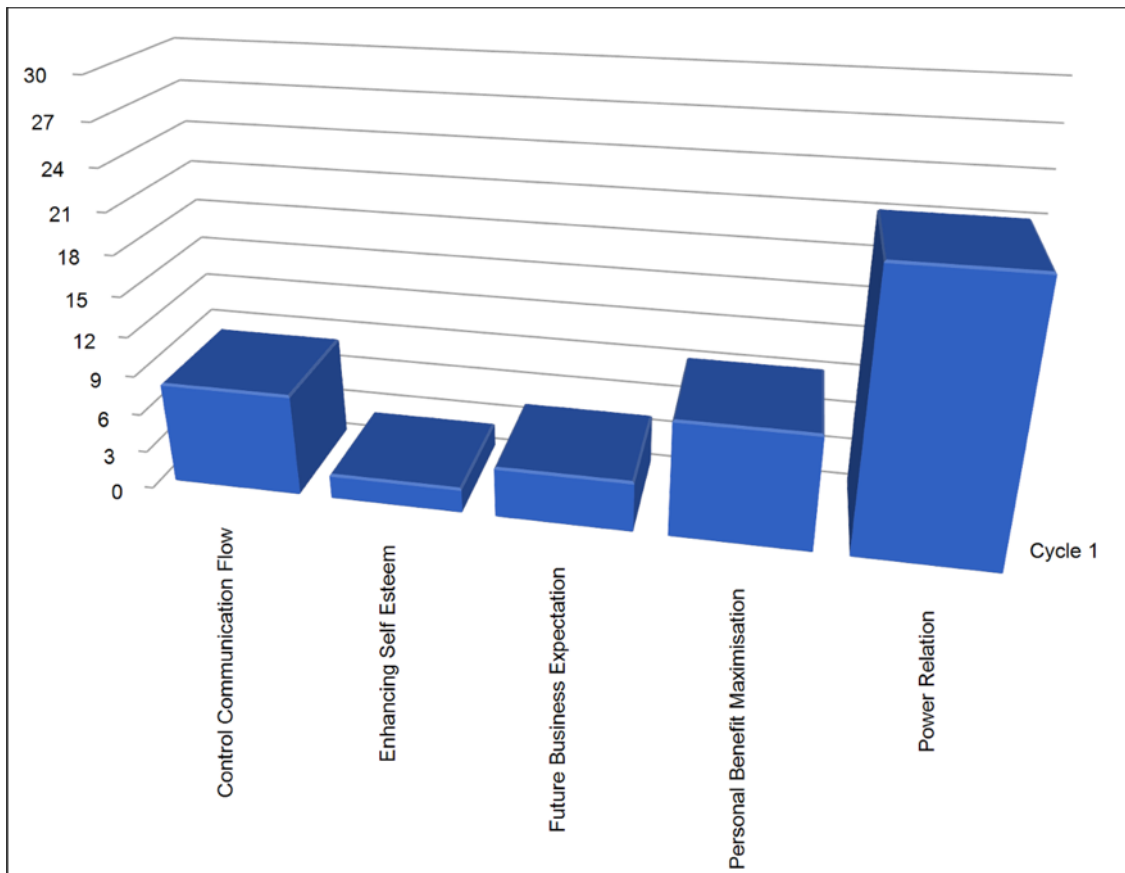


FIGURE 34: MOTIVATIONS IN CYCLE 1

From collected data, about five sub-themes related to motivations drove interactions during the agile working actions (Figure 34). The most dominant motivation was the maintenance of power status in the company. The maintenance of the power relation tied to the maximisation of personal benefits. The personal benefit maximisation objective was the main reason the Company was established in the first place. As mentioned in Part one of the chapter, personal motivation helped drive actions toward the project implementation's success.

Interestingly, to obtain the personal interest objective, the company's management sought to strengthen their power relation in the Company dynamic. In Cycle 1, the power was with the development team. The development director leveraged the implementing application to get future passive personal income by having junior management carried on the implementation. In contrast, the development director got a 50% share of the license revenue. To maintain the power relation, the development director held on the core coding of the application. So, future

project implementations must rely on the development director. Otherwise, the implementation would not be successful.

For those who had little control of the development asset, being a gatekeeper was one of the key motivations to balance the power relation in the company. Holding on to the information flow helped to build the power status for non-developer teams. Sales team held on the critical customer executives and other shareholders in the company—the project management team held on the client project teams and users. Both sales and project management teams acted as buffer zones shielding out non-development specific information to the development team. When looking at the surface, the gatekeeper roles helped provide peace of mind to the development team. However, when reflecting deeper, the blockage of information flow weakens the power relation of the development teams. The gatekeeper provided a balancing power for the collaboration between the development and non-development teams.

#### 5.3.3.3.2 – MOTIVATION IN CYCLE 2

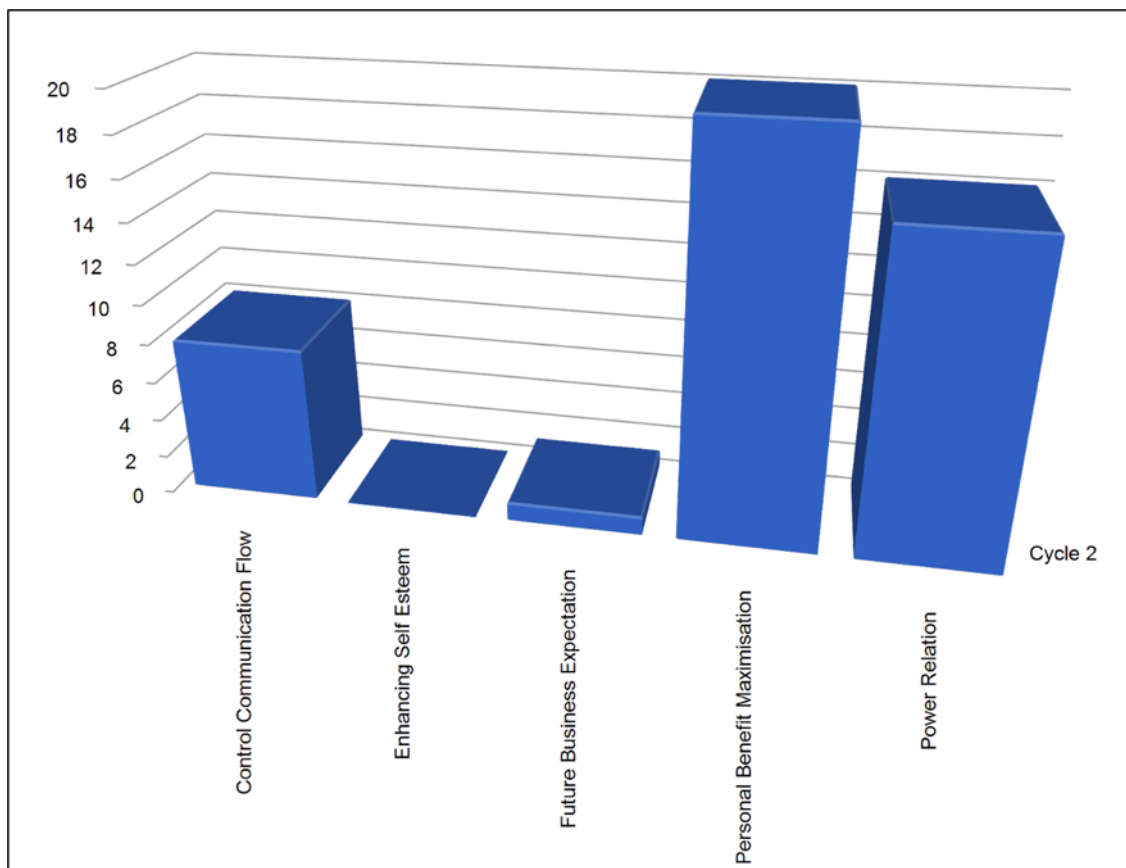


FIGURE 35: MOTIVATIONS IN CYCLE 2

In cycle 2, when the Company shifted its strategy to focus more on sales expansion, behaviours that expressed self-interests in maximising personal benefits were observed more frequently.

Senior founders had sensed the shift in the focus; each executive was protecting their interests while maintaining their power relation in the organisation (Figure 35).

### 5.3.3.3.3 – MOTIVATION IN CYCLE 3

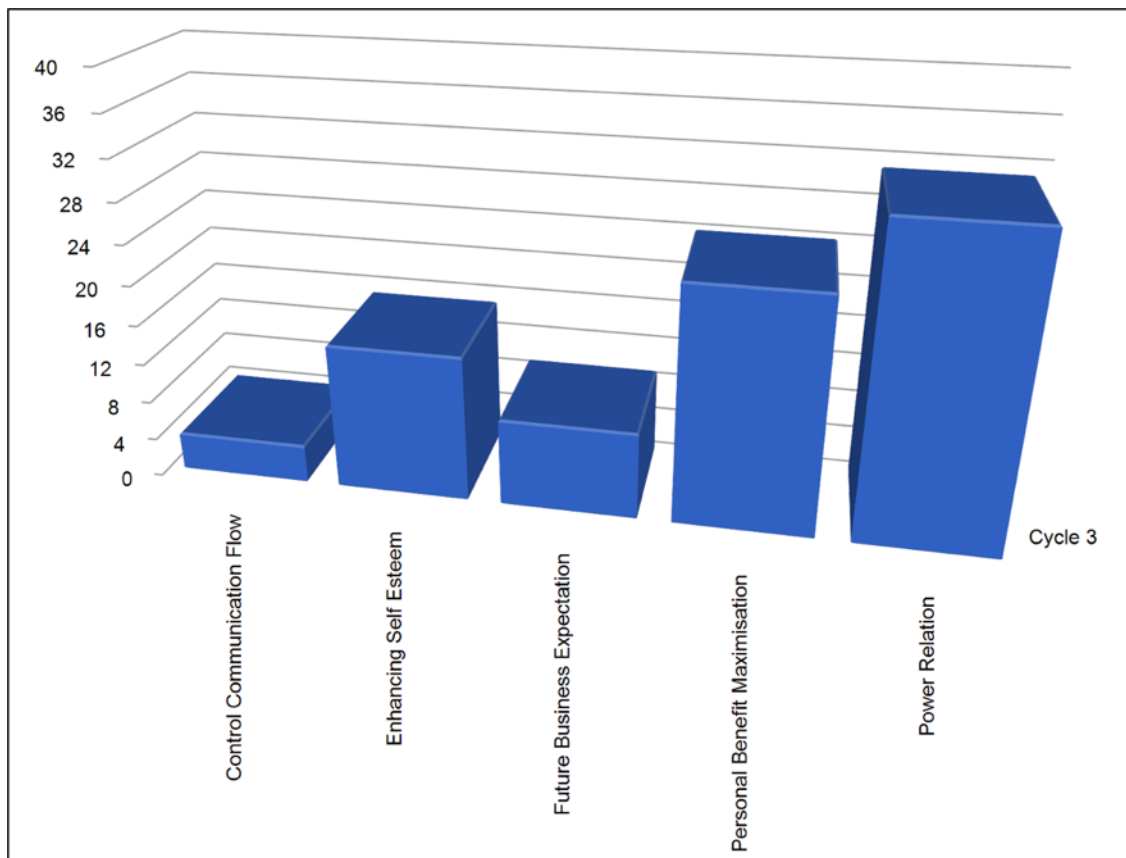


FIGURE 36: MOTIVATIONS IN CYCLE 3

In cycle three, the intensities of observed events were even more significant compared to those in cycle 1 and 2. In cycle 3, the motivation behind interactions drove interactions in the company. The observed motivation implied a power game in the company (Figure 36). The observation aligned with the finding in the power relation section of part two, where the power shifted from original developer groups to sales groups. The power game was to ensure personal benefit maximisations to involved stakeholders. When the company's dynamic had changed, each executive tried to secure their empires in the company.

### 5.3.3.4 – EMOTION

#### 5.3.3.4.1 – EMOTION IN CYCLE 1

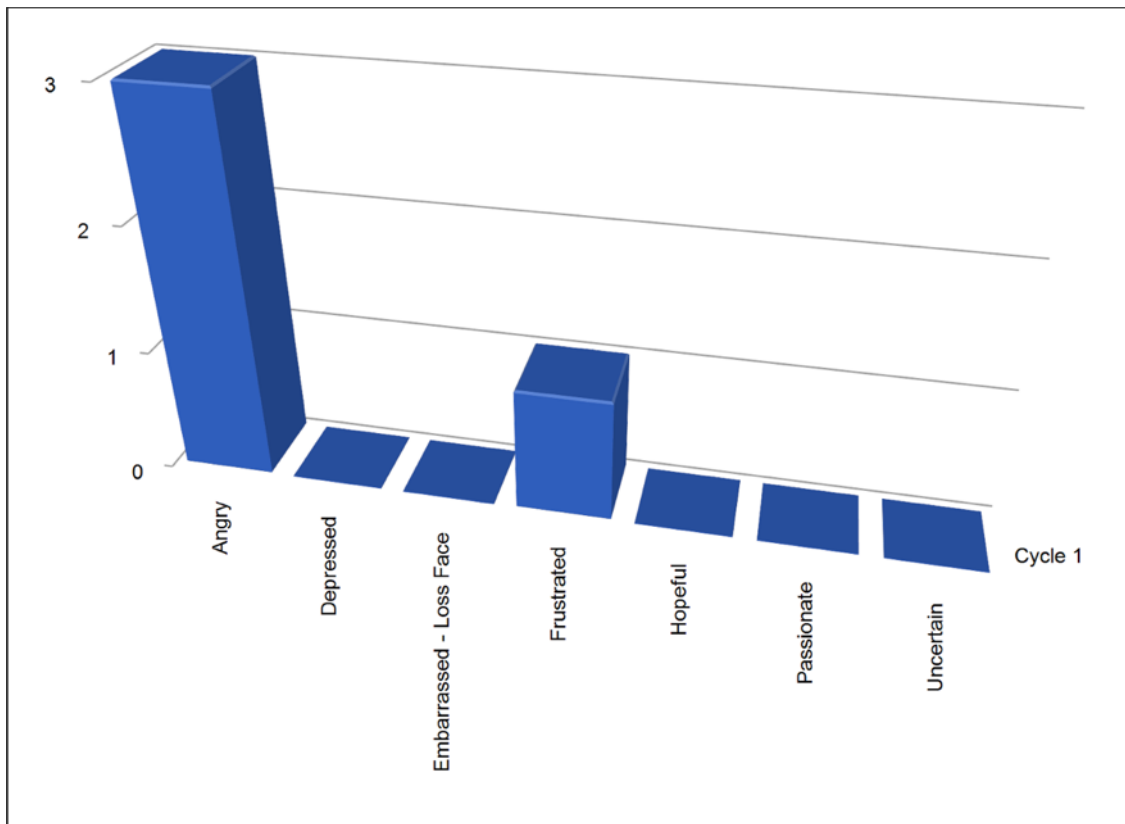


FIGURE 37: EMOTIONS IN CYCLE 1

In cycle 1, not many expressions of emotions were observed (Figure 37). Two observable emotions were anger and frustration. Most observed anger incidents were from the use of reflective practices during the agile working. Because of the balance of power relation during cycle 1, the observations of the emotion were not prominent.

