

APPENDICES

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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Appendix A1

Scripts and Transcripts from Knowledge Capturing of Expert # 1

CASE 1 Wealth Management

Question 1 What are the elements that potentially fosters the occurrence of innovation?

Answer 1 Human resource, viewed by CEO, is considered vital to the occurrence of innovation. Appropriate selection of staffs is the first sub element under common passion. Staff recruitment must be executed with utmost care . Selected staff must be competent and able to blend with our culture. Each staff here is a highly responsible individual. They appear to take after this admirable attribute from their supervisor, right from the time they joined the organization. Personal passion is appropriately aligned with organizational objectives.

Common passion comprises positive attitude of staff. CEO explained that it started with the basis question “what do we want to be?” The answer is “we want to be the best research and development in software development, benchmarking with competitors in the industry, garnering top place on prestigious, hard-earned awards.” As our current market share is ranked number one, there are no other Thai competitors. We are competing against foreign ones and big names such as Thomson Reuter. The motto representing our attitude, ‘It may be difficult but it is possible’ is posted on the announcement board on the seventh floor of our office. It is unsurprising that people who never become are those who live by the attitude, ‘It may be possible but it is too difficult’. We therefore require staff with ‘can do’ attitude. To foster the staff’s positive attitude, emphasis is made through new staff orientation, which we make it a two-day program, to drill into them this essential attitude from the very beginning.

Next, personal mastery is a key to the innovation generation process. Personal mastery comprises of perpetual learning, when each staff is encouraged to make progress, to acquire new knowledge for self development and, in turn, to give

back to society with joy. Every industry needs to be strong in terms of production and internal process, but most of all, is human capital. It took us almost a year to find out on what is our core competency. This was carried out through a study done with our staff, which the findings were submitted to Harvard University to determine the core competency of our Management. Such efforts imply perpetual self-learning. If we cannot discover on our core competency we will not be able to execute on Knowledge Management correctly. We require only the type of knowledge that enhance our competitive advantage. On Process, we use CMM which is standard of Software House. This is considered to be the best in the world. Through this stringent practice, we were able achieve CMM ISO-3 even before IBM Thailand

Shared Vision is an important element in the innovation generation process... The Owner's vision is to be the best in research and development in software development. The recognitions and awards in software and related business earned are our benchmark. Starting from vision, followed by mission strategy and strategy implementation, which comes into work program and budgeting. As owner and CEO, I am the motivator and conductor. I give guidance and outline my expectation, but I do not manage them. I convert the intangible into tangible, esp. the difficult ones such as those that threaten on morals. In one case, at Citibank, we simulate the situation into the questionnaire. Our staff were questioned on the scenario such as 'what if someone offer you free concert tickets, those kind of expensive tickets for famous performers? Right upon doing this questionnaire, we reveal the answers in order that they know what they should do in such a tempting situation, thereby learning on the ethics of our organization. This is the example of how we turn our ethics into tangible..

Our company's vision is "To be professional best in software development in financial and banking business sector". CEO must act as role model and make staffs having clear understanding of Knowledge Management and to make correct interpretation on it. Constant development will lead to new knowledge which will bring to those who achieved them the delight in contributing back to society

SME owner has an important task to turn staff' personal vision into common goal, in line with the vision of the enterprise. This requires effective communication of owner's visions to staffs. The owner must align staff attitude towards owner's inspiration. Each staff possesses different attitude and requires different attention. We have to recognize their nature and fine-tuning on each individual. Even if it is time-consuming, it is worth the effort. More importantly, the issue of how enterprise has been successful has to be implanted in each staff from the very first day, upon their work-orientation day. To foster the alignment, the owner employs the strategy on building conducive surrounding environment e.g. working styles as well as sharing on how the enterprise's success was achieved. Evidences were cited to convince newcomers that their efforts can be meaningful. These evidences can be quite challenging to those unaccustomed to what are the success measurement for the best Software House in the country, within the timeframe of three years. The road to success is equated to vying for first place in the competition, such as winning on the category of Best Managed Company in the SME National Award. Each year there is the desire to win awards to prove our success, including the Princess IT Award, considered to be the most highly-prized award in Thailand. As such, there were evidences of our success through the years. All awards stand as proof of the owner's insight, not only in practical term, but also as an effective tool to convince staffs to follow the owner's inspiration. Work tasks are breakdown into small projects in order to make staffs feel comfortable and confident to execute their works aiming for achievement. Mind-Map is used as tool to classify and prioritize each staff work. The mind-map make staffs learn what enterprise's goals are and what they have to do to achieve those goals. Initially, on a one-on-one basis, CEO discusses with staff on the goal in big picture and demonstrates to staff through the use of mind-map, drawing examples. Once the staff appears to understand, he will be requested to do a business plan, a process through which he can gain better understanding. At this stage it is easier for the CEO to specify his requirement, again mind-map drawing can be employed. When the staff has grasped the ideas, each of them will carry through on it and worked on how it can be linked together, or the CEO may point the connection. This way, each staff works on his own modular work which, in final stage, all small

pictures can be assembled into the complete big picture. This practice can only become successful when each is told where in the picture they are.

CEO recognizes the importance of the right mindset. Based on the book “Build to Last”, we aim to be smart enterprise, not large one. If the enterprise is smart, then it is sustainable. We build commitment between owner and staffs by crating trust. Owner and staffs commitment is originated by the right mind set and trust between both parties. One of our staffs who now become supervisor expresses his sense of belonging. He makes a DVD story about Wealth Management Company starting from the start-up. The content of the story describes how the company develops and progresses until now.

Next, culture is the element influences the creativity of staff. Owner always interact with staffs in such a way like family members. Staffs take turn to be project head. The staff who has experiences in particular issues give hand to friends who require assistance. Smart staffs always share their knowledge with others in company. Staffs who become supervisor now have got good care form senior in previous days, respond the same actions to his subordinates as he faced before. “Like-Family members” treatment makes our staffs fell working at their homes. Staffs are pleased to help each others when someone needs assistance. Senior staffs are ready to teach junior ones. Staffs at supervisory levels must build their own respect, expressing their commitment to the company growth. Once subordinates recognize your prestige, they follow supervisor’s instructions aiming to achieve work goals. Before teaching works to subordinates, supervisors must build good relationship with subordinates. Such relationship brings effective teaching.

Corporate culture is called “Wealth 39 Professional Practice”, which is modified from best practice of CitiBank. The corporate culture is used in staff coaching. The Professional Best is adapted to be appropriate with our firm which is much smaller compared with CitiBank, however most critical content remains unchanged. The implementation of coaching is based on the “Wealth 39 Professional Best”. Coaching is performed by both CEO and all supervisors. Two training courses

which are developing management skills and managing people, are provided for supervisors to enhance their skills. Attention is focused on the middle-level supervisors because the company sustain or not, depending on this group of staffs.

Working atmosphere is classified as freedom and fun. Staffs have freedom to express their opinions and suggestions in meetings. Staffs are proud working with Wealth Co.,Ltd. The company story is developed in the form of DVD, its content comprises how company is set up, how company overcomes obstacles and how company has gone to achievements evidenced by many distinguished awards. Staffs feel a lot of fun when having seen the DVD.

Well-known experts are invited to share knowledge with staffs at all levels to sharpen their skills at works. Project managers take turn to be project leaders. Each manager shares their experiences. There are various projects to foster knowledge sharing among staffs e.g. Senior staffs teach junior ones, Friends help Friends, Wealth Library, Blog and Web. Some staffs are assigned to read interesting books, then he tells story to friends and put summary of the reading into web portal. All activities support each others. Staffs must love each others before sharing knowledge. CEO creates joint activities for all staffs to have an opportunity to share knowledge both in personal life and work experiences e.g. outings, Songkran activity. Coffee Break two periods a day 10.00 am and 14.00 pm, this is called happy hours. Staffs are free to talk or do any things informally. Based on observation, this is very good time to share knowledge because they relax. One interesting activities called "Sapa Gafair". Staffs are free to talk about anythings. CEO inserts contents initially 30% and then marginally increase the contents so that issues discussed is useful for their work operation. Staffs take turn to teach each others. "Teacher of the Year" award is set up to motivate staffs. Khun Somkiat, CEO is the first one who gets the award. CEO therefore acts as role model for all staffs.

Rewards are provided for the staffs who achieves target as a motivational means. Staffs are motivated by earning special bonus when they completed a project

as member of project team. Some staffs are honored to be guest speaker at universities e.g. Chulalongkorn University on behalf of the company.