#### 5.3.3.4.2 – EMOTION IN CYCLE 2

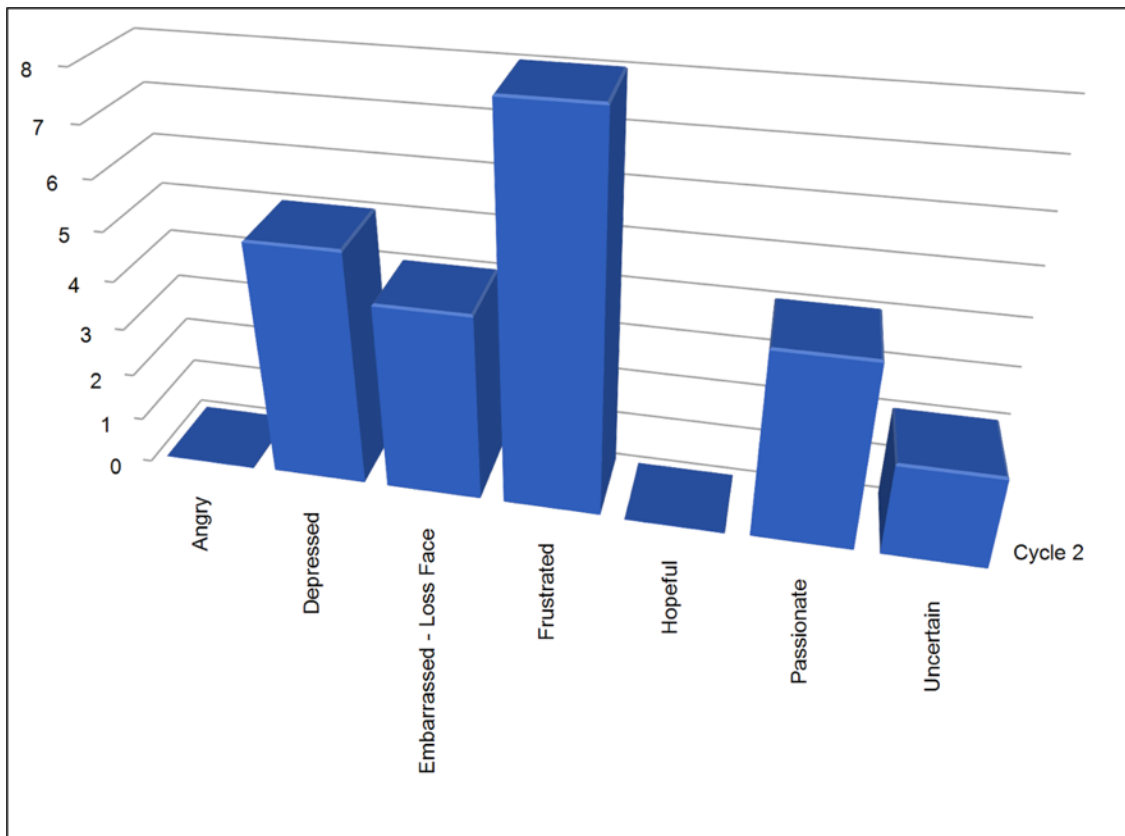


FIGURE 38: EMOTIONS IN CYCLE 2

In cycle 2, participants expressed emotions that implied their upsetting emotions (Figure 38). Those emotions were the results of the cost controls and productivity push actions. The increasing workloads and pressures made the employees depressed, frustrated and uncertain. The use of agile working created status quos for some executives. Subsequently, embarrassments were observed. Interestingly, agile working helped some people to foresee a bright future from actions taken. Thus, passion was reflected in the optimism of those people.

### 5.3.3.4.3 – EMOTION IN CYCLE 3

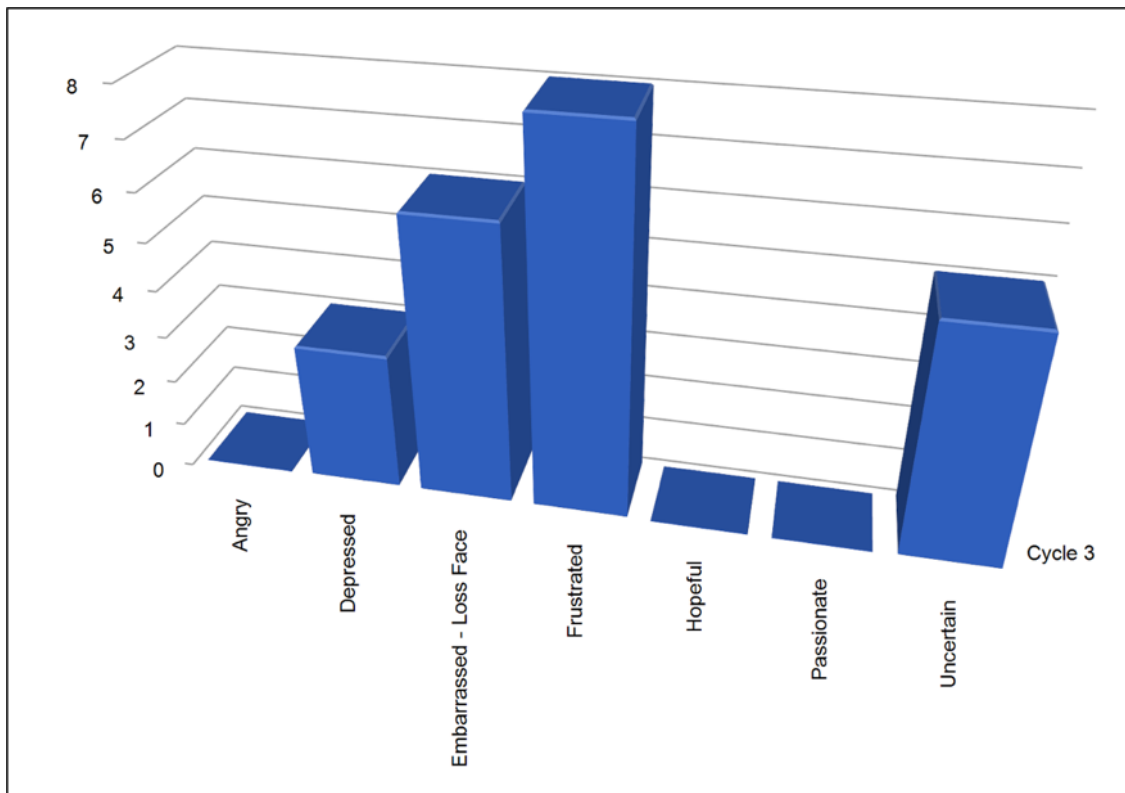


FIGURE 39: EMOTIONS IN CYCLE 3

In cycle 3, because of the management actions to disrupt the Company balance of power by bringing in a partnership to the company, dominant power camps resisted the change. So negative emotions were dominant during the cycle (Figure 39). The emotion led to the sharing attitude and commitment to those who lost the power status. The sharing attitude and commitment will be discussed in later sections in part three.

### 5.3.4 – OBSERVATIONS AFTER THE AGILE WORKING ACTIONS

#### 5.3.4.1 – IMPACT ON SALES

##### 5.3.4.1.1 – IMPACTS ON SALES IN CYCLE 1

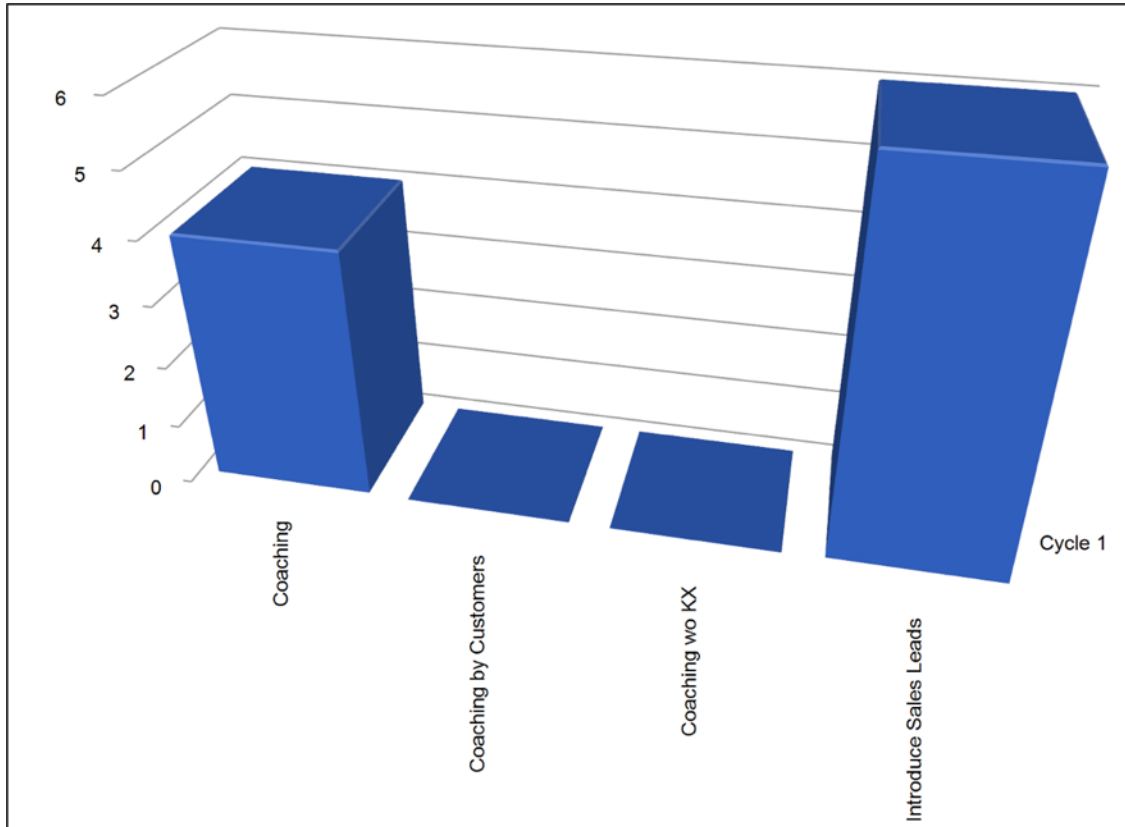


FIGURE 40: IMPACTS ON SALES IN CYCLE 1

Agile working helped the sales team think and reflect upon the selling approach (Figure 40). As we focused on cross-sales and up-sales within the client organisation, the increase in sales leads was substantial concerning opportunities in one client. The sales lead incremental was supported by the increase of coaching across the team. Both sales and implementation teams helped to coach and shared their views of opportunities with the client. As the focus of cycle 1 was on the account management integration, coaching was from familiar with the client organisation. So, coaching without knowledge of the sales context was not observed. However, it was interesting that there was no incident that the sales team could recruit customers as their coach. Usually, recruiting customers as the sales coach was critical in successful complex sales (Ulaga and Kohli, 2018).



### 5.3.4.1.2 – IMPACTS ON SALES IN CYCLE 2

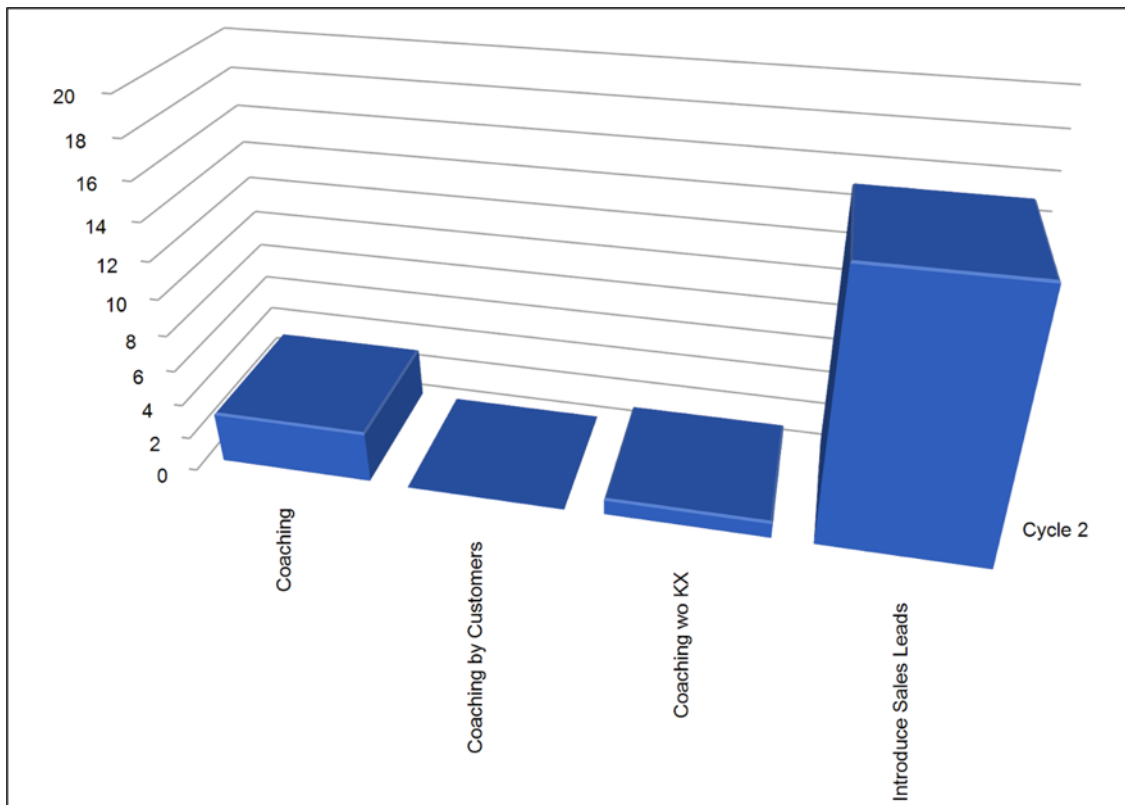


FIGURE 41: IMPACTS ON SALES IN CYCLE 2

In agile working cycle 2, the number of sales leads increased significantly from cycle 1. The sales lead increased from the result of the company's ecosystem expansion focus (Figure 41). However, the other three themes were not prevalent in cycle two. The observations would change in cycle 3 when the Company focus was aggressively on partnership and sales.