Most staffs at supervisory levels can not follow company's due to lack of thinking process how to teach subordinates. This results that subordinates do not perform as supervisors require. However the true cause is that supervisors do not know how to give clear operation guidelines to subordinates. CEO therefore must provide clear guidelines of operation to all staffs levels. Focus is on corporate culture, "Wealth 39 Professional Practice". Work ethics are also included in the culture. Final expected output is staffs who posses their works in line with operation guidelines. For example: To check whether supervisor do it right when they hands out reward to subordinates, we even do questionnaire to check on the supervisors. Each year, we have a 'Two-down' tradition. I will reach down to two-layers of staff, and make this a normal practice for all concerned. If the Supervisor does not carry himself in a good way, he will be in trouble as everyone will say the same thing on him. This helps with turnover and I can tell which issues still troubling our staff. I can relay on these issues instead of the staff having to face this task. Thais are timid. Most of them quit the organization due to their Supervisor. By doing this, it also allows the Supervisor to improve themselves.

Entrepreneurial mindset of both owner and workers is the next element of the innovation generation model. Staffs must always look for business opportunities. All customers are fund managers who are knowledgeable and smart. Ideas and suggestions received from the customers are valuable and useful. The information is used to improve the company's software and services, bringing to innovation finally. Focus is on outside-in. Our company focuses on customers by standing in the customers' shoes and observing their processes in action. CEO must be decisive on how to move company in the direction, which is appropriate for company regarding innovation. The company must be prepared to manage risks and sustain in long term as occurrence of innovation usually takes a long period of time. Creativity drives innovative processes and outcomes. The failure to cultivate creativity leads to the failure to innovate. Creativity requires each staff to have the capacity to visualize

new and different products and processes. Therefore creativity requires the ability to think differently, to continuously learn, to discover and discern ambiguous patterns, to draw inferences and form conclusion in new and different ways and to take risks. Finally, creativity requires personal courage and conviction to be different and to constructively challenge the status quo, established doctrines and known patterns.

Business competency is necessary element to create commercial value, which results in innovation of an enterprise. The business competency requires work experience of owner and workers, and business networks. To reach success from the very beginning, the mindset has to also be correct from the very beginning. That is, having the right mindset for the organization. I have got my mindset from the book 'Build to Last.' What this book implied directly was that the structure of the best organization may not be the most profitable organization. Therefore, if the mindset is correct, it works out automatically. Two of my friends are examples. Both of them are medical doctors. One aims to be the richest, the other to be the best doctor. In the long term, it is the latter one who was more successful than the first. This is the same with an organization, if the goal you set it to become the biggest and most profitable, it is the wrong goal from day one. But if the goal set was to be the best organization there is, everything will follow suit. Therefore, I believe the right mindset is extremely important in getting the organization moving in the right direction. Based on owner's past experiences, here our definition of wealth has 3 'P' aspects : People, Process and Professional Best. We taught staffs mind map and let them in a contest, with attractive rewards and display their work in the office. Thus, our new staff and those who came before them are well-versed in management, as before they can come up with the mind map, they have to have to first read the whole document, and then convert the policy into tactic such as an outing or contest. Any team that win first place will get the prize but they have to be on stage to present what are their inspiration. The hidden agenda here is that we get them to really understand the whole picture. Once they get it, together with their past experiences, they are able to set the goal with the staff in their team that what are the priority of the day, or use it as tool to evaluate the staff. Business networks help company to expand our products to various customers by building good relationship with outsiders.

Question 2 : What are the possible constraints against the occurrence of innovation?

Answer : Those are lack of financial support and lack of knowledge.

Question 3: How do you solve such problems?

Answer 3: The solution for lack of knowledge is as follow. How do we build our organization? Will our organization be the model organization to others? Thus, we need to do CMM. We were among those very first companies that got CMM, which was indeed very hard to achieve. As well, we need to build our image, form business alliance. If you in the business of software, it would be like Bill Gate, when he was still unknown, trying to approach IBM. I also had to make myself known to IBM, to Microsoft, Oracle. I had to approach Software Park, although my company was very small. In those days, Wealth only had a registered capital of one million Baht, with 4-5 staff, working in an old warehouse. From where I was then, I told myself I would keep this company going for several years, until I find out on the software industry. I was only a banker. Software was entirely new to me. The growth was gradual. I kept emphasizing on this to our staff every year, and on what we should do. We have to be clear on our goal, and let it cascade to staff. Due to our products closely link with rules and regulation of commercial bank and Bank of Thailand, we hire consultants from outside to strengthen our teams. In addition, we employ experienced staffs, for example, our Managing Director has more 15 years experiences in banking sector. New and high-caliber graduates from well-known universities e.g. Sirindhorn Institute of Technology - Thammasat University intend to work with us due to our good reputation in the software market.

We solved the lack of financial support by funding from family business, co-founders, and borrowing from banks.

Question 4 How do you set criteria to justify that the innovation has occurred?

Answer 4: On process, we use CMM which is standard of Software House. Everyone is forced to adopt this as Best Practice, in pre-identified document form and content. This is the detailed process they must undertake. They are also audited. We earned CMM level-3 before IBM Thailand. We are now going towards CMM level-4 which

is the same level with Microsoft. We want to be the Best R& D in Software, earning first place in the very tough competition. We are first place in terms of market share. When we were building our organization, we had 3 pillars: People, Process and Professional best. Why did you start with 3 pillars ? I believe in the right mindset. I believe in the book 'Build to Last.' I have no wish to be the biggest company but the best and the most capable one. If it is so, it will also be the most sustainable. Even if we are not good in risk management, that does not matter. If we put too much efforts in risk management that may make us less concentrating in other pillars needed for our sustainability. In building corporate culture, if you have too many focuses, this can cause confusion. If possible, it should be simple, in just one word. Innovation requires novelty and commercialization. It is usually taken a period of time, mostly long term, to complete a new product therefore sufficient knowledge to make novelty happened and financial support is also critical to our achievement.

Question 5: What do you do when some criteria are not fulfilled?

Answer 5: When we fail to generate the innovation, here are our actions. Company education is essential before any change program is rolled out. Education is as much about mindset as it is about skills. Shape the way employees see the world, and their actions will be changed. If there is KM but it is a bland KM there is no use to it. Between our staffs, if there is no knowledge sharing that means there is no friendship ongoing. There has to be strategies, activities and trainings to forge such caring attitude. We put all the knowledge there is in our web portal that is frequently viewed by our staff. When they are assigned new project, they can shortcut to the knowledge through this web portal. Plus there are a number of good trainings in there. That is the KM we set up. In the beginning we had to devise strategies to attract them to the portal. In the first years we only put in few such as 40% of content, another 70% through discussion in some forum or over coffee session. Once they start to get used to it then we gradually add more content, but also with added activities to entice them to be caring and sharing their knowledge.

The closer our company gets to its customers, the easier it is for us to the commercialization. Our company can speed up a sluggish start the transition

nominating a few potential champions at the successive levels. The designated champions can then be sent out their experience firsthand some of the problems that face our company's customers. This results in a bottom-up leadership from those closest to the customers. Orientation for new staffs. Good orientation will reduce more than half of the turnover. The Thais do not give importance on this point. Good orientation is to tell them on what our company believe in, what are the 3 pillars of Wealth, how can we grow together, why would they be proud in joining us and what s the corporate culture. Some of senior staffs take turn on stage to tell about their knowledge and knowledge sharing become the norm of our company. We spend two days on orientation. We want the right culture, the right standard, the right practice. Every piece of work has our brand on it, as such it needs to be reliable. If you want to build up culture, you need to be the story teller over and over. This is the duty of CEO.

Owners are responsible for identifying improvement opportunities, while line mangers trying to run business. This caused a great deal to tension within the company. And although tension is often thought of as undesirable, however this debate and discussion unleashed creativity in our company. Issues, and hence opportunities, surface much more quickly. To see the cycle, sometime when those in the level of Management/Supervisor do not follow on it, we find out that in fact they do not know how to do it. For example, their staff do not follow on what has been agreed, thus no best practice. In this case, our first suggestion is that you have to build up your merit to bring your staff to respect you. Show your determination. If you can do all of these, your staff will follow your set goal. Next is on teaching on the job. How do you do it. Before you do, have you built up your relationship. If not, they will not believe in you no matter how you teach them. Do you plan how to teach them. If your staff disagree with you, do you protect them. If they got blamed by other department, do you help them. This is a challenging task particularly for staffs at supervisory levels.

Our company needs to go out and find help in those areas where we have insufficient expertise – for example, with the techniques of change management.

Most importantly, outside help can help us surface and challenge assumptions that may be invisible to the rest of the organization.

The role of the CEO, besides being the lighthouse shining the way, we have to also be the battery or the motivating factor. CEO tells staffs that it will not be easy to compete on international basis, however, do not afraid to fail. The sooner you fail, the faster you will reach success. This attitude is posted on the 7th floor of our office. “It may be difficult but it is possible.” As CEO, I always encourage my staffs through optimistic viewpoints. Those who cannot reach success will say “It may be possible but it is too difficult.” Thus, we need people who have the ‘Can DO’ attitude.

Innovation begins with an eye toward the future. CEO takes the foresight to look the future of your industry and the right risk attitude to act on his insight. Starting from vision, mission, and strategy down to strategy implementation, which is different from Work program and budgeting. There is also risk management embedded in the Work Program so that it does not fail. This is made into the goal of each department. If we have a clear work program, the project management will also comes out clearly and easy to do risk management. This makes it easy to do document evaluation at the end of the year.

Find out what is core competency which is taken nearly a year. If we could not find this out, KM will miss the point. There are a lot of knowledge within the company, but we want only the knowledge that will increase our competitive edge for KM. Without finding our Core Competency, we have no way of knowing which are the vital knowledge for the company. We took in the requirement from over 500 customers who are all very smart fund Managers. They have given the idea for our team of consultants, leading to the R & D. These requirements from customers became the innovation formed by this group of consultants. As for now, it can move on its own.

Appendix A2

Scripts and Transcripts from Knowledge Capturing of Expert # 2

Case 2 Bathroom Design Co.,Ltd.

Question 1: What are the elements in the occurrence of innovation?

Answer: Appropriate selection of new graduates is critical element for common passion . Most of our new recruits are newly graduates. We do not take in those with lots of experience. They are like a glass already full. Here at work, you need to be open and accepting. First is to accept the old-hands here. Second you have to be open to new ideas. We must select innovators with the least ego and with the most willingness. They have to possess moral fundamentals, with gratitude, to bring pride to their parents. We recruit staffs in line with our company's goals.

Positive attitude is a basic component of common passion. There is always room. In everything there is always room for opportunity. If we have got passion for it, and there is a thorough study of the market and the consumer demand, although there may be no market as yet, we could make it a new functional product, what the market need. CEO conveys the passion through being serious about innovation and displays a sense of urgency and personal dedication to innovation and those chartered with being innovative. Staffs must be confident they can do their tasks.

Everyone in our company requires Personal Mastery which is an important driver in the innovation generation process. When we run our business, we try to manage it the Buddhist's way. CEO believes that it can make us a rich man. There are three principles that will make us truly rich: first, to produce it; second, to use it appropriately; third, to take the rest to assist others. These three principles altogether will bring wealth. However, it was told that being rich does not mean wealthy, but nobleness.

Failures there were, but I am glad each time I run into failure, as I know this is not the right way to go, and that I will find a new way. The first key success to

innovation is willingness and perseverance. The second, effort, will come automatically, and not by command, when we love what we do and when it is treated like your hobby. The third key success, active thought, conscience and concentration, can be achieved when you put your mind into your work. The last key success to innovation is reasoning, meaning frequent monitoring and review. Altogether, this is, in fact, the principle of modern management..

In the old days, there are many rich and benevolent men who ‘produce a lot, use appropriately and be helpful to others.’ How they work is based on the four principles of ‘Iddhipada’ (‘basis for success’ or ‘path of accomplishment’). Anyone who choose these principles will be ensured success. Willingness is when you enjoy what you do, everything can be innovation and new ideas abound. You work not for money, but for happiness. Look at Thomas Alva Edison, how many times his experiments failed. But every time he failed, he was glad to have learned that it was not the right path. A new one will be found and he devoted his time to trying.

Iddhipada 4, will lead to a high-efficiency organization because everyone does their work with love and there is perseverance to see it through, to turn crisis into opportunity at all times. Personal mastery therefore always comprises perpetual self-learning. Acquiring new knowledge is therefore necessary for both owner and staffs.

Next, shared-vision is a key to the innovation generation process. There is market opportunity for bathroom products, and there could be more designs than ever before. Bathroom is the space with the highest value within the house. We will use our creative ideas to reach our goal of bringing innovative bathroom products to the world.

The company’s vision for 2020 is to be the leading innovator, among the world’s Top Five, through emphasis on design, technology and usability. The company adheres to the corporate governance rules and the concept of sufficiency economy. In working towards sustainability, the company continually enhances value for consumers, employee, society, and the environment.

Bathroom products are boring. In the old days, they look nearly all identical: sanitaryware, faucet, bath tub, sink. There were nothing of outstanding beauty. When constructing a house, when compared by square metre, bathroom is the most expensive. Bathroom of just a few square metre can cost hundred of thousand Baht. I foresee that a business on bathroom, with differentiation in product designs, can create value-add.

CEO is not concerned about being copied. In contrary, if his work is imitated, CEO views that it means his company has become the leader in bathroom products. With the past 10 years of knowledge and experience, he foresees that the trend on bathroom products will be on reducing global warming and on water and electricity conservation. The company's product design will follow the trend. The design will be in geometric shapes : square, oval, circle. CEO said the simple but beautiful design of today will still look classic in next ten years. CEOs have a role to give work guideline and show his expectation.

However, the innovative design must meet with market demand to keep the business going. CEO said the prices of sanitarywares and bathtubs can vary from 5,000 Baht to 600,000 Baht, top range. The target market varies from the general customers to foreign customers who run hotel business in Japan, Bali-Indonesia or Maldives. Eighty percent are Thai customers while only twenty percent are overseas markets.

Owner's visions must be communicated to staffs. View your customers as your parents, the people that you would like to give the best of products. All of our staff must have this understanding. I drill into them daily, just like morning talk. With this 'customers are our parents' view in mind, when there is a customer case, the staff will be willing to accommodate their request, even if it means a loss, if it will make the customer happy.

Shared vision also requires mutual commitment of owners and staffs. Here we have a campaign to do good for others. Every Wednesday, some of our staff will be

doing social works at the orphanage and the homes for the elderly. On Friday through Sunday, some of them will practice dharma at Panya Nantaram temple. Each year, they will be on voluntary camping trip to build school, or join with the team of voluntary doctors, or do activity with the Sueb Nakasathien Foundation on forest protection. Our staff has to join in these tied-in activities, which they enjoy. Corporate culture can not be built within a couple of years but it takes 10-20 years, with the corporate leader as a leading example. Important basic is creating trust between owner and staffs.

It has to begin with the leader who must understand that our life does not depend on achieving the highest figures, making the most money, getting all as wished, become the quickest to be the richest. If that is the expectation, it will create the heat wave, the suffering, to the staff. If KPIs are not reached, they will be fired and new staff hired to replace. But in contrary, for human beings, happiness is in contentment. What is contentment for them? It is being content in doing the work they love, in what they have, in sharing. If the leader has this understanding, he will take the path led by Lord Buddha and by His Majesty the King. Instead of sending out heat wave, it will be the cool air of peace to those near to him. This is called 'lead by example, live to be seen, give peace to others'.

Corporate Culture is one of the most important drivers of innovation occurrence. The people at work are like our siblings, and we treat them as such, not just in talk. They also give back as if they are our real siblings. Let me give example, our company provides scholarship to staff. Anyone who wish to further their study, they can request our support. They will be given scholarship, without commitment, up to master degree. If they have children, we also give education scholarship to their children up to master degree. After they pass away, we will help support their children's education, in a monthly fund of two thousand Baht, until they earn a bachelor or a master degree.

Everybody (as sibling) is in a brotherhood. This is another innovative thinking. I show it to them the owner is not greedy. When their child is sick, even if the insurance does not take them, we will. Theses people are like relatives to us. You

have got to win them at heart. We make them feel working at their homes. We also give money to help their sick parents. Long-time staff will be given priority to such assistance. Each company may have different way of helping. In our company, subordinates recognize supervisors' prestige and gets good care from senior workers.

At my company, we will visit their home in the province, to see on the well-being of their parents, what are their difficulties, what are their needs. If they want to do the rice field, we help to have the land graded. If they can not grow rice, we help them to dig fishing pond or grow mushroom as source of income. This is what we have to buildup. We have to grow the bond of brotherhood with our people and build them up. The last case was one of our staff from Chiangrai province, whose child had brain infection. He needed 50,000 Baht. I immediately gave him 30,000 Baht, the rest we can discuss. If he has not got the money for it, I will absorb it and he could pay me on installment. We do not have this offer on our welfare scheme, but if we view our people as brother, we must help one another.