### 5.3.4.1.3 – IMPACTS ON SALES IN CYCLE 3

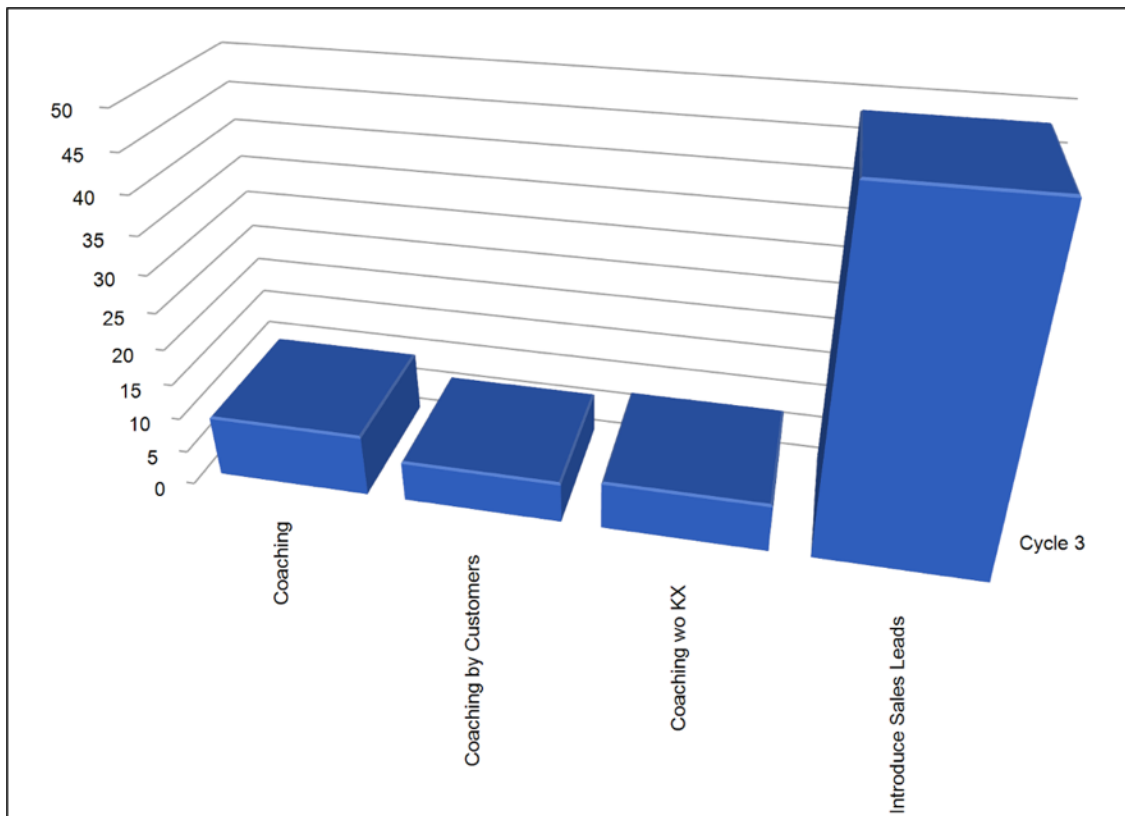


FIGURE 42: IMPACTS ON SALES IN CYCLE 3

In cycle 3, the sales leads were significantly increased from cycle 2 (Figure 42). The agile working supported the partnership, and the sales strategy helped build healthy pipelines for the company. The agile working not only increased sales leads but also increased coaching from internal and external stakeholders. For the internal stakeholders, both executives who had sales context knowledge and those who did not have the context were willing to help with the new prospects and engagements. At the same time, since agile working helped the sales team to respond to customers' requirements better, customers unintentionally gave hints when the proposed solutions were almost meeting the expectation. The coaching by customers implied that sales could gradually recruit customers to become the coach for the deal, which was highly critical in the solution selling approach (Hurdle, 2006).

### 5.3.4.2 – IMPACT ON IMPLEMENTATION

#### 5.3.4.2.1 – IMPACT ON IMPLEMENTATION IN CYCLE 1

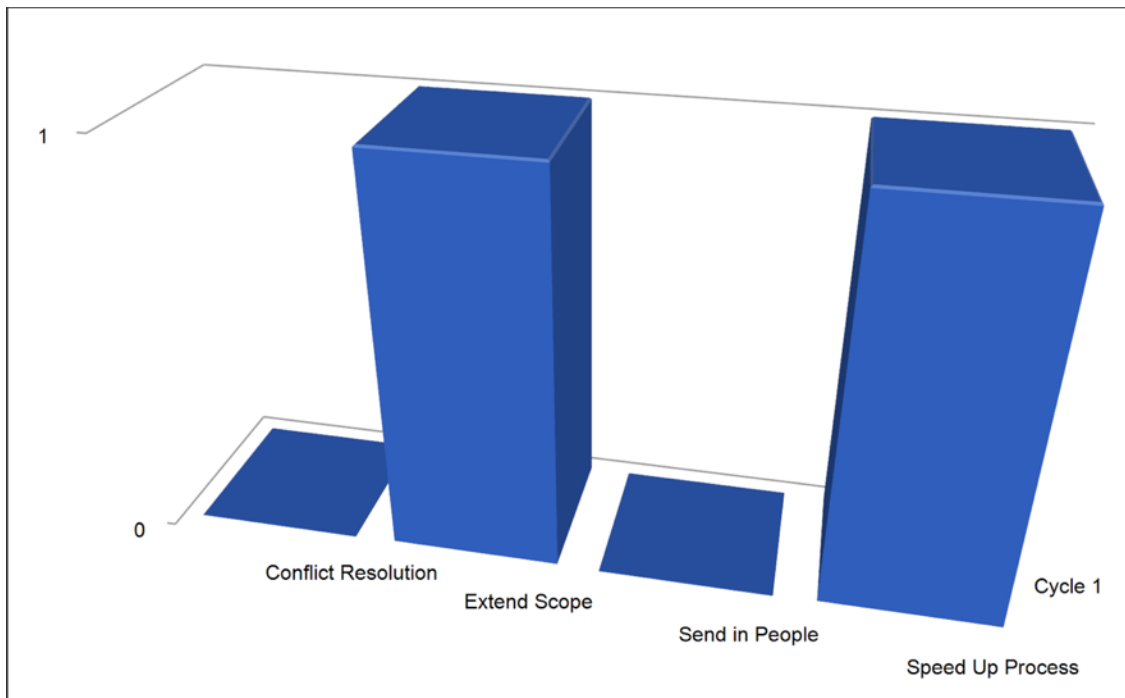


FIGURE 43: IMPACTS ON IMPLEMENTATION IN CYCLE 1

Similarly, the agile working helped setting client expectations during the implementation project (Figure 43). Because of the fixed-fee type of project, it was nearly impossible for a vendor to get an additional scope extension. However, in the project implementation context, the project team could address the potential for scope extension for unplanned and poorly defined project scopes. The scope extension expectation setting made the actual extension negotiation in cycle two easier. The extension expectation allowed the client to start communicating with their management for a possible budget increase. In addition to the extension, the client also helped speed up their approval process to avoid the delay in the project. The fast approval process helped the client manage their budget increment issue and helped the project management team manage the incoming cash flow to the company.

### 5.3.4.2.2 – IMPACT ON IMPLEMENTATION IN CYCLE 2

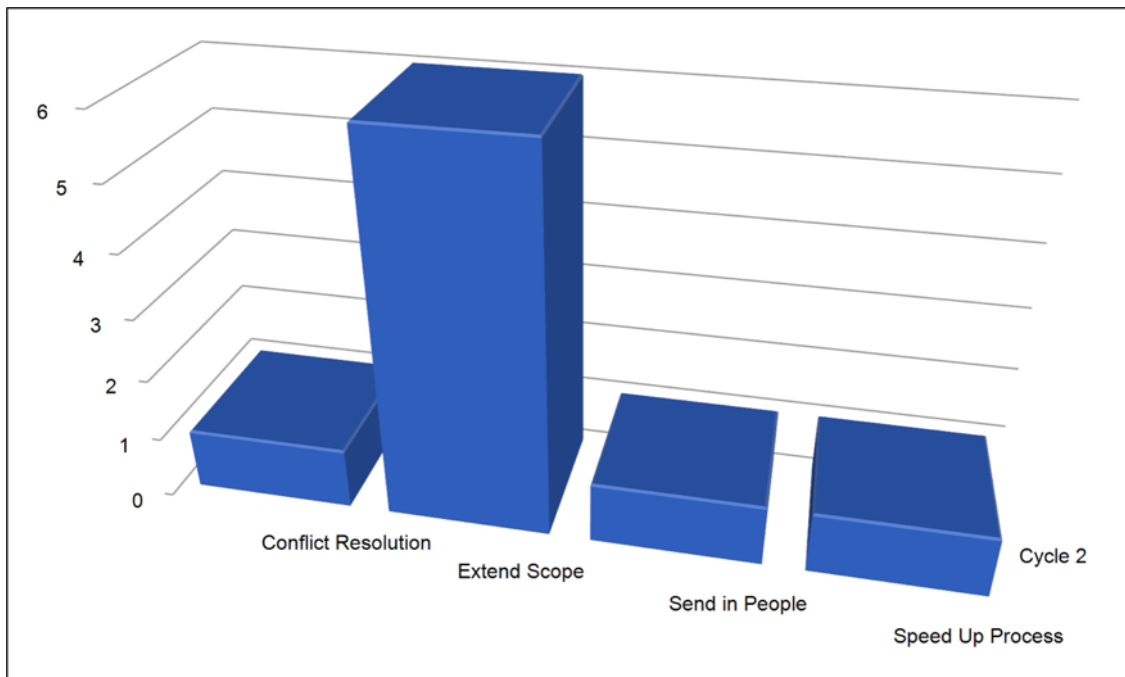


FIGURE 44: IMPACTS ON IMPLEMENTATION IN CYCLE 2

In cycle 2, the focus of the implementation team was to get additional contracts to balance out the overblown scope problem (Figure 44). The project director successfully led the scope extension negotiation with the clients. In cycle two, the project director could agree with the client to issue six change-request contracts, which provided a double-original-contractual value to the company. Client investment and procurement committees approved the additional six contracts at the end of cycle 2. The procurement process and contract signing process would be done in cycle 3. Unfortunately, the lead-time for the procurement, contract signing and invoicing process could take up to three months after the procurement committee approval. The project director still had to continue using an agile working approach to speed up the three processes.

The other significant contribution of agile working to the resource shortage solution was that the project director could ask for client favour to add team members from the client-side without penalty fined to the company. Instead, the client gave additional amendment orders to have the Company hired additional development and charge to the client with a reasonable margin. After the project ended, the Company needed to transfer the developers to become the client's full-time employees; the client could recruit additional developers in advance without impacts on the client's balance sheet. The client had time to request for hiring budget in a year.

### 5.3.4.2.3 – IMPACT ON IMPLEMENTATION IN CYCLE 3

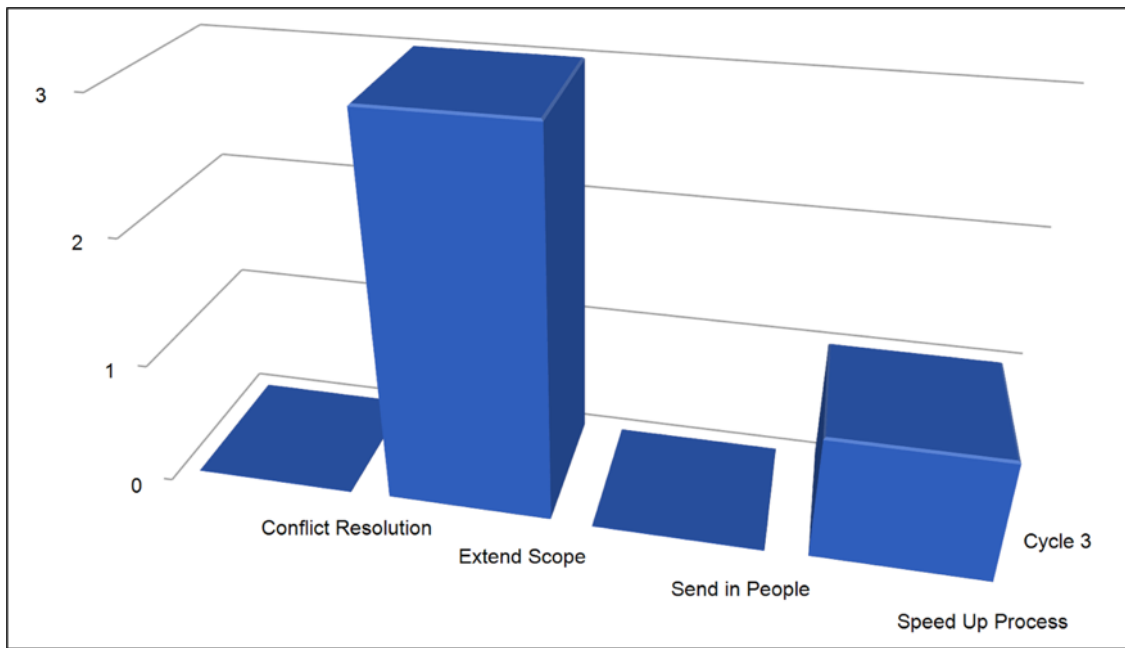


FIGURE 45: IMPACTS ON IMPLEMENTATION IN CYCLE 3

In cycle 3, the procurement and contract signing problems were still the focus of the project director (Figure 45). So, the project director could continuously work with the client in the scope extension contract and speed up the invoicing process. Once the signing and invoicing were done, the project could focus on the implementation activities. The help from the project director helped improving cash flow pressure for the company.

### 5.3.4.3 – IMPACT ON COMMITMENTS

#### 5.3.4.3.1 – IMPACT ON COMMITMENTS IN CYCLE 1

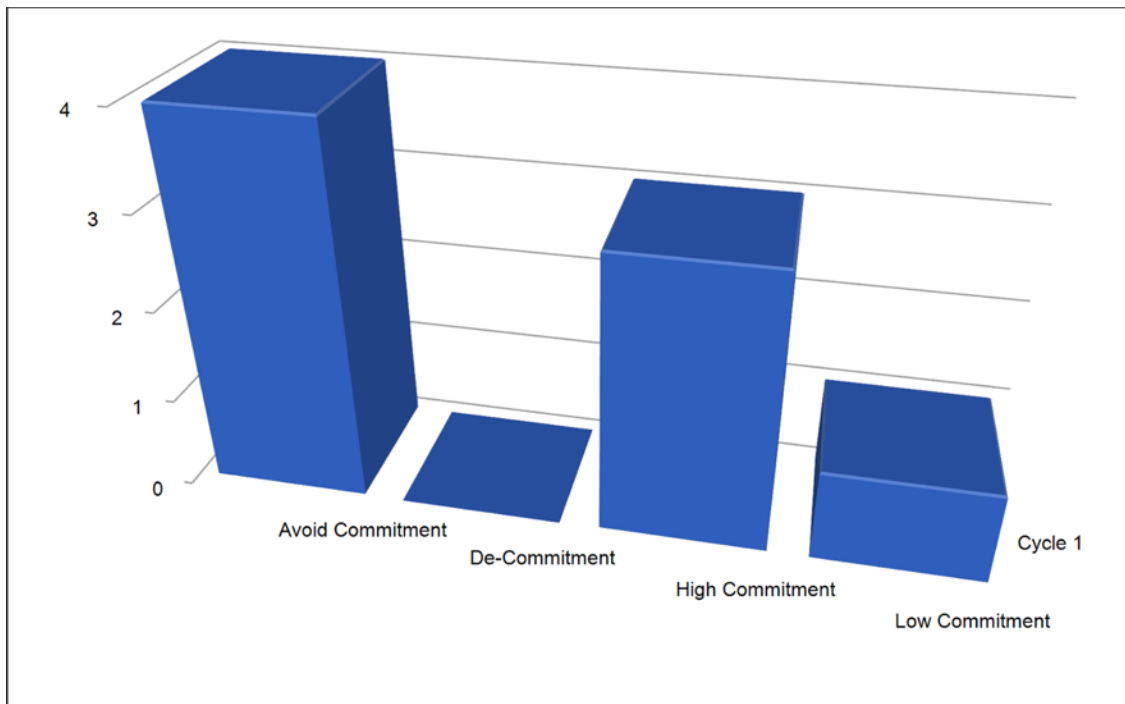


FIGURE 46: IMPACTS ON COMMITMENT IN CYCLE 1

Behaviours expressing commitment to the Company success were observed (Figure 46). There were two groups of behaviours. The first was a high-commitment attitude, and the second was a low commitment attitude. The high commitment group were observed from senior members of the company. For the low commitment, including commitment avoidance, the observations were detected from younger groups of employees. When digging deeper into the coding and the data sources, a particular person avoided commitment consistently across three cycles. However, when a more senior member assigned a lead role to the person, one took accountability for the tasks.

### 5.3.4.3.2 – IMPACT ON COMMITMENTS IN CYCLE 2

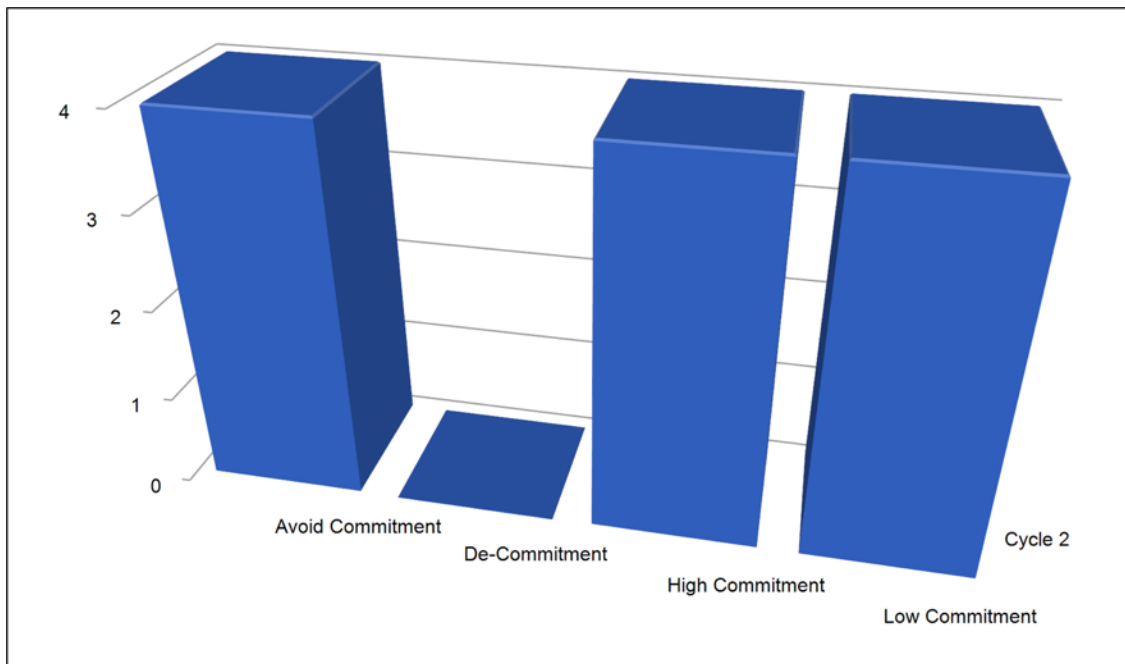


FIGURE 47: IMPACTS ON COMMITMENT IN CYCLE 2

The cash flow and cost control pressures in cycle 2 affected the frustrated and depressed environment of the employees and helped maintain optimistic attitudes to the management (Figure 47). The management still showed a high commitment attitude to the company. However, junior employees started to show a moral problem. Some employees started to look for a new job. We were able to retain some of the employees but with a couple of junior employees. Fortunately, the project could utilise the client project team to fulfil the missing roles. So, the project schedule was not significantly impacted. The project team could still manage the project according to the plan. For the avoid commitment category, the same group of employees still express the avoidance attitude. So, in cycle 3, the management decided to give full responsibility to the employees to manage and deliver their tasks providing regular updates.

### 5.3.4.3.3 – IMPACT ON COMMITMENTS IN CYCLE 3

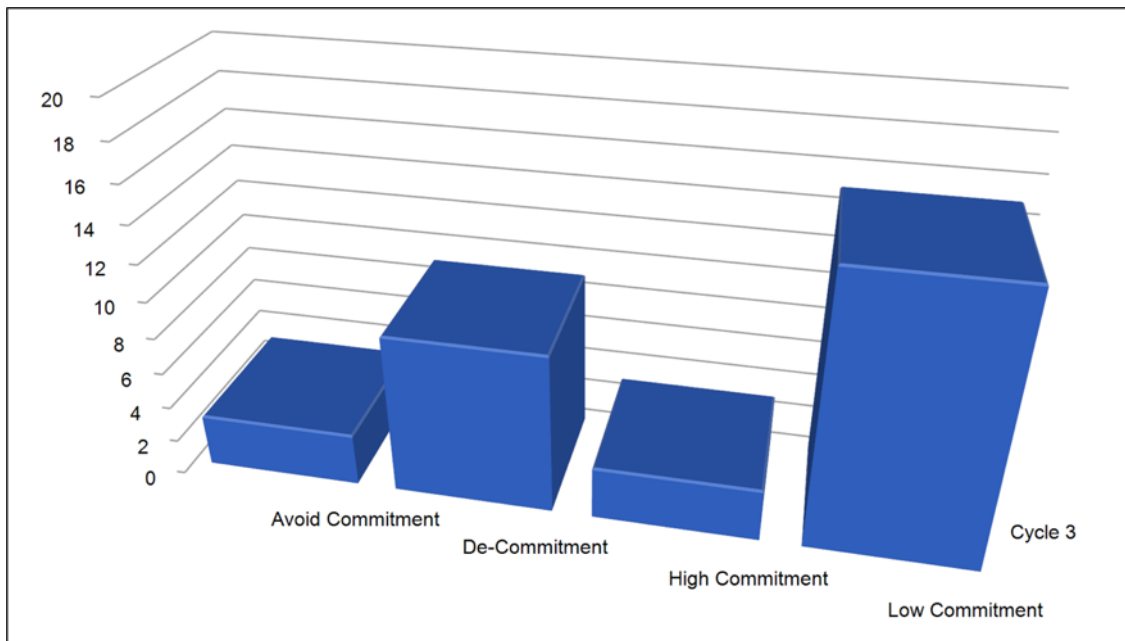


FIGURE 48: IMPACTS ON COMMITMENTS IN CYCLE 3

In cycle three, where the ecosystem of power relation was shifted, reversed observations were observed from cycle 1 and 2. Old power camps reduced and even withdrew their commitments to the company. This phenomenon came from their expected benefits deriving from participating in the Company were reduced. So, they became less participative in company activities (Figure 48). The new group that could increase the power relation in the Company still actively drove the new partnership and sales activities. The dynamic of the power and politic in the company, if not appropriately managed, could hurt the Company culture. However, this phenomenon was expected in the corporate world. From my experience working with big American corporations, when the leader changed, we could expect reorganisation and employee turnover.



#### 5.3.4.4 – IMPACT ON SHARING ATTITUDE

##### 5.3.4.4.1 – IMPACT ON SHARING IN CYCLE 1

The incident of sharing attitude was not observed in the data collection process. This non-observation could be interpreted that during the start-up of the project and the company's early stage, people were adjusting. Neither significant willingness to share nor an unwillingness to share was evident.

##### 5.3.4.4.2 – IMPACT ON SHARING IN CYCLE 2

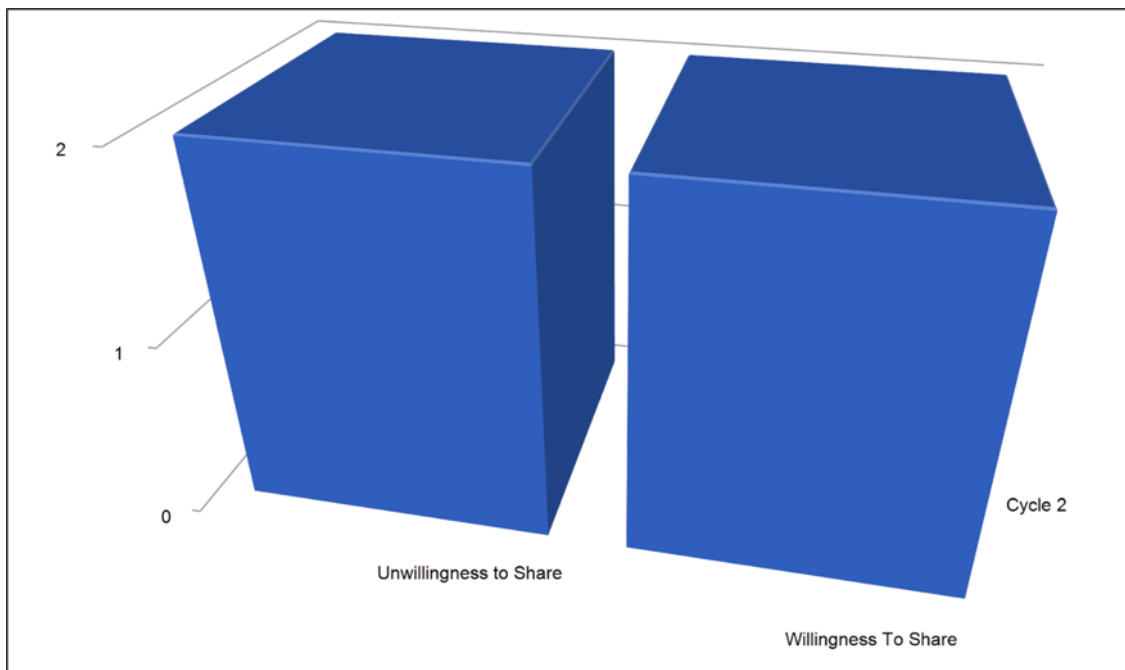
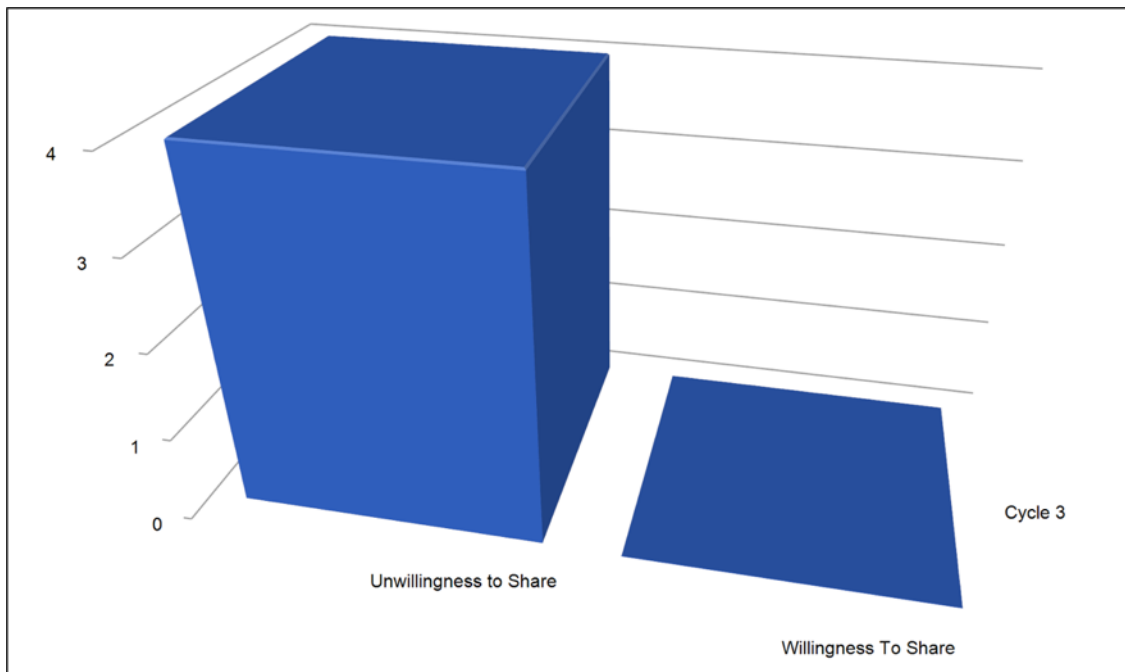


FIGURE 49: IMPACTS ON SHARING IN CYCLE 2

Like the commitment attitude, in cycle 2, we see both willingness and unwillingness to share attitude from employees (Figure 49). Those who got negative impacts from the situation were not willing to take responsibility beyond their current tasks. Those who were motivated by the achievement in the execution of the agile working were willing to share knowledge and help other employees in the company.

### 5.3.4.4.3 – IMPACT ON SHARING IN CYCLE 3



**FIGURE 50: IMPACTS ON SHARING IN CYCLE 3**

The observations were reversed in cycle three, where the power relation was shifted. In line with the commitment attitude, employees expressed a moral problem and refused to share their learning and knowledge (Figure 50). As those employees realised the loss of their power relation, they held on to their knowledge, hoping to maintain their status quo and negotiation power in the company.

## 5.4 – PART THREE: LEARNINGS FROM THE FINDINGS

Part Three addresses five prominent learnings from the implementation of agile working in the organisation. The first three benefits from agile working: increased reflective practices, increased sales lead, and improved project implementation difficulties. The last two represent the consequences of the dynamic of agile working: lower commitment and reduced sharing attitude.