During economic downturn time such as now, CEO does not increase earning for his employee, but he helps them to have lowered expenses. There is free food (rice & nam prik), inexpensive herbal drink (at 2 Baht a glass compare to 10-15 Baht a glass sold elsewhere) and take-away food at 10 Baht a bag.

On welfare, the company encourages employee to do further study by providing financial support. Children of employee will get education support until they earn bachelor degree. For demised employee with no children, the company will provide 2,000 Baht monthly to support the parents. CEO said that although his is a SME company, he and his staffs work together in brotherhood.

CEO always provides coaching to staffs. View the customer as it they are our parents, to whom we want to give the best products. This attitude is constantly drilled to our staff just like we are giving them daily morning talk. When they adopt this attitude, they become more compromising when dealing with customers, the same way as when they treat their parents. It may mean a loss sometimes, but fine if it makes the customer happy. There were some big projects that ordered more than

twenty bathtubs from us. They ran into the problem of overflowing bathtub. The underlying problem is not on our product but because they built the bedroom right next to the bathroom and, with the natural overflow, the water from the tub went onto the parquet floor. The Housing project asked us to change all the twenty bathtubs and develop new products, we complied without any charge to them. They were very surprised as they knew it was not at all our fault. They insisted on paying as they knew it was the mistake of their design, but we told them it did not matter, that we work like relatives. With that kind of decision we made, other projects' work were given to us. The more we give, the more we get. The more we want to get only come if we do not take advantage on our customers. That is the principle of virtue that our company works on.

Firstly, 'Chan-dha' as the main principle,. Those who run a restaurant will be more successful if they love cooking. Those who like sports will do well on sport-related business. Those who love music can excel in music business. I think all of this comes the word 'Chan-dha.' meaning if you have the passion for your work, you can do it well. You love doing it, not as work, but as something you enjoy. Whatever you see in the news or on television, they can be innovation at any moment.

CEO said he works every day and he is happy. Work and rest are the same to me. I believes freedom and fun atmosphere leading to happiness, can be created as a part of corporate culture. Staffs are free to express their ideas and recommendations.

There are two important teams behind the success and 14 awards garnered in 2 years of our company. These are teams of designers and engineers, about 30 of them. They hold knowledge sharing session every Saturday. CEO calls this 'Creative Saturday.' This make them love each others. On this day, everyone has the opportunity to fully express their ideas share knowledge together. He always stresses that the ideas must be out-of-the-box imagination and, if possible, never before seen on earth. Each time, many of these designs will be screened down to 1-2 pieces which will be further selected for new products to be launched twice yearly. We also give

them awards for their ideas. I always act as role model by sharing knowledge with staffs.

Staffs are motivated by giving them rewards. On career path, all of the staff who has been with me have been promoted. They all got the opportunity to showcase their ability. This group of people will feel good when we value them. Now when we are given recognition award, I rarely go for it but let my staff go in my place, giving them the chance to shine.

Clear operation guidelines are given to staffs to make them understand how our business is managed. I brought in ISO system. This is the KPI to assess the Design department. The Design department will discuss with the Management, with the Sales department and make improvement. There is Kaizen, which all the inputs and feedbacks from each department are compiled and applied. This was initiated by another of my Managing Director.

It is fact that the whole thing cannot be managed, just between my siblings. I thus upgrade those in the Management to owner level also. We make assessment and share profit on their SBU. If their area of sales is in the provinces, we look at how much altogether they sell in their area. We add profit on the manufacturing cost and let them manage on their own. If they earn profit, it is split into three parts, one part is shared among themselves, another for further investment, the third part is for shareholders, and 5% to do merit-making.

Buddhadasa said that the concept of Sufficiency economy is quite similar to the Buddhism's 'middle path,' which is 'balance in every dimension.' The first dimension is sufficiency and self-reliability. How much self-reliance is your business, if not much it will be vulnerable to problems. The second dimension you need for business threat immunity is to ability to compete in the globalized world, in the domestic market as well as international market. What is our outstanding point, of which include innovation. The third dimension is on how we can contribute to others, not selfishly for just our company and our shareholders. All of these dimensions

brought together very firm balance : self-reliance, competitive, contribute to others, with immunity and reasonableness. The fundamental of balanced dimensions are the the balance between knowledge and virtue. To be an organization of knowledge and virtue, we have to build from top executives down to bottom level, only then we can reach the goal of optimized profit.

When you run a business, try to manage it the Buddhist's way. It can make you a rich man. There are three principles that will make you truly rich : first, to produce it ; second, to use it appropriately ; third, to take the rest to assist others. These three principles altogether will bring wealth. However, it was told that being rich does not mean wealthy, but nobleness.

Every Wednesday, CEO gives permission to a group of his employee to make social contribution such as giving lesson to children, giving haircut, providing food, setting bathroom fixtures for the home of the elderly. At the office, there will be donation box which the company will double the donation amount. For example, if there are 50 Baht in the donation box, the company will add another 50, or if there are 20,000 Baht, the company gives 20,000 Baht more. "My perspective on happiness is that the more you view happiness as materials and money, the more happiness will run away from you. The more you reach for such type of happiness, the more it will escape you. In reality, happiness is in our heart, and it comes from being sufficient."

Those in the business circle of bathroom products recognize Mr. Wacharamongkol as CEO and Founder of Bathroom Design company, whose firm is well-known for its 'Intelligent Swirling Bathtub,' an outstanding product which has won 4-5 world-class awards.

"We look at how to return benefits to employee, customer and the society. Our policy on how we treat employee is the easiest to make. If we apply the principle of love, the heart of every religion, the policy comes up naturally. At our company, in addition to giving bonus and salary at appropriate and market competitive rate, we also give education grant for employee to study till master

degree. We give scholarship to children of employee, from kindergarten till bachelor degree. When an employee passes away, we give a two thousand baht monthly salary to their children till they finish their education. If there are no children, we give this money to their parents.” We let our employee take off on his birthday, and one day before the birthday we present him the cake and let him draw prize for birthday gift which may be movie ticket, or 500 or 1,000 Baht, for the birthday person to take his family for meal treat.”

For customers, we treat them as if we are presenting product to senior relative that we respect. We have to select the best product. We have world-class production standard, and a 24-hours customer care centre. We constantly check on our product as well as give free trial prior to purchase.

On social contribution, he gives 5-10 per cent of his company's profit to many social and environment causes. Some of these activities include letting his employee volunteers for social works at the Orphanage Home and Home of the Elderly every Wednesday, give donation to orphans and neglected elderly on key public holidays, build school for the highlanders. He does not just give money but he and his employee also help any tasks they can. I regularly goes to the highland villages to teach. Now he can teach nearly all subjects.

Furthermore, he joined the working group ‘Project on Somdej Ya’s Compassion.’ He worked on promoting the project and selecting highland children for scholarship to study healthcare in order to return to be local Health officer. He takes part in the Committee of the Princess Mother's Medical Volunteer, as well as in the Advisory Board of the Sueb Nakasathien Forest Protection Foundation, doing fund-raising. He promotes the dharma teaching of the revered Buddhadasa, and campaign to his employee for blood and organ donation.

I view corporate governance to be the top method in doing business with good moral. It is the middle way which can lead to long term and sustainable wealth. We could be having money, but if we are always greedy, there is not happiness, no

balance. Knowledge and moral must be balanced. Doing business with moral is to use our knowledge and skill to assist those with less knowledge. If we understand this principle of balance, we can apply it.

Next element is entrepreneurial mindset of owner and workers. Based on owner's entrepreneurial mindset, Bathroom Design was built, by seeing the business opportunity from customers in bathroom products in local market. I started as trading business, importing shower cabinet from Australia, and expanded to other bathroom products : faucet, shower and water heater. We build staffs' entrepreneurial mindset providing information from outside-in viewpoints.

During its first two years, Bathroom Design appeared to progress well, but it later stumbled due to the downturn in bubble domestic economy in 1997. As eighty percent of its products were imported, Bathroom Design was also affected in many million Baht in debt from 100% increase in foreign exchange. I (the owner) thought I had to adjust the strategy otherwise the company will not survive. I saw my friend doing export and thought what I should do to create balance. I reduced on import and turned to local sources. At the same time I set up R & D department, in 1998, in the belief that design works have to be differentiated, with different work functionalities.” That was my long-term plan.