### 5.4.1 – LESSON 1: AGILE WORKING INCREASED REFLECTIVE PRACTICES

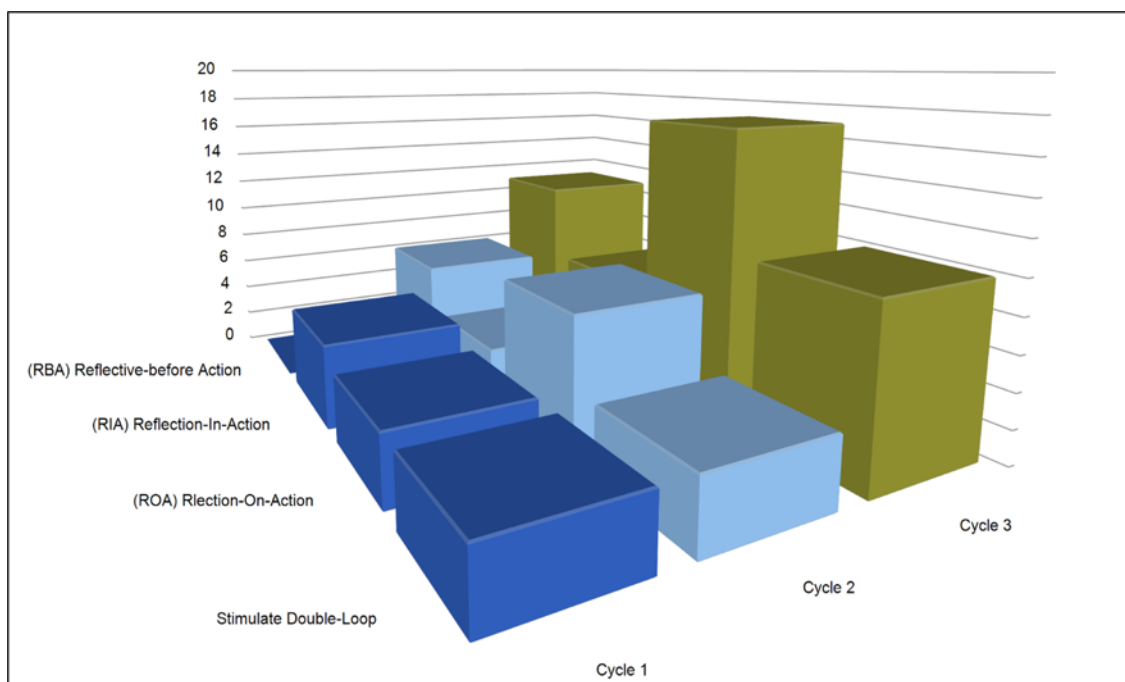


FIGURE 51: REFLECTIVE PRACTICES ACROSS 3 CYCLES

Over the three cycles, agile working promoted the reflective practices in the company (Figure 51). Reflection-on-action was the most significant improvement, followed by reflection-before-action and the practice of inquiry that stimulated double-loop thinking. However, the reflection-in-action had improved at a lower rate. Enhancement of the Company reflective practices was one of the main research questions for the action research thesis. The improvement in reflective practices through agile working implementation satisfies the first research question of the thesis.

#### 5.4.2 – LESSON 2: AGILE WORKING INCREASED SALES LEADS

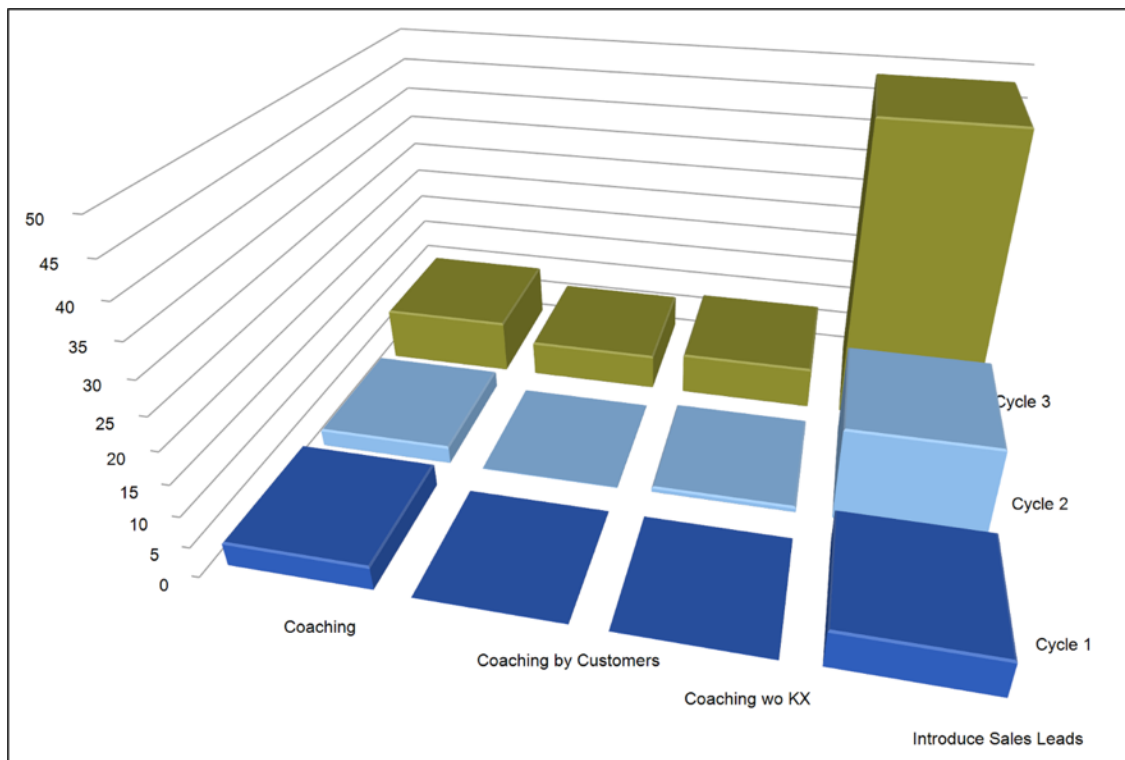


FIGURE 52: IMPACTS ON SALES ACROSS 3 CYCLES

The agile working had significantly helped with sales lead development (Figure 52). In cycle 3, when the Company focus was on ecosystem expansion, the sales lead increased tremendously. The jump came from helps from all networks and management team had. We discussed potential opportunities to build and any problem and reflection from earlier week sales activities throughout the weekly agile sales meeting. Most executives actively participated in the discussion. The supports came in several forms. We discussed the network of relationship that all members in the meeting had. Network identifying discussion allowed executives to recall and reflect whether their connections were real and active. If the connections were not real, we moved on. If the connections were real but not active, we defined actions to make the connections active. Then we moved on to the opportunity building step. If the connections still in an active relationship, we identified going-in propositions and leveraged the relationships.

The agile working also initiated experience sharing and coaching. The management team shared experiences and coached the sales team in approaching each deal. All executives gave advice no matter the executives had direct experience in the contexts of the sales. If the executives had direct experiences, the discussion would be toward step to approach the deals.

If the executives did not know the deals, the discussion challenged sales assumptions and reapplied the unrelated experiences to the sales context.

The agile working also provided frequent discussion with customers. The active interactions between the sales team and customers had led to informal coaching from customers. The active interactions with the customers turn regular sales to become solution and relationship sales. Customers also viewed that the Company was serious about the deals.

### 5.4.3 – LESSON 3: AGILE WORKING HELPED IMPLEMENTATION DIFFICULTIES

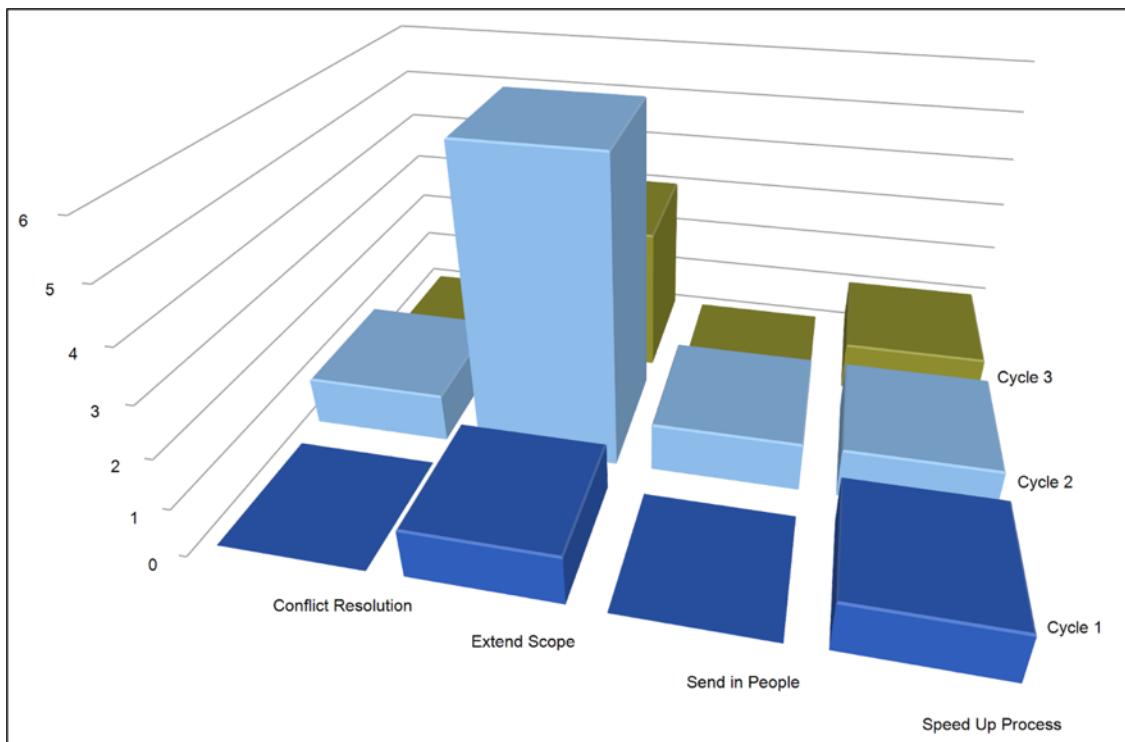


FIGURE 53: IMPACTS ON IMPLEMENTATION ACROSS 3 CYCLES

Agile working initiated customer help in scope extension in the project (Figure 53). The scope extension gave opportunities for the Company to coexist with the client ecosystem. In a regular fixed-fee project, vendors had to satisfy the scope listed in the contracts. Usually, the project scopes could not be listed as detailed as in actual implementation. So, scope disputes were typical in any implementation. Most of the time, in Thailand, vendors must satisfy customer demands. The project delay and cost overrun were typical. So, most consulting firms added buffers for the expected scope problem. However, in the case of the company, customers allowed the Company to use change requests as the extension tool.

In some cases, customers helped write up the change requests to avoid overlapping scopes in earlier budgets approved. From the scope discussion activities, I learned that customers usually prepare ambiguous scopes to take the benefits of the doubt to their advantage. In our case, customers treated us as the partner of choices. So long term relationship played an important role. Customers treated the scope extension as one of the leverages to manage the relationship with the company. The Company could get a long-term relationship with the client, thus becoming a vendor of choices.

In addition to scope extension, despite the company's responsibility to fulfil required resources, customers also even helped send in their people to the project team to help with the project during the resource shortage problem. Usually, with other global vendors, it was the vendors' responsibility to fulfil the resources.

Both increased sales leads and impact in the implementation imply that the Company can survive in an ecosystem business environment. The effect in implementation allows the Company to co-evolve with the existing client's ecosystem. Besides, the increasing leads enabled the Company to participate in other client's ecosystems. However, the study requires more time to observe the impact of agile working in a new ecosystem. Despite, the effect in implementation helps us answer research question number 3, which regards to client's ecosystem coevolution

#### 5.4.4 – LESSON 4: DISRUPTED POWER RELATION ECOSYSTEM DECREASED COMMITMENTS

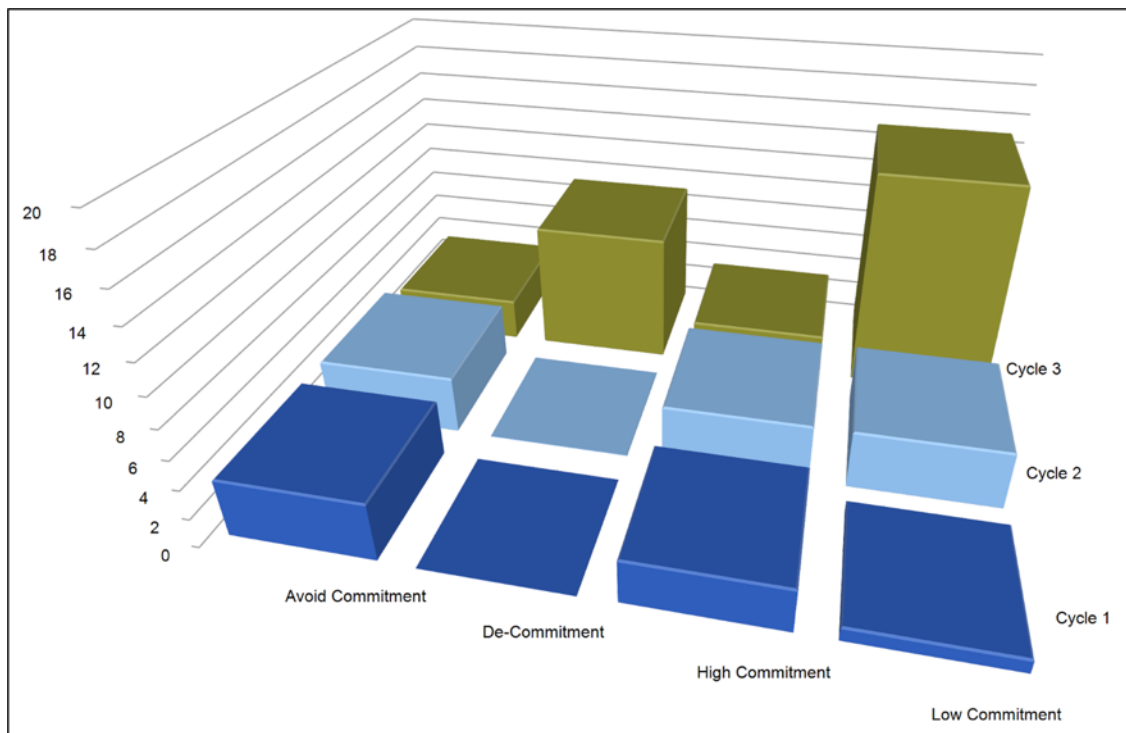


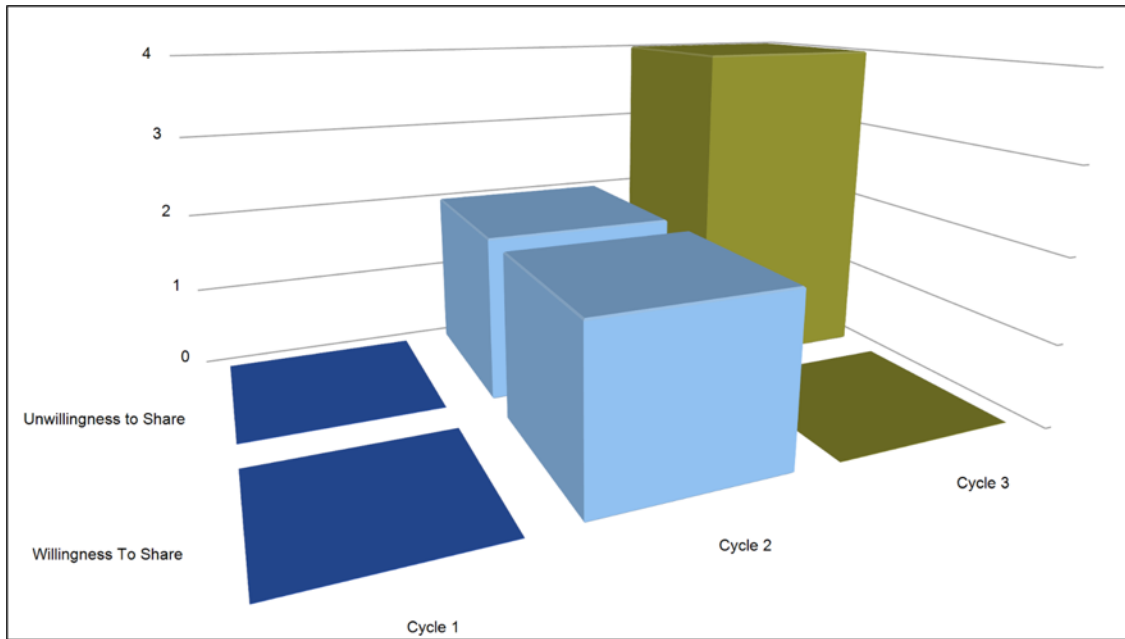
FIGURE 54: IMPACTS ON COMMITMENT ACROSS 3 CYCLES

The dynamic of power relation shift impacted commitment levels among employees (Figure 54). Some employees showed a lower commitment to the work. In some situation, de-commitment could be observed. It was apparent in cycle three that the low level of commitment was prevalent in the observation. The main differences between cycle three and the other two cycles were that the Company focus shifted away from existing market application toward expanding other ecosystems in cycle three. What happened was that the increase in leads led to diversify products that the Company needed to offer. So, the degree of importance of the original products that the development director's control was reduced. In other words, the negotiation power within the Company shifted away from the development and implementation director. When incorporating the dynamic of emotions, it was coincidentally that frustrations, uncertain and lost face emotions raised. The power shift created a negative commitment trend for the company. The declining commitment was linked to motivation factors, especially the personal benefit factor. Because the Company was established by aligning the personal benefits of all founders, any situation that negatively impacted expected personal benefits reduced the founders' commitment to the company. For example, the development director, a retired executive, had hoped to make retirement money from his software license. Once the power was shifted unfavourably, his share of license

income reduced. So, he fought to maintain his status quo in cycle 2. However, in cycle 3, once the Company direction changed, he reduced his commitment to participate in activities that did not benefit his software license.

#### 5.4.5 – LESSON 5: DISRUPTED POWER RELATION ECOSYSTEM IMPACTED SHARING

##### ATTITUDES



**FIGURE 55: IMPACTS ON SHARING ATTITUDE ACROSS 3 CYCLES**

The lower commitment situation in cycle three aligned with the observed willingness to share among executives (Figure 55). In cycle 3, executives from development teams are reluctant to share core development knowledge with the rest of the non-development others. In contrast with the practices in cycle 1 and 2, when there were errors in the software in cycle 3, instead of having the project team handle the problems, the development team took charges without explaining how they solved them.

#### **5.5 – SUMMARY OF CHAPTER 5**

Chapter 5 discussed the findings from the scholar point of views. Participants observation approaches were used to collect data through participant observations and Netnography. Data coding, transforming, and analysing was conducted through the NVIVO qualitative data analysis software. The results were analysed and evaluated. The scholar view extended the understanding in Chapter 4. Learning from the scholar point of views help the more in-depth understanding of the action research. Chapter 5 provides insights into both the positive and



negative outcomes of the research. Positive outcomes included increased reflective practices, increased sales leads, and increased customer support during the implementation. The negative consequences were declines in commitments and willingness to share among the employees. In Chapter 6, the report will conclude the findings from the scholar-practitioner point of view and reflections on the learning from the action research. The conclusion will lead to reflections on the research objectives and questions, as mentioned in chapter 1.

## CHAPTER 6 – CONCLUSION AND REFLECTION

### 6.1 – INTRODUCTION TO CHAPTER 6

This chapter reflects on my learning which focuses on two aspects: the action research thesis and learning. Reflection on the action research anchors around the research questions. The action research aspect reflects the results of the actions.

The second aspect of reflection focuses on a deeper reflection on learning from the action research thesis. The deeper reflection utilises three perspectives of learning. The first and second perspective include personal and organisational learnings. The third perspective on learning is reflecting upon the third person learning. All the three perspectives are reflected along with adaptive and generative learning, which could be referred to as single-loop and double-loop learning.

#### Learning Framework Revisited

Both aspects of reflections utilised Mezirow's transformative learning to critical reflections: content, process and premise reflections (Coghlan and Brannick, 2014; Kitchenham, 2008). Content reflection is to understand what happened. Process reflection is to investigate how things happened. In contrast, premise reflection deeply critiques the underlying assumptions (Coghlan and Brannick, 2014). Kitchenham (2008) further elaborates that, by focusing on reflection, content reflection allows a person to learn to do things better. For the process of reflection, a person starts to relate a situation with unveiling factors, which helps a person transform a situation's meaning. Lastly, a person can step back for the premise reflection and see a big picture view and a new perspective. The three reflections are the foundation of meta-learning, where all first, second and third person learnings are formed.

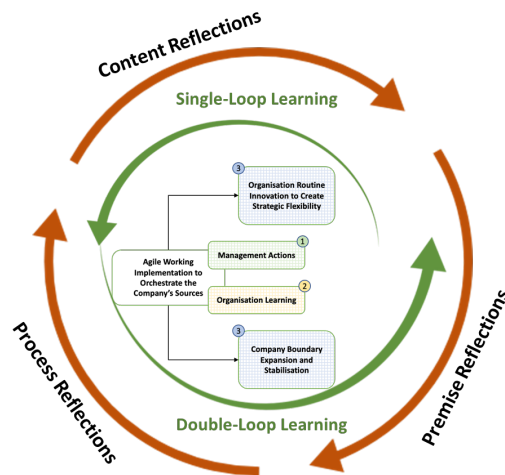


FIGURE 56: LEARNING FRAMEWORK REVISITED

The three reflections can be linked with Argyris and Schon (1978) concept of single and double-loop learning (Figure 56). Content reflection starts with a focus on a situation. Process reflection expands the focus from a situation to include related factors. Both reflections can be mapped to single-loop learning, where the focus is on a situation. However, premise reflection initiates a person to think beyond the existing assumptions of a situation. The reframing of a situation can be mapped to double-loop learning (Nutley and Davies, 2001). Single-loop and double-loop learning were used to derive first, second and third-person learning in section 6.3-6.5.

The Chapter kicks off with reflections on the learning from the three research questions in section 6.2. Section 6.2 covers learning from using agile working to introduce the reflective practice to the organisation, integrate the Company's cultures and manage the Company's ecosystem business. Section 6.3 to 6.5 reflect upon personal learning, organisational learning and meta-learning from the action research thesis. Lastly, the chapter concludes with the research limitations and recommendations for future research.

## 6.2 – REFLECTION ON THE ACTION RESEARCH QUESTIONS

Looking back to the starting point of the action research thesis, I questioned how to use the action research thesis in the Company. Firstly, by implementing agile working, I would like to improve the reflective practices in the Company. Secondly, it was also hoped that reflective practices impacted the culture of the Company. By impacting the culture, I assumed that several cultures inherited from several leaders could be fused and integrated. Thirdly, reflective practices also helped the company become a member of the client's ecosystem. So,

the Company could co-evolve with the client in the long run. To co-evolve in the long run meant that the Company would be in operations and grow along with the client's ecosystem.

In part 6.2, I reflect on how agile working answered the three research questions: reflective practices, culture integration and ecosystem coevolution.

### 6.2.1 – REFLECTION ON REFLECTIVE PRACTICES

Part 6.2.1 discusses the reflective practices in the unique environment of my agile work settings. Agile work was applied to a client-facing software implementation environment instead of an internal software development environment (Bunyakiati and Surachaikulwattana, 2016).

Two characteristics that made agile working unique were that agile working in the implementation project did not happen within the organisation but rather within the Company's control projects in the client organisation environment (George et al., 2018). Secondly, the agile work was influenced by power relation turbulence during the project implementation because of the project environment.

In contrast to my agile working environment setting, other agile studies assumed agile engineering methods within organisations (Azanha et al., 2017). Agile principles focus on people and their interactions to deliver high-quality work for their customers. The principles help organisations handle changes in customer demand and the dynamic of competition (Denning, 2016b). Agile software engineering projects prioritise functions according to customer demands. The functions will then be fed into a short-controlled development cycle. Functions are designed, developed and tested within a short cycle, usually over a 2-week cycle. Consequently, a company can release a new function to users every two weeks. Agile solutions must be designed to facilitate the cycle releases so that each function must be self-contained and can be released independently (O'Connor et al., 2017).

Because the dynamic nature of agile changes how an organisation operates, the agile approach is primarily deployed within a software engineering organisation. Even though deploying agile works inside organisations, most companies find deployment difficult (Bunyakiati and Surachaikulwattana, 2016). Because the agile work implementation requires "a suitable organisational culture" (Vinekar et al., 2006, p. 40), the implementation requires changes in traditional organisation norms. The changes in the way people work impacts agile work

implementation difficulties. So, most companies focus on using agile approaches only in the boundary of organisations' control.

In my project setting, the client would like to benefit both worlds: traditional and agile. The client used the traditional path-dependent implementation approach as the master project plan but used an agile approach during the requirement phase. The agile work was used in an on-site project at the client organisation. While applying the agile approach during the requirement phase, the client used a traditional approach after the requirement identifications. The client could take advantage of flexible requirements. While the client forced us to accept the fixed-fee contract for the budget approval process, the client could add additional scopes during the agile requirement identification phase. However, for our organisation, we had to work under increased uncertainty. The uncertain environment made our project team rely on reflections to guess the dynamic in the client organisation. The more profound understanding of the client organisation helped the team adjust their actions to the increased project scope. Therefore, the team reflected beyond single-loop learning. The single-loop reflection, in this case, referred to how the team handle both sales and project management problems. While the complexity of the project environment forced the team to think beyond the current problems, they needed to think underneath the surface of the problems. For example, as the client defined gaps in the project implementation governance, instead of closing all the gaps, the team reflected and renegotiated with the client management to change their traditional project budget approval norm to match the agile project. The changes in how the client organisation worked implied inefficiency in management practices. However, the reflective issue resolution impacted the self-esteem of some client management team. So, the change was not likely to happen when the client could not accommodate the request, the client compromised by extending the project's scope.

The double-loop thinking helped our project team to challenge the client's current practices in the budgeting process. For example, during a regular management meeting, the project director presented a potential delay. The management challenged the project director on the root causes of the delay. The meeting initiated a management team to rethink why the client acted so and why the project delay was the project team's decision. We found out that the real problem lay in the client investment process. So, the project director discussed this with the client's project sponsor. The director made the sponsor understand the flaws in the investment decision. The challenge to the investment process had put the client management team in an awkward position. Thus, the project team successfully altered the power relation between our project

team and the client project team. The power relation shift benefited our project team by reducing pressure from the client and increasing cooperation from the client in resolving the project issues. Additionally, double-loop learning helped the project director to assess situations proactively.

The agile working in a vendor-customer environment helped our Company reframe our negotiation strategy with client management continuously. The power relation shift resulting from the double-loop learning changed our problem solving from a fire-fighting mode to a proactive mode. The reflective practices under the turbulent environment as in the Company context made power relations very dynamic. In a dynamic power relation environment, the team must handle the uncertainty through reflective practices. The reflective agile working in a dynamic power relation environment led to insight and meta-learning, further discussed in part 6.3.

#### 6.2.2 – REFLECTION ON ORGANISATION CULTURE INTEGRATION

In terms of cultural integration, the Company did not integrate different cultures with co-founders at the company's start. Instead, agile work stimulated interaction and co-evolved the Company culture along with the power relation dynamics. In the beginning, the culture was a bit conservative. The Company would like to create an eager-to-please-the-client culture. All sales and implementation efforts were integrated into account management activities. The customer-pleasing culture had put the Company in a disadvantaged position. It was disadvantaged in that the Company was forced to accept the moving scopes with the fixed-fee contracts. From the customer's point of view, the contracts created significant benefits. The contracts helped the client implement projects with meagre costs providing that the Company allocated highly experienced resources into the projects. Also, the client might view the projects as on-the-job training from our Company. Because the Company was comprised of highly experienced retired executives, the executives became superb coaches to the junior members of the client team. This was why the client investment and procurement committees quickly approved the projects. These core system replacement projects typically required a selective bidding process from vendors with profits in the last three years.

However, because of the disadvantaged contracts, the client abused the projects. Instead of implementing the projects as on-the-job coaching, the client's project team members abused the implementation governance by forcing the company to do all the project tasks. Furthermore, the client's users took the opportunity to add as many scopes as possible. The

projects inevitably became troubled projects. The troubled projects forced us to find alternatives to the problems. The ecosystem extension strategy was executed in cycle 2. The project team had to control implementation tightly. Hence, customer-pleasing culture became a controlling culture. The controlling culture shifted the power relation from the development team to the project management team.

The shifting away from the account management approach broadened the risk-taking attitude of the Company. When the sales team introduced the potential to expand the ecosystem further to a partnership model, our management decided to take higher risks by signing a partnership contract with a long-time vendor in Thailand. The result of the partnership led the Company direction toward a sales organisation. The Company focused on pipeline management while minimally maintaining the existing relationship with the client. So the culture had evolved from control to sales culture. The nature of the sales culture involved a risk-taking attitude. The new culture significantly frustrated the risk-averse co-founders and developers.

The agile working thesis did not integrate cultures inherited from the different backgrounds of the co-founders. However, the agile working initiative helped the Company's culture to evolve to match the Company focus. One interesting observation was about the influence of power relation in the organisation. The culture evolution was observed with the changing dynamic of power dominance in the Company. The power dynamic and agile work will be further discussed in the reflection on the learning part of the Chapter.

### 6.2.3 – REFLECTION ON ECOSYSTEM COEVOLUTION

At the beginning of our company establishment, we set the Company objective to become a member of the bank's ecosystem. So, we searched for potential gaps in the client's ecosystem. What we found was the missing link in knowledge and budgeting flexibility. We positioned our Company as a company that can provide flexible knowledge resources to the bank. Our strategy worked well; we become the vendor of choice for the bank in a supplier-finance area.

During the data analysis period, I looked back and reflected upon the achievement we had from the action research. On the one hand, the action research project looked as if we were successful in the ecosystem build with the bank because we could extend the project scope and get additional change requests after the project finished. On the other hand, we could have done better in managing the ecosystem build. The difference came from how we interpreted the ecosystem.

We interpreted an ecosystem as a partner relationship between an owner of the ecosystem and its trusted partners. From the assumption, we developed our discussions and actions along with the relationship. We assigned the account management team to the relationship. The account management team worked well in the situation. However, we faced other cash flow gaps during the end of the leading project and the start of the additional change request works.

Additionally, we had some key performance indicators that conflicted with those of the client. Our company performance was on revenues and margins. The two indicators were costs to the clients. So, our KPIs and the client's KPI's had a reverse relationship. In this case, ecosystem coevolution would be complex. To maximise the KPIs, the client needed to squeeze margins out of our Company. The way to do so started with a bidding process. The bidding forced us to reduce prices and margins during a proposal submission process. After we passed a technical evaluation, we had to go through tough price negotiation. While the client had a relatively high-power position, we had only a slim margin. This situation was not good for the Company in the long run. When the client can bridge the knowledge gap, our value and power will be gone.