The first range of products after the crisis period of Bathroom Design is shower cabinet. The product was custom made according to the bathroom size. I took the order from the customer. What led to the business growth of Bathroom Design was its windsuft which has the different design and functionalities, fit-into-corner type, wall-attached type as well as the type which jet faucet can be placed.

After making decision to take business risks, In 2001, Bathroom Design started its bathtub production, with the clear concept that its product must have design functionalities and technology unlike others. This made Bathroom Design's swirl bathtub different from technology-based imported swirl bathtub from Europe and the US which were high price, while cheap products are mostly imported from China.

In 2003, Bathroom Design built its factory on Khlong 3 Pathum Thani (which is now used for product assembly). The manufacturing factory moved to Khlong 5 while at the same time started to do export, using bathtub as its flagship product. There was Chromotherapy-technology which uses underwater lighting in 256 colour shades for mood therapy. While Bathroom Design was doing well both in local and overseas market, I also lay goal for the company that he built by his own two hands. In 2007, there would be major change to meet the company's growth and uncertainty in the future.

I am proud of what Bathroom Design is today, but in the past I was the core, the pillar of the company. I made my own plan and decision. However, in 2007, was the year of significant change. I started to lay off my hands on the business. That was because from the beginning of the year Bathroom Design had new management organization structure. The five-person Board consisted of a CEO and four others in management positions in different departments: Finance, Production, Sale, Marketing, Service, Procurement and International business.

The assignment of responsibility gave everyone in-depth knowledge, and some of them may do even better than me. Decision is made on majority vote. If someone left the company, the business can still go on. I let everyone can fully express their opinion but stress that the ideas must be out-of-the-box imagination and, if possible, never before seen on earth. Innovative design must meet with market demand to keep the business going. CEO said the prices of sanitarywares and bathtubs can vary from 5,000 Baht to 600,000 Baht, top range.

“Out-of-the-box thinking made designers use their imagination and creativity without border. The ideas then applied to the five areas of their work responsibility : bathtub, sanitaryware, bathroom, faucet and bathroom accessories. Each group can predict the trends worldwide and create trend-leading work-piece by focusing on product differentiation”

What is more important is that every designer must have faith in himself, and ‘chanda’ which is the key success, one of the four foundations for accomplishment. Having chanda means the designer loves and is happy in doing his work. Every second, every breath can be innovation. Innovation is all around us. But if we do not have chanda and only do the work simply because of the government’s support on it, or because it is the trend, or because of greed, there is very small chance that innovation can happen. If a person does his work with love and passion, his work will come out more excellent and more splendid than others.”

Creativity and innovation requires a culture and personal behaviors which are significant determinants of the success of innovation occurrence. Creativity also requires a culture that is different, which encourages cohesion, loyalty, and clear norms of appropriate attitudes and behavior.

Business competency is an important element to generate innovation.

I hold a bachelor degree from Assumption University and Master in Marketing (International Program) from Thammasat University. He later had an idea to set up his own business, seeing the gap in the local bathroom product market.

I combine Buddhism concept in modern management. The first designer that I hired, Mr. Iad Jarurat, has worked with me for the past 10 years and is now Deputy Managing Director. Work experiences of owner and staffs is a strength of

Bathroom Design. Product design is a success story of the company, as the Reddot awards it fetched are equivalent to the Oscar. Its “I-Spa” bathroom product won Reddot Design Award and IF award from Germany, the dream award of designers worldwide. Awards won included Reddot Design Award 2008, IF product design winner 2007 and DE mark Design Excellence Award 2009 from Japan (in bathtub design)

I as head of Designer of Bathroom Design said that, to be able to stand proudly on world stage, he needs three key factors which are outstanding design, excellent product and superior service. Supporting these factors are the all-round

design team, which consisted of 30 young designers, half of which are product and interior designers and another half engineers. They work on inspiration to create products that meet consumers' lifestyle.

As a results of good business networks with outsiders, The company markets its products through HomePro, Boonthavorn and direct sales. Based on experience, they know that in each home, the size of the bathroom varies, hence the varying need. With its products and price-range for upper markets, I has to adjust my business plan. I had planned to produce new brand to manufacture and sell inexpensive products to meet with the economic slowdown, and began to expand the distribution channel, from now through modern trade of about 50 branches nationwide, to discussing with the Siam Cement Group to sell through its HomeMart , with over 500 branches in Thailand. Also, to diversify on risks, the company also sell direct to Housing Project, Condominium and hotel.

Appendix A3
Scripts of Case Study from Expert # 1
Case 1 Wealth Management System Co.,Ltd.

The case study interview question is given below:

Question: Please tell us about the case that you think it creates high impact to the innovation generation.

Here is the script obtained from Mr. Somkiat Chinthammit as Expert #1, owner and CEO of Wealth Management Co.,Ltd.

Answer: The customer may make some complaints but we must be willing to listen. It is the customer who leads us to innovation. Innovation does not come on our own. Therefore, we should involve the customer as soon as possible. The old business model no longer works. Better to get the customer involved as early as possible, either in the development stage or to co-develop. In the software business, if I perceive that this is the smartest customer in this field, I will invite them to co-develop the project, initiating on a software program.

Some of the programs that came from the customer by Ms. Warang of Thai Life Insurance. She already has the bonanza program, upon the first click the status is shown, she wishes to have further program to make the second click on the market risk of the portfolio. At the third click she should be able to tell what is the credit risk of her portfolio. This took us over a year and a half to design the program. What we did was to make the second click runs to Communication Authority of Thailand, which has the financial statement of all the listed companies, past and current, including credit risks plus many other data. These data then comes back to our customer via internet. As mentioned, innovation comes from customer. Innovation can come to whoever discovers the need of customer. Customer is the source of innovation.

From the experience, we learnt that in producing software there will always be loss in production cost which is undetected. No industry can survive if there is too much loss in its production line. We should not forget that 70-80 % of the costs are expenses on prevention, search and improvement of BUG. Therefore, the key is to manage on cost of quality. Our production process must reduce BUG, or remove BUG soonest once found, in order to survive. For sustainable problem-solving, the only option to have the least cost loss is to build on software standard. Nowadays, it is highly necessary for the Information and Technology industry to look for best practice. On the part of WMS, we believe that the standard of CMMI (Capability Maturity Model Integration) of the SEI Institute-Carnegie Mellon University is the best model to reduce loss in production cost, at the same time enable increased bonus to the production team. CMMI standard will make the framework more systemized, increase competitiveness and enhance the market value of the product.

Appendix A4
Scripts of Case Study from Expert # 2
Case Bathroom Design Co.,Ltd.

The world's first bathtub namely 'Together' model

Starting with 'design' aspect which can be seen from its attractive, eye-catching appearance and motive, different from other producers. But as design can be easily imitated, there need to be 'functionalities' aspect that not only respond to current lifestyle but with diverse choices. By applying many industrial knowledge, the company could achieve many new functionalities such as automatic bathtub water-filling by iphone command, or user weight calculation for setting suitable water level, preventing spillage. The ozone therapy technology, which uses the release of ozone through water molecule, helps to increase the efficiency of internal organs.

This is the swirl bathtub with I-SPA technology that can burn calories with suitable temperature, massage system, and other functionalities such as link-up with ipod, on-off control via mobile, temperature control system. The ozone therapy technology, which used the release of ozone through water molecule, helped to increase the efficiency of internal organs. This is the swirl bathtub with I-SPA technology that can burn calories with suitable temperature, massage system, and other functionalities such as link-up with ipod, on-off control via mobile, temperature control system.

This 'Together' bathtub model received an 'IF' international prestige award as the world's first bathtub with four unique elements :

- Design: new design in square shape different from traditional design, recognized as universal design
- Function: Bathtub with the fully filled-up water which flow off side way, giving the feeling of being in an eternity swimming pool

- Material: using the right blend of materials, acrylic and granite , both produce the beautiful look
- Technology: reduce weight through calorie-reduction, with the lukewarm water of right temperature and bubble body massage. This can reduce 200 calorie within 15 minutes.

The innovation was in the form of new type of bathtub which the user will get to enjoy aesthetics of taking a bath, as it features music melodies, lighting, aromatherapy fragrance and massage. It uses ozone therapy technology and it can be converted into hydro-treatment bed for relaxation. The tub is made from acrylic. It can be non-touch activated by the sensor that monitor electromagnetic wave from the wave of a hand. The bed costs 499,000 Baht and is only made by order.

This is one example that innovation is the key to compete in the global market, where there is no longer tax barrier and products from Vietnam and China are pouring in. Price competition will not last. It is the increase of knowledge to turn product into innovation that will enable sustainability. .

Appendix A5
Script of Knowledge Validation from Expert # 1
Case Wealth Management Co.,Ltd.

The validation questions and answers with the expert to validate the knowledge model are shown below:

Question 1

Here is the question to confirm on the process to create innovation. We will start with key factors for innovation creation namely: Common Passion, Personal mastery, Shared Vision, Culture, Entrepreneurial Mindset of Owner and Workers and finally Business Model and Skill. Would you confirm on these elements?

Answer

Yes. I confirm that those factors mentioned above are critical to start innovation creation. In my opinion, each element has its own importance to generate innovation. Among all other elements, “Common Passion” is more prominent than the remaining ones.

Question 2

To create Common Passion, would you need to have in place appropriate selection of workers, and for them to have positive work attitude

Answer

Yes. Common Passion requires Appropriate Selection of Staffs. Staff recruitment must be executed with utmost care. Selected staff must be competent and able to blend with our culture. Each staff’s personal passion is appropriately aligned with organizational objectives. Common Passion also comprises of Positive Attitude of Staffs. The motto representing our attitude, ‘It may be difficult but it is possible’ is posted on the announcement board on the seventh floor of our office. It is unsurprising that people who never become are those who live by the attitude, ‘It may be possible but it is too difficult’. Selected staff must be competent and able to blend with our culture. We therefore require staff with ‘can do’ attitude. To foster the staff’s

positive attitude, emphasis is made through new staff orientation which we make it a two-day program, to drill into them this essential attitude from the very beginning.

Question 3

Is Perpetual Self-learning of Owner and Staffs vital to the attitude on personal mastery?

Answer

Yes. I myself as owner and each staff are encouraged to make progress to acquire new knowledge for self development and, in turn, to give back to society with joy. I would say that the Perpetual Self-learning is important to the attitude on personal mastery.

Question 4

On the process of Shared Vision, does it need to start with the Conception of Vision by Owner, and Effective Communication of Owner's Visions to Staff?

In order to have shared vision, would there have to be Owner and Staff Commitment?

Answer

Yes. Shared Vision needs to start with the Conception of Vision by Owner, and Effective Communication of Owner's Visions to Staff. As owner and CEO, I am the motivator and conductor. The vision is to be the best in research and development in software development. I give guidance and outline my expectation, but I do not manage them. I convert the intangible into tangible. SME owner has an important task to turn staffs' personal vision into common goal, in line with the vision of the enterprise. This requires effective communication of owner's visions to staffs. The owner must align staff attitude towards owner's inspiration.

Definitely, in order to have shared vision, there have to be Owner and Staff Commitment. We build commitment between owner and staffs by crating trust. Owner and staffs commitment is originated by the right mind set and trust between both parties. One of our staffs who now become supervisor expresses his sense of belonging by making a DVD story about Wealth Management Company starting from

the start-up. The content of the story describes how the company develops and progresses until now.

Question 5

To build a culture that is conducive to innovation creation, do you have to make your staff feel as if they are part of your family, that they have freedom and joy in their work, that they are part of knowledge-sharing, and that they are motivated and inspired by being given recognition and award ? Does the Head need to have Clear Operation Guidelines and doing Coaching alongside?

Answer

Yes. As owner, I always interact with staffs in such a way like family members. “Like-Family members” treatment makes our staffs feel working at their homes. Staffs are pleased to help each others when someone needs assistance. Senior staffs are ready to teach junior ones. Corporate culture is called “Wealth 39 Professional Practice”, which is modified from best practice of CitiBank. The corporate culture is used in coaching our staffs. Working atmosphere is classified as freedom and fun. Staffs have freedom to express their opinions and suggestions in meetings and are proud working with our company.

Well-known experts are invited to share knowledge with staffs at all levels to sharpen their skills at works. Project managers take turn to be project leaders. Each manager shares their experiences. There are various projects to foster knowledge sharing among staffs e.g. Senior staffs teach junior ones, Friends help Friends, Wealth Library, Blog and Web.

One interesting activities called “Sapa Gafair”. Staffs are free to talk about anything. CEO inserts contents initially 30% and then marginally increase the contents so that issues discussed is useful for their work operation. Staffs take turn to teach each others. “Teacher of the Year” award is set up to motivate staffs. I as CEO is the first one who gets the award.

Staffs earn rewards e.g. special bonus when they completed a project as member of project team. Some staffs are honored to be guest speaker at universities e.g. Chulalongkorn University on behalf of the company. The Head also need to have Clear Operation Guidelines and doing Coaching alongside. I as CEO must provide clear guidelines of operation to all staffs levels Focus is on corporate culture, “Wealth 39 Professional Practice”. Work ethics are also included in the culture. Final expected output is that staffs process their works in line with operation guidelines.

Question 6

When talking about Entrepreneurial Mindset of Owner and Workers, do you have to consider on the business opportunity, of which those persons have to dare to implement and bare risk?

Answer

Yes. I myself as Owner and staffs must always look for business opportunities. All customers are fund managers who are knowledgeable and smart. Ideas and suggestions received from the customers are valuable and useful. The information is used to improve the company’s software and services, bringing to innovation finally. I must be decisive on how to move company in the direction, which is appropriate for company regarding innovation. The company must be prepared to sustain in long term as occurrence of innovation usually takes a long period of time. In other words, we must bear business risk during the period of time. That is execution by taking risks.

Question 7

When talking about Entrepreneurial Mindset of Owner and Workers, is it necessary to have creativity and to think about Differentiation at all times?

Answer

Yes. Creativity drives innovative processes and outcomes. The failure to cultivate creativity leads to the failure to innovate. Creativity requires each staff to have the capacity to visualize new and different products and processes. Therefore creativity requires the ability to think differently, to continuously learn, to discover and discern ambiguous patterns, to draw inferences and form conclusion in new and different ways.

Question 8

Are the work experiences of the owner and staff both help in forming the Business Competency leading to Skill? Do you take into account that the Business Networks are important to Innovation creation, especially to push for Commercialization?

Answer

Yes. I believe the right mindset is extremely important in getting the organization moving in the right direction. Based on my past experiences as Head of Citibank Private Bank's investment advisory unit, here our definition of wealth has 3 'P' aspects: People, Process and Professional Best. We taught staffs mind map and let them in a contest, with attractive rewards and display their work in the office. Thus, our new staff and those who came before them are well-versed in management, as before they can come up with the mind map, they have to have to first read the whole document, and then convert the policy into tactic such as an outing or contest. Any team that win first place will get the prize but they have to be on stage to present what are their inspiration. The hidden agenda here is that we get them to really understand the whole picture. Once our staffs get it, together with their accumulated past work experiences, they are able to set the goal with the staff in their team that what are the priority of the day, or use it as tool to evaluate the staff. and to achieve company's goals.

I also always take into account that the Business Networks within the Business Model is important to Innovation creation, especially to push for commercialization. Through our good Business networks with financial and non-financial organizations e.g. National Science and Technology Development Agency (NSTDA) and Science Park, help our company to expand our products to various customers.

Question 9

To create innovation, there are two key obstacles: Lack of financial support and Lack of knowledge. To overcome Lack of financial support, this can be done by borrowing from family business, co-founders and commercial banks. To overcome Lack of Knowledge, this can be done by hiring consultants form outside, hiring experienced

staffs as senior staffs and hiring new and high-caliber graduates. In this regard, please verify if my understanding is correct?

Answer

Yes. Sources of funds come initially from co-founders who are family members. It is necessary to have this fund in the early stages. We then gradually increase funds from our operations. At the start-up, Wealth only had a registered capital of one million Baht, with 4-5 staff, working in an old warehouse. From where I was then, I told myself I would keep this company going for several years, until I find out on the software industry. I was only a banker. Software was entirely new to me. The growth was gradual. I kept emphasizing on this to our staff every year, and on what we should do. We have to be clear on our goal, and let it cascade to staff.

To overcome the lack of knowledge, these following actions have been taken. Due to our products closely link with rules and regulation of commercial bank and Bank of Thailand, we hire consultants from outside to strengthen our teams. In addition, we employ experienced staffs, for example, our Managing Director has more 15 years experiences in banking sector. New and high-caliber graduates from well-known universities e.g. Sirindhorn Institute of Technology, Thammasat University intend to work with us due to our good reputation in the software market.