If I could turn back the clock, I could have interpreted the ecosystem differently. Instead of viewing the relationship as a vendor-customer status, I could have gone through an investment pitch. We could have made our pitch to the client such that the client invested money, as venture capital (VC), into our Company. I knew the VC possibility after I shifted my focus to an open banking initiative. If we were to become the client VC's portfolio member, the client had an obligation to utilise our capabilities in the operations. So, the Company could have become an integrated ecosystem member.

So, I do not consider that the action research successfully helped the company co-evolve with the client ecosystem. Instead, because of my tacit assumption in the ecosystem interpretation, the action research helped evolve the Company away from the client's ecosystem to a new ecosystem. It was an evolution of the Company survival strategy. The increase in sales also supported the evolution phenomenon leads also supporting the evolution picture of the Company. All of the sales leads were not from the client. The Company did not co-evolve along with the client but evolve into a new ecosystem direction.

I also reflected further as to why I missed the ecosystem interpretation. We worked in a fire-fighter mode because of the tensions between the project implementation problems and working capital-related problems. So, we selectively screened out the potential to go for the



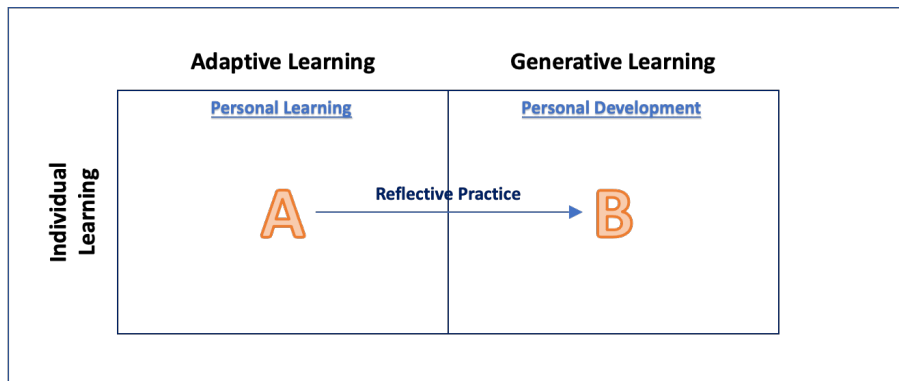
venture capital approach. We had no bandwidth left for the VC pitching activities. Also, even though we would like to go for the VC route, we did not have cash and resources to accommodate the VC possibility. So, the reflective practices helped select the most optimum actions in a context at a time.

### 6.3 – AGILE WORKING AS A PERSONAL DEVELOPMENT

Section 6.3 to 6.5 will be framed around two aspects of learning: single-loop and double-loop learning. Nutley and Davies (2001) refer to single-loop learning as adaptive learning. The adaptive learning concept assumes a cybernetics principle of self-regulating system thinking. In adaptive learning, a person uses single-loop learning for negative feedback to adjust one's responses to the feedback. One adapts one action from feedback signals. Negative feedback could become negative feedback only when the feedback is stabilised as the norm of a system. Thus, standardised feedback comes from repeatable assumptions, or tacit knowledge, that govern a system. The adaptive learning mode helps a person and an organisation apply tacit knowledge to solve a problem or manage a situation.

In contrast, complex generative learning requires a redefinition of norms or assumptions (Nutley and Davies, 2001). A more in-depth inquiry toward assumptions of a situation is defined by Schön (2016) as double-loop learning. Consequently, adaptive learning could be developed into generative learning through reflective practices to investigate the framing of a situation.

Aspinwall (1996) used four kinds of learning to elaborate on individual learning and collaborative learning. Firstly, for a person to learn, one must acquire knowledge. This means learning about things, theories and facts. Secondly, the acquired knowledge is needed to develop skills and competencies to do things effectively and efficiently. Thirdly, one could maximise one's potential through personal development. The three kinds of learning represent a personal learning hierarchy. The last part of the learning related to how people do things collaboratively. The personal learning aspect covers the three kinds of learning, while collaborative learning will be discussed in the following section.



**FIGURE 57: FROM PERSONAL LEARNING TO DEVELOPMENT**

Two perspectives of learning can be synthesised into a one-by-two matrix, as in Figure 57. Block A, referred to as personal learning, indicates a learning environment where a person uses single-loop learning. In block A, a person learns about things and learn to do things in an existing context. Because basic learning is based on assumptions, acquiring knowledge and using the acquired knowledge is in the block. However, if a person uses reflective practices to learn through double-loop learning, the type of learning called personal development occurs (Nutley and Davies, 2001). Double-loop learning helps to maximise the full potential of oneself. Learning in block B is referred to as personal development.

My reflective practices during my daily reflective journal write up, and the research activities could be visualised in Figure 57 as an arrow from block A to block B. The reflective practices helped me to develop my doctoral practitioner potential. The personal development helped me to understand who I was as a practitioner and as a researcher. As a practitioner, I learned to reflect upon root causes of organisation problems, dynamics of interactions among team members, motivations of the interactions, power relations in the organisation, potential sales and relationship evolution in ecosystems in which we were participating. As a researcher, I learned to reflect upon selecting the research questions, applying appropriated data collection methods, utilising data analysis approaches and deriving evaluations of the finding.

Refer to Chapter 3 in section 3.8, the double-loop learning initiated by agile working has evolved the management actions into management development (Figure 58). Management actions in the Figure can be referred to as personal learning in the Figure above. So the learning from the action research helps extend the idea of dynamic capabilities' foundation beyond management actions to management development or personal development (Foss and Saebi, 2015).

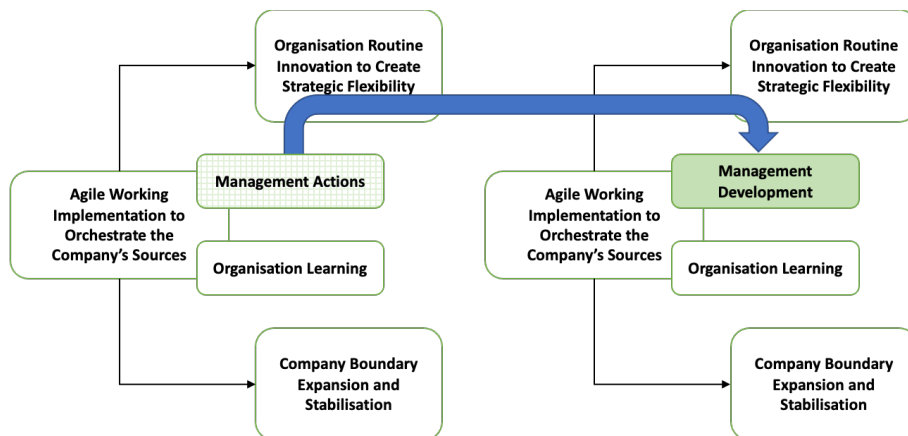


FIGURE 58: PERSONAL DEVELOPMENT IN AGILE WORKING

#### 6.4 – AGILE WORKING AS AN ORGANISATIONAL DEVELOPMENT

Collaborative learning is the collective actions that people in an organisation do together. Aspinwall (1996) argued that collaborative learning was the foundation of a learning organisation. However, Aspinwall (1996) did not elaborate on how personal development was achieved through single-loop learning or double-loop learning. The other element that he assumed in his article was that collaborative learning helped the organisation learn more than the sum of personal learning.

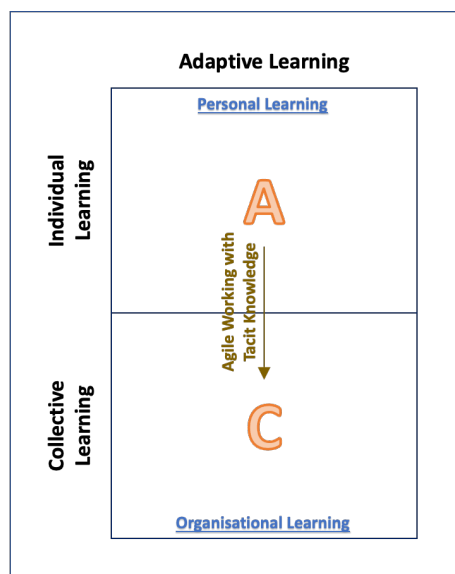
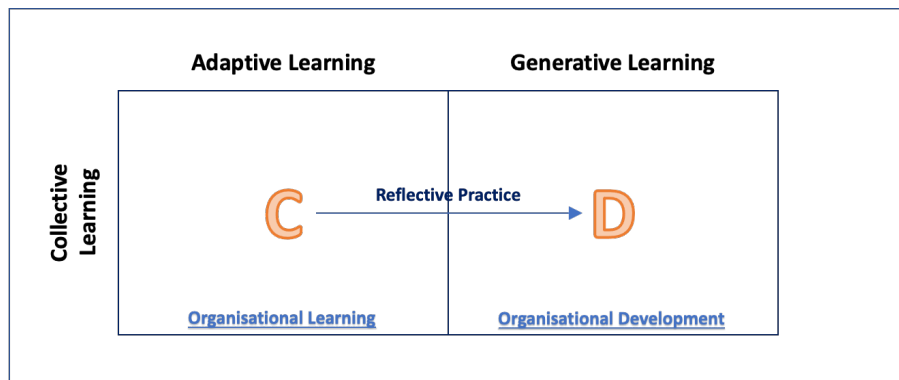


FIGURE 59: FROM PERSONAL TO COLLABORATIVE LEARNING

There were several observations, especially in cycle 1, that the agile working was not incorporating many reflective practices because the Company was in a relatively stable environment. Our team used agile working with a little reflection on our tacit knowledge. Agile working focused on day-to-day operations in the integrated account management environment. I visualised the learning as in the arrow from A to C (Figure 59). The arrow represented the agile working within our tacit knowledge assumptions.

In C (Figure 60), when people in an organisation do things collaboratively, within a particular norm and set of assumptions, collaborative learning leads to organisational learning. Organisational learning in C could come from collaborative learning for those who use an adaptive approach. Organisation norms enforce the dominant usage of adaptive learning. People who fully develop their potential find a generative organisation learning challenging.



**FIGURE 60: FROM ORGANISATIONAL LEARNING TO DEVELOPMENT**

In D, organisational learning occurs in a situation where company norms are changing. So, people need to use reflective practices to reframe situations and create new norms. The double-loop learning helps transform organisational learning into organisational development in D. However, once the new norms are stabilised, organisational learning moves from D to C.

Similarly, the double-loop learning initiated by agile working has evolved organisation learning into organisation development (Figure 61). So the learning from the action research helps extend the idea of dynamic capabilities' foundation beyond organisation learning to organisation development (Foss and Saebi, 2015).

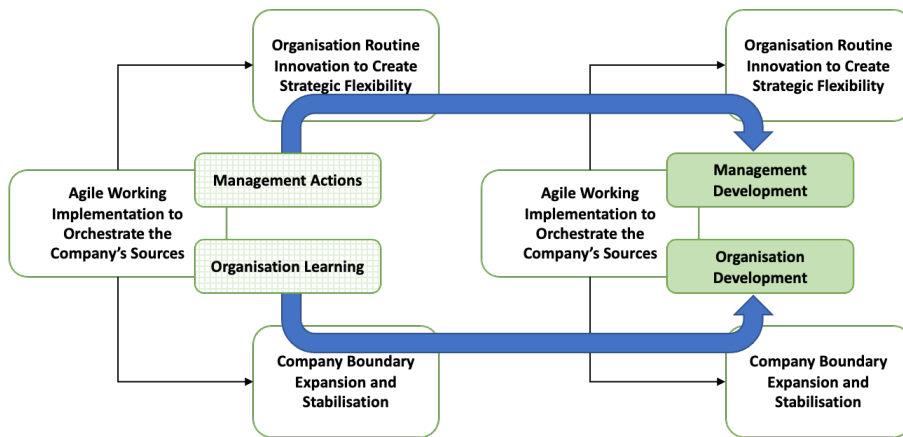


FIGURE 61: ORGANISATIONAL DEVELOPMENT IN AGILE WORKING

### 6.5 – AGILE WORKING AS A META-LEARNING

The learning from sections 6.3 and 6.4 can be synthesised into an integrated learning framework (Figure 62). In the thesis, agile working created the collaborative mechanism making people interacted. Interactions in agile working helped the Company to solve organisation problems. I mapped the findings into the learning matrix.

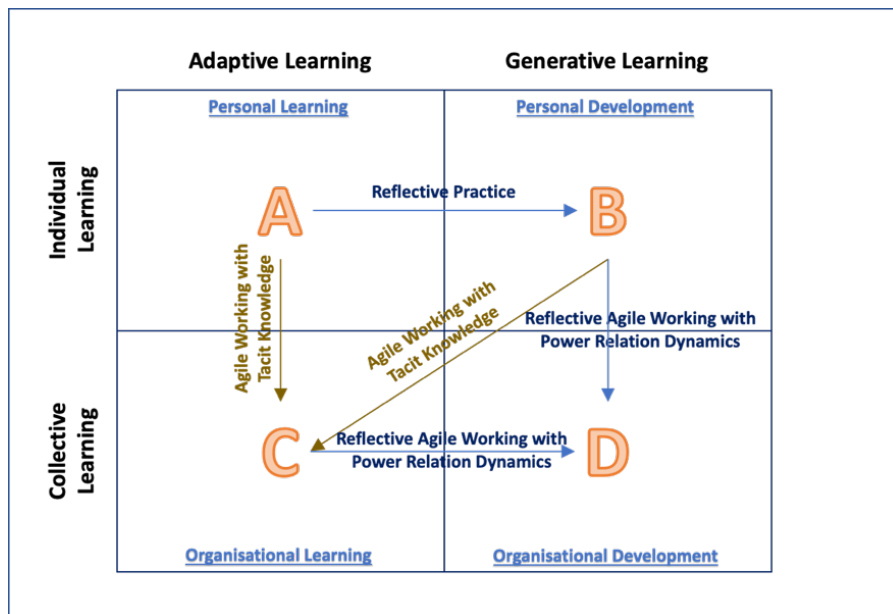


FIGURE 62: INTEGRATED LEARNING FRAMEWORK

In addition to the learning mentioned in part 6.3 and 6.4, the learning could happen when people used reflective practices but did not want to challenge the group norm as in the arrow from quadrant B to quadrant C. The main reason we used agile working without challenging underlying assumptions was the stability of our working environment.