Question 10

Do you agree that innovation creation actually takes place when there is novelty and commercialization? In the case that it does not fall in that category/pattern, should there be improvement/adjustment to lead towards innovation creation by adopting these methods: additional education, orientation to bring workers closer to customers, staff challenging, expert outsourcing, encouragement through optimistic viewpoints, access risk in work program and revision of core competency?

Answer

Yes. I agree that innovation creation actually takes place when there is novelty and commercialization. It is usually taken a period of time, mostly long term ranging from 3-5 years, to complete a new product and make it commercial therefore sufficient knowledge and financial support is critical to our achievement.

When the criteria of innovation generation are not fulfilled, the followings actions are taken. Company education is essential before any change program is rolled out. Additional Education is as much about mindset as it is about skills. Shape the way employees see the world, and their actions will be changed. The closer our company gets to its customers, the easier it is for us to the commercialization. Orientation to bring customer close to customer is an important activity. Staff challenging particularly for staffs at supervisory levels is an essential action. I myself as owner am responsible for identifying improvement opportunities, while line managers are trying to run business. This caused a great deal to tension within the company. And although tension is often thought of as undesirable, however this debate and discussion unleashed creativity in our company.

Expert outsourcing is next action which is taken. Our company needs to go out and find help in those areas where we have insufficient expertise – for example, with the techniques of change management. Most importantly, outside help can help us surface and challenge assumptions that may be invisible to the rest of the organization. As CEO, I always encourage my staffs through optimistic viewpoints. The role of the CEO, besides being the lighthouse shining the way, we have to also be the battery or the motivating factor. CEO tells staffs that it will not be easy to compete on international basis, however, do not afraid to fail. The sooner you fail, the faster you will reach success. This attitude is posted on the 7th floor of our office. “It may be difficult but it is possible. The revision of core competency is an important action, which is taken nearly a year. Without our core competency, we have no way of knowing, which is the vital knowledge for our company.

Appendix A6
Script of Knowledge Validation from Expert # 2
Case Bathroom Design Co.,Ltd.

The validation questions and answers with the expert to validate the knowledge model are shown below:

Question 1

Here is the question to confirm on the process to create innovation. We will start with key factors for innovation creation namely: Common Passion, Personal mastery, Shared Vision, Culture, Entrepreneurial Mindset of Owner and Workers and finally Business Model and Skill. Would you confirm on these elements?

Answer

Yes. All elements above are important to create innovation. In my opinion, shared vision is outstanding factor compared with the others. We need team members or staffs who commit with our company's policy and business goals.

Question 2

To create Common Passion, would you need to have in place appropriate selection of workers, and for them to have positive work attitude

Answer

Yes. To make common passion happened, most of our new recruits are newly graduates. We do not take in those with lots of experience. First is to accept the old-hands here. Secondly, they have to be open to new ideas. We must select innovators with the least ego and with the most willingness. They have to possess moral fundamentals, with gratitude, to bring pride to their parents. In addition, they must have positive attitude with personal dedication to innovation.

Question 3

Is Perpetual Self-learning of Owner and Staffs vital to the attitude on personal mastery?

Answer

Yes. When we run our business, we try to manage it the Buddhist's way. Failures there were, but I am glad each time I run into failure, as I know this is not the right way to go, and that I will find a new way. The first key success to innovation is willingness and perseverance. The second, effort, will come automatically, and not by command, when we love what we do and when it is treated like your hobby. The third key success, active thought, conscience and concentration, can be achieved when you put your mind into your work. The last key success to innovation is reasoning, meaning frequent monitoring and review. Altogether, this is, in fact, the principle of modern management. Acquiring new knowledge is necessary for both owner and staffs.

Question 4

On the process of Shared Vision, does it need to start with the Conception of Vision by Owner, and Effective Communication of Owner's Visions to Staff?

In order to have shared vision, would there have to be Owner and Staff Commitment?

Answer

Yes. We start the process of shared vision with the conception of vision by owner followed by effective communication of owner's vision to staffs. The company's vision for 2020 is to be the leading innovator, among the world's Top Five, through emphasis on design, technology and usability. The company adheres to the corporate governance rules and the concept of sufficiency economy. In working towards sustainability, the company continually enhances value for consumers, employee, society, and the environment.

I told my staffs to view our customers as our parents, the people that you would like to give the best of products. All of our staff must have this understanding. I drill into them daily, just like morning talk. With this 'customers are our parents' view in

mind, when there is a customer case, the staff will be willing to accommodate their request, even if it means a loss, if it will make the customer happy.

Moreover, joint commitment of owner and staff is the important driver to have shared vision. Here we have a campaign to do good for others. Every Wednesday, some of our staff will be doing social works at the orphanage and the homes for the elderly. On Friday through Sunday, some of them will practice dharma at Panya Nantaram temple. Each year, they will be on voluntary camping trip to build school, or join with the team of voluntary doctors, or do activity with the Sueb Nakasathien Foundation on forest protection. Our staff has to join in these tied-in activities, which they enjoy. Corporate culture can not be built within a couple of years but it takes 10-20 years, with the corporate leader as a leading example.

Question 5

To build a culture that is conducive to innovation creation, do you have to make your staff feel as if they are part of your family, that they have freedom and joy in their work, that they are part of knowledge-sharing, and that they are motivated and inspired by being given recognition and award ? Does the Head need to have Clear Operation Guidelines and doing Coaching alongside?

Answer

Yes. We make them feel like working at their homes. Everybody (as sibling) is in a brotherhood. This is another innovative thinking. I show it to them the owner is not greedy. When their child is sick, even if the insurance does not take them, we will. Theses people are like relatives to us. You have got to win them at heart. We also give money to help their sick parents. Long-time staff will be given priority to such assistance. Each company may have different way of helping. To build a culture that is conducive to innovation creation, we have to grow the bond of brotherhood with our people and build them up. Junior staffs recognize supervisor's prestige and get good care from senior workers.

I always provide coaching to staffs. . View the customer as it they are our parents, to whom we want to give the best products. This attitude is constantly drilled

to our staff just like we are giving them daily morning talk. When they adopt this attitude, they become more compromising when dealing with customers, the same way as when they treat their parents. It may mean a loss sometimes, but fine if it makes the customer happy. Middle level staffs play major role to teach lower level ones. I said to my staffs that I work every day and I am happy. Work and rest are the same to him. I believe freedom and fun atmosphere leading to happiness, can be created as a part of corporate culture to facilitate innovation. Staffs are free to express their ideas and suggestion. As CEO, I act as role model in sharing knowledge with all staffs. They all get opportunity to showcase their ability and receive awards of recognition. Clear operation guidelines are given to staffs to make them understand how our business is managed.

Question 6

When talking about Entrepreneurial Mindset of Owner and Workers, do you have to consider on the business opportunity, of which those persons have to dare to implement and bare risk?

Answer

Yes. Based on my entrepreneurial mindset, Bathroom Design was built, by seeing the business opportunity from customers in bathroom products in local market. I intend to take risk since the company was set up. We provide information from outside-in viewpoints. After making decision to take business risks, In 2001, Bathroom Design started its bathtub production, with the clear concept that its product must have design functionalities and technology unlike others.

Question 7

When talking about Entrepreneurial Mindset of Owner and Workers, is it necessary to have creativity and to think about Differentiation at all times?

Answer

Yes. Based on owner's entrepreneurial mindset, Bathroom Design was built, by seeing the business opportunity from customers in bathroom products in local market. After making decision to take business risks, In 2001, Bathroom Design started its bathtub production, with the clear concept that its product must have design

functionalities and technology unlike others. This made Bathroom Design's swirl bathtub different from technology-based imported swirl bathtub from Europe and the US which were high price, while cheap products are mostly imported from China. The decentralized responsibility gave everyone particularly at senior levels in-depth knowledge, and some of them may do even better than me. This is my preparation to manage business risks.

Question 8

Are the work experiences of the owner and staff both help in forming the Business Competency leading to Skill? Do you take into account that the Business Networks are important to Innovation creation, especially to push for Commercialization?