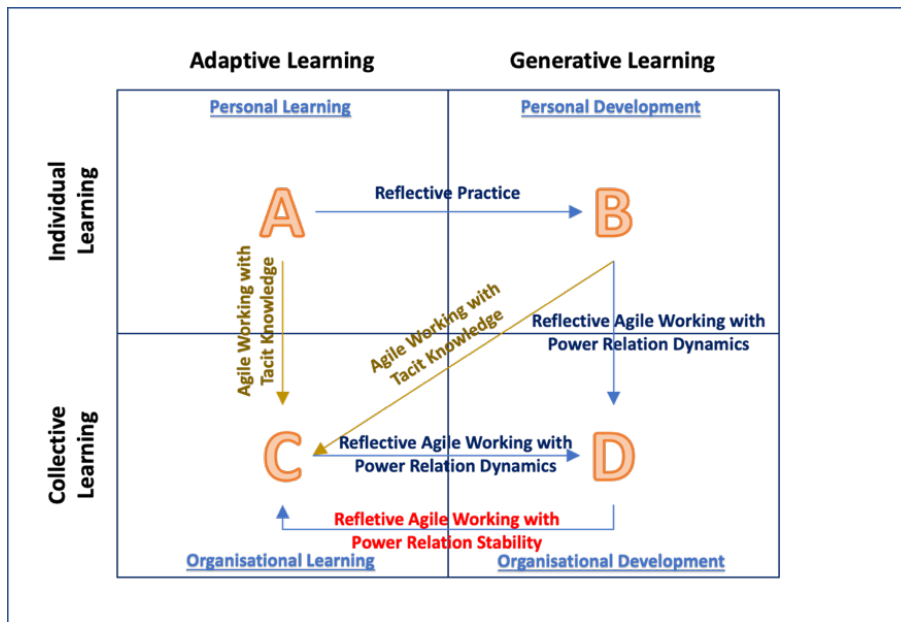


FIGURE 63: POWER RELATION AND ORGANISATIONAL DEVELOPMENT

The situation changed when the team faced serious organisation problems. The crisis forced the team to reframe the situation. The situations were observed at the end of cycle one and continuously observed through cycle two and cycle three. One observation during the crisis was a dynamic of power relation in the organisation. In a crisis, interactions within the team reflected actions that maximised participant selves' interests. The interactions impacted the dynamic of power relations in the Company.

Additionally, the shift in power relations impacted participants' perceptions of the organisational problem. The reflective collaborations were observed in cycle two and cycle three. I represent this observation in the arrow from quadrant B to quadrant D and the arrow from quadrant C to quadrant D as agile working with power relation dynamics (Figure 63). The power relation dynamics shook up the company norms and stability, as observed in the increase in emotions across the three cycles.

During the beginning of cycle one, the team made a decision based on tacit knowledge, assuming that by doing the right things for the customers, we would be the vendor of choice. We could achieve win-win responses from the client in return. The organisational learning in quadrant C did not last long because of the dynamics of power relations with the client. We had to rethink our assumptions toward the relationship management approach. The management team decided to diversify the ecosystem. The diversification caused the de-prioritisation of company resources from the client. The diversification effort shifted power

relations in the Company and with the client. The reframing of the situation moved our organisational learning from quadrant C to quadrant D.

However, once a working environment became stable, new norms are created, and newly acquired learning becomes tacit knowledge. So, when the Company adopts a new normal, the organisational learning returns to the non-reflective stage. So, how could we maintain reflective organisational learning? The question could answer the dynamic of power relations of a company. Because no one held top-down power in the Company, we could see the effects of agile working in the naturally occurring power relation dynamics.

In contrast, a manager in a traditional organisation needs to match an environment for reflective agile working. This could be why academics studies explain the mismatch between organisation culture and agile working (Ntuen and Renick, 2003). In most studies, academics assume a fixed company culture. Then, the studies focus on factors that contribute to the success of agile implementation. Because no agile method could fit all types of organisation, researchers created variations of agile methods for each characteristic of organisations (Sunner, 2016). For example, the Extreme Programming approach requires the co-locating of small members.

In contrast, Crystal facilitates large team members. A recommendation for a company to adopt agile is to select the suitable agile method that matches a company culture (Bunyakiati and Surachaikulwattana, 2016). The approach of matching the agile method and organisation culture assumes fixed environment situations: fixed-culture and fixed-agile method. However, in the thesis, I applied principles of agile working, which was a construct-plan-action-evaluation-reflection iteration, to the organisation without assuming to fix the organisation culture. By allowing an organisation culture to evolve, managers need to create an environment for the agile iteration. Then, organisation culture will evolve according to the power relation that the agile working initiates.

The question, then, is whether the new-normal situation would return to become a norm such that organisation learning focuses on an adaptive mode of learning. From my company context, because the power relation in the Company had evolved continuously, the level of organisational, generative learning was sustained, at least over two years. The agile working in a dynamic power relation could be the key meta-learning for organisational, generative learning. The meta-learning happens from a combination of generative learning and a continuously changing environment. Changes in the environment come from power relation

dynamics. For the power relation dynamic to be sustained, the Company needed to have a balanced level of diversification. No one group of powers had supreme control of power. The agile working initiated reflective interactions that challenged the underlying assumptions of a situation. The challenges of dominant assumptions through generative organisational learning rebalanced the power relation in my organisation.

To sustain the organisation development, agile working needed to reflect and challenge underlying assumptions during the agile working planning and evaluation of actions. Also, long-term planning that traditional organisations used might not be appropriate in the agile working environment. Instead of setting up a long-term strategic map, we could use a strategic compass to guide the Company direction. Initially, the Company focused on an extended team strategy of becoming a permanent member of a client ecosystem. However, the results of agile working informed otherwise. The Company could focus on an ecosystem business model as a strategic compass. The evolution of the Company was still on the track where the ecosystem business model led us. The agile working helped us reflect, challenge and adjust our assumptions toward the ecosystem dynamic. Thus, the reflective agile working in a dynamic power relation environment is the meta-learning in the organisation.

## 6.6 –CONCLUDING COMMENTS

Despite reflective Agile Working as potential meta-learning in both personal and organisational learning, reflective agile working must be used in an appropriate context, considering power relations. The reflective agile working could help to shift power relations so that new norms are regularly created. An emerging norm stimulated generative learning. Using reflective agile working to stimulate collaborations in an organisation created a learning organisation environment for start-up firms.

However, the thesis had limitations which would be addressed in the next part. Additionally, the limitations helped to recommend possible future research for reflective agile working studies.

### 6.6.1 – AGILE IN PRACTICE: RECOMMENDATION TO MANAGERS

Despite the popularity of agile development methods, implementing agile is not as easy as sending managers to certifications and applying the agile methodologies. Implementing agile requires careful management of change. Careful change management means taking power



relations and interactions into consideration. This section reflects my recommendations to managers when implementing agile working in their organisation.

I will continue to embed an agile working mindset in my company's employees. The key to implementing agile working is to encourage my co-worker to think critically through reflective practices. While most people focus on agile practices in software development units, agile working can be implemented in all business units in an organisation. However, because different units have their contexts, agile working must be adapted to units' working environments.

A prerequisite to start agile working is to problematise the situations to understand the existing governance environments. Then, a manager needs to define the scope of the agile working, whether it is a companywide or a focus area. The scope will impact the degree of involvements that a manager can decide to optimise a reflective practice cycle in agile working. However, no matter how a manager designs agile working, it is hoped that a manager can utilise and get benefits from my learning in one agile working implementation efforts. I summarise the guiding principles used during the action research thesis.

#### 6.6.1.1 – AGILE IS CONTEXT-SPECIFIC

Agile is a context-specific methodology, so one cannot select an agile methodology and apply it to an organisation. A large amount of literature discusses the benefits of agile in delivering solutions that match customer priorities. However, a particular agile development method can be applied to a specific organisational context and environment (George et al., 2018). So, several agile methodologies developed for each project's characteristics, such as project size, personal requirements, and criticality (Lindvall et al., 2002). Because of no one-size-fits-all characteristic in an agile methodology, Bunyakiati and Surachaikulwattana (2016) recommended that managers consider both strategic focus and environmental need aspects of the project when selecting an appropriate methodology.

In the thesis, instead of selecting either an agile or traditional approach, we used a hybrid approach to bridge both worlds. By using agile working during a requirement phase, customers could ensure that the software worked while maintaining the traditional project management after the requirement phase was to ensure compliance with the client IT procurement policy.

Even though the agile implementation increased the development timeline, we used agile sales to manage customer expectations and gain additional budget approval for the extension. We

used a daily stand-up activity to understand problems, resolve customer expectations, and gain customer buy-in for the scope increase.

#### 6.6.1.2 – FOCUS ON PEOPLE, INTERACTIONS AND POWER RELATIONS

Motivation and commitment were the key drivers for creating interactions in agile working. During an implementation, managers should observe the dynamic of interactions among participants. The interactions reflected how the managers managed motivations among members. Interactions impacted motivations, eventually, commitments that agile team members had to the project.

Moreover, the interactions changed as the power relation dynamic changed. Managers could take advantage of the power dynamic by continuously stimulating an environment that promoted further interactions. Interactions among people stimulated reflective learning among the team, as well as organisation development.

#### 6.6.1.3 – COMBINE PHYSICAL AND VIRTUAL CO-LOCATION

Most managers misunderstood that an agile project required a physical co-location of team members. Our client also required that teams sat next to each other for better communication. We struggled with the request at the beginning. We successfully utilised a combination of physical and virtual co-location of the team. The example of virtual co-location was LINE chat for project communication and Google Suite for synchronous collaborations.

The project director needed to facilitate and monitor the interactions and communication in both modes of co-locations. With the hybrid co-location approach, we could minimise project costs and increase our employee morale by allowing some of our team to work from home. The approach was highly relevant in the COVID situation during the support phase.

#### 6.6.1.4 – BALANCE BETWEEN BENEFITS AND COSTS

The balance between customer satisfaction and delivery costs is critical to the success of agile working. The project manager needed to manage emerging requirements. While agile development allowed customers to rethink the requirements, the emerging scope could cause project overrun. Customer expectation management played a crucial role in the balance between agile benefits and costs.

We utilised a Minimum Viable Product (MVP) to help customers visualise minimum releases of the system. MVP helped the team to understand the impact of increased requirements. The MVP provided evidence for the project management to justify additional budgets.

### 6.6.2 – STUDY LIMITATION AND RECOMMENDATION FOR FUTURE RESEARCHES

My company context provided several limitations to the findings. Firstly, the Company was established primarily by retired senior banking and IT executives who wanted to create passive incomes after retirement. The income sources came from their contributions to the Company regarding intellectual property and the capital they put into the Company assets. For intellectual property contribution, the executives would get a royalty fee based on the revenue contribution potential. For example, the development director would receive a 50% share of the banking application license fees. The sharing was based on top-line revenue from the license fees.

In contrast, each shareholder would get dividends based on their shares in the Company. The structure created a unique governance system in the start-up environment, which is unusually found in a regular start-up environment. Company governance is the source of diverse power groups. Each power group interacted dynamically to maximise their power relation in the Company.

Consequently, the agile working was set up in a highly dynamic, with no dominant, power relation environment. The power environment contributed to the generative agile working environment discussed in Part 6.3 of the Chapter. The meta-learning derived from the unique company governance structure might limit the generalisation of agile working as meta-organisational learning.

- Reflective agile working in a different company setting, such as in a typical start-up environment, could be future action research.
- Another potential research possibility is to use agile working to create power relation dynamics in an organisation. The study could explore whether agile working could be a meta-learning in other organisational contexts.

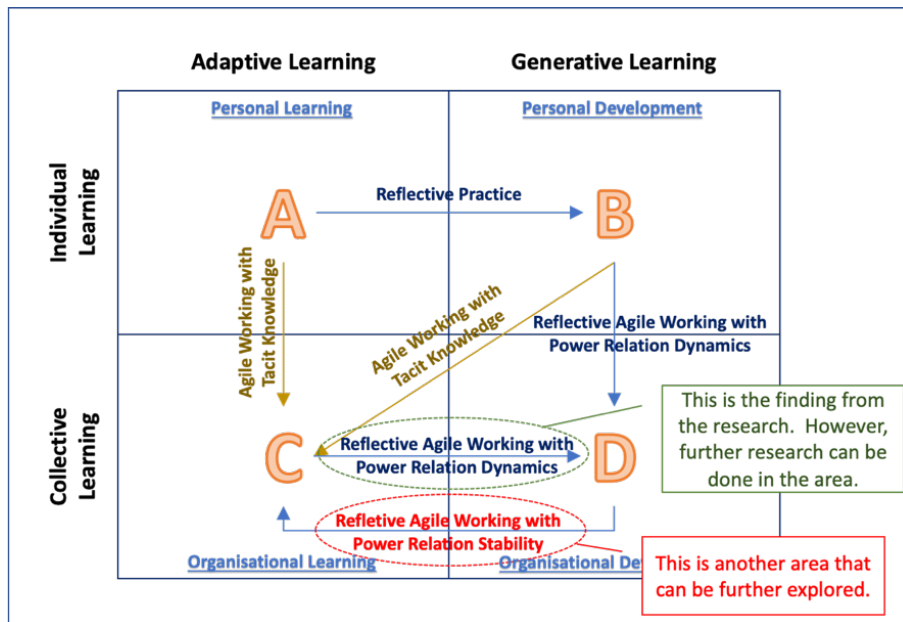


FIGURE 64: AGILE WORKING AS THE META-LEARNING

Secondly, the action research thesis was limited to a period of two years. The period could be too short for examining whether reflective agile working could prevent the stabilisation of the power relations in my organisation. In other words, can the reflective agile working prevent a migration situation from quadrant D to quadrant C as in Figure 64?

- The possible research is to extend the agile working action research to understand the continuity of the generative agile organisational learning.
- Additionally, longitudinal researches could be conducted in other organisations to examine whether agile working could be established as a meta-learning for generative organisational learning across organisations.

Thirdly, in contrast to other agile studies focusing primarily on internal application development organisations, the agile working in the thesis was implemented in client-facing units. The setup created an arbitration between the client organisation and the Company. The arbitration was a significant source of power relation dynamics across an organisation, which was not the focus of the action research thesis.

Reflective agile working could be expanded to investigate cross-company setups. The cross-company interactions reflect a continuous ongoing negotiation for power between organisations. So, the cross-company power relation dynamics could be the source of meta-generative organisation learning.

### 6.6.3 – MOVING FORWARD

During the end of data collection, the project reached the go-live preparation stage. The agile project successfully went live in Feb 2020. During the go-live preparation, the client started to discuss enhancements and change requests. The enhancements became the Company pipeline in 2020. Additionally, the Company also created a healthy pipeline of sales with other financial institutions.

However, I realised that the Company products portfolio concentrated around traditional supply chain banking products. So, I decided to transfer the Company operations to another founder and switched my focus to explore a new s-curve for the Company. The new s-curve technology in banking technology moved toward a direction that enabled an ecosystem formation among financial institutions. Two of the promising technologies included distributed ledger blockchain and API-enabled open banking. I successfully reached an agreement with an ASEAN-based open banking start-up to become their representative in Thailand. My next plan was to bring open banking knowledge into the Company so that the Company can start a new business model soon.

As I have shifted my focus toward the new S-Curve business, I plan to utilise my DBA and agile working thesis. By introducing agile working to the new business, I plan to establish an organisation development mechanism so that the new business continues to evolve and innovate its business model.

Additionally, I have realised the beauty of learning from the DBA program. The DBA has taught me a bridge between theories and practices. In the beginning, I realised the benefits of localising theories. However, after the thesis stage, I could globalise my practices through the reflective action research inquiry.

So, moving forward, I will expand my business practices and actionable knowledge through the reflective globalising-localising cycle. Practitioners can benefit from academic communities, while academia can learn from actual practices.

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