Answer

Yes. In forming business competency, work experiences from owner and staffs is helpful very much. I combine Buddhism concept in modern management. The first designer that I hired, Mr. Iad Jarurat, has worked with me for the past 10 years and is now Deputy Managing Director. Work experiences of owner and staffs are the strength of Bathroom Design. Product design is a success story of the company, as the Reddot awards it fetched are equivalent to the Oscar. Its "I-Spa" bathroom product won Reddot Design Award and IF award from Germany, the dream award of designers worldwide. Awards won included Reddot Design Award 2008, IF product design winner 2007 and DE mark Design Excellence Award 2009 from Japan (in bathtub design)

Business Networks are important to Innovation creation, especially to push for commercialization. As a results of good business networks with outsiders, The company markets its products through HomePro, Boonthavorn and direct sales. Based on experience, they know that in each home, the size of the bathroom varies, hence the varying need. With its products and price-range for upper markets, I has to adjust my business plan. I had planned to produce new brand to manufacture and sell inexpensive products to meet with the economic slowdown, and began to expand the distribution channel, from now through modern trade of about 50 branches nationwide, to discussing with the Siam Cement Group to sell through its HomeMart ,

with over 500 branches in Thailand. Also, to diversify on risks, the company also sell direct to Housing Project, Condominium and hotel.

Question 9

To create innovation, there are two key obstacles: Lack of financial support and Lack of knowledge. To overcome Lack of financial support, this can be done by borrowing from family business, co-founders and commercial banks. To overcome Lack of Knowledge, this can be done by hiring consultants form outside, hiring experienced staffs as senior staffs and hiring new and high-caliber graduates. In this regard, please verify if my understanding is correct?

Answer

For the first obstacle: lack of Financial support: I had to struggle to borrow money from commercial banks to set up the first factory on Rangsit Khong 3 and on Rangsit Khong 5 allthough there was fairly good response from the customers.

For lack of Knowledge: Since the set-up of our company, new and high-caliber graduates are chosen to join our company. We avoid recruiting high-experienced workers. We develop our own staffs' skills starting at entry levels. A few consultants from outside are invited to work with us.

Question 10

Do you agree that innovation creation actually takes place when there is novelty and commercialization? In the case that it does not fall in that category/pattern, should there be improvement/adjustment to lead towards innovation creation by adopting these methods: additional education, orientation to bring workers closer to customers, staff challenging, expert outsourcing, encouragement through optimistic viewpoints, access risk in work program and revision of core competency?

Answer

Yes. To justify that innovation is generated, there are two requirements, which are novelty and commercialization. I therefore take the role of head of designer of our company. However, our designers are free to think and propose new ideas. To our policy, designers also must place importance to 'social' aspect.' Its product must

read the need of consumer and with all the desired functionalities. Example is the I-Tube basin Flexible Faucet, light polymer faucet which can change water mode or turn on-off simply by touch. This is delightful for customer's behavior, such as it can change to spraying water for hand-free facial cleansing. Some product came out our effort to solve problem, such as warning equipment for the elderly in the form of a wristband that send signal to the device which can unlock the door, and it also send message to caretaker away from home, or activate siren past cordless amplifier to notify people at home. These products are successfully sold to niche customers.

In case we fail to generate innovation, we take the following actions. Firstly, we provide additional education to our staffs by creating social contribution and mindset encouragement. Every Wednesday, CEO gives permission to a group of his employee to make social contribution such as giving lesson to children, giving haircut, providing food, setting bathroom fixtures for the home of the elderly. At the office, there will be donation box which the company will double the donation amount. For example, if there are 50 Baht in the donation box, the company will add another 50, or if there are 20,000 Baht, the company gives 20,000 Baht more. "My perspective on happiness is that the more you view happiness as materials and money, the more happiness will run away from you. The more you reach for such type of happiness, the more it will escape you. In reality, happiness is in our heart, and it comes from being sufficient." I also enhance experience and skills for staffs continuously by providing opportunities for staffs to practice on the jobs. Then those trained staffs are planned to retain with company by inspiring them sense of ownership.

Secondly, we provide orientation to bring staffs closer to customers. Orientation to new staffs mostly new graduates is an important task of owner. To view customer as it they were parents is our company's philosophy. New and young staffs have opportunities to work in a team of senior staffs like brothers and sisters.

Thirdly, staffs challenging is usually executed. There are two important teams behind the success and 14 awards garnered in 2 years of Bathroom company. These are teams of designers and engineers, about 30 of them. ‘Intelligent Swirling Bathtub,’ an outstanding product which has won 4-5 world-class awards. In 2006 we submitted this technology from Thailand to contest on world stage in Germany, and successfully won first place in the category of Bathroom products. From then on, the company developed many other type of products that went on to many world competitions. Our company won over 20 awards within three years time. These world-class awards made this Thai brand well-known internationally and expanded its market to over 20-30 countries all over the world.

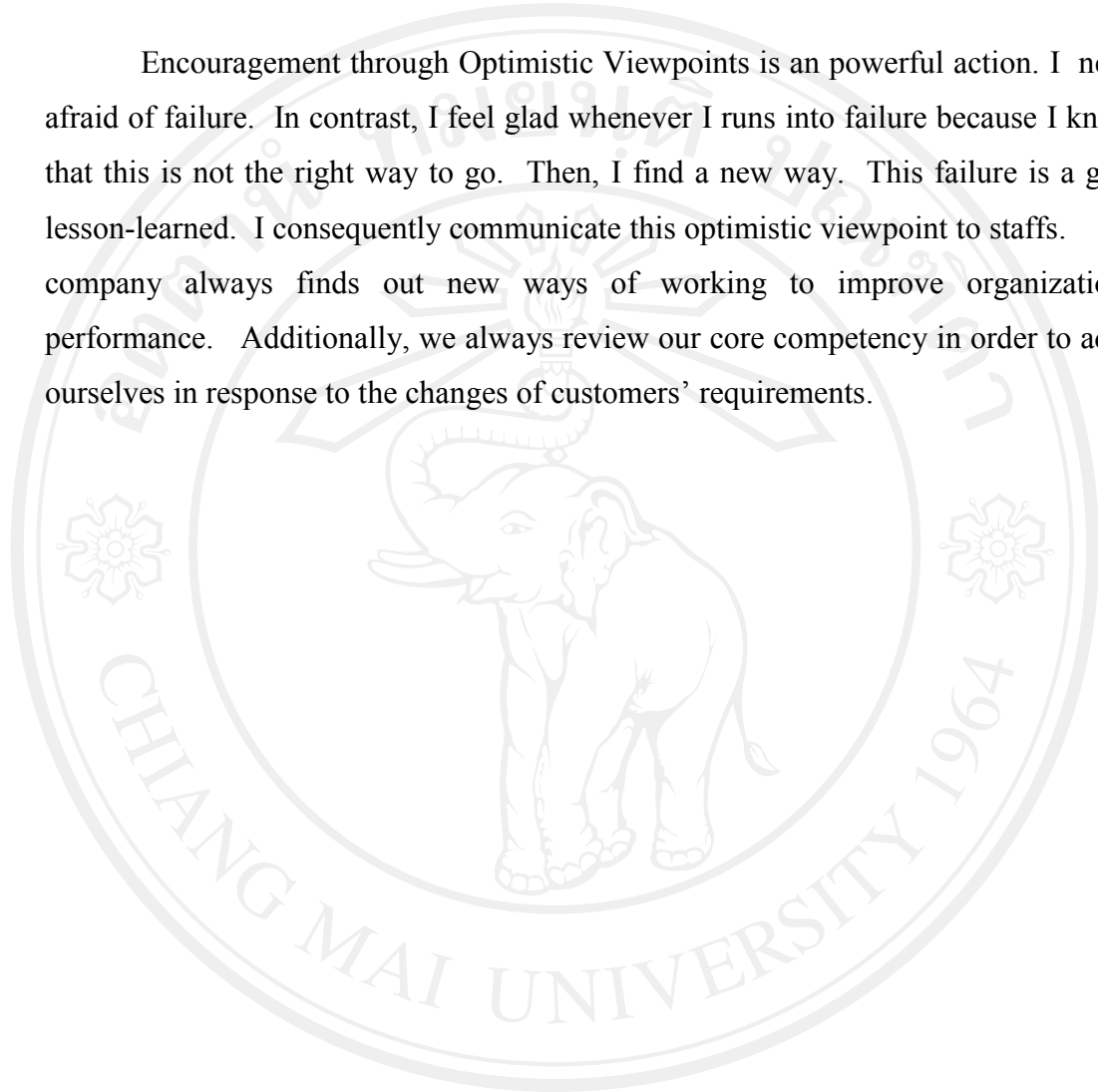
Next, we uses expert outsourcing to strengthen our team. I recognizes that some areas of operations requires expertise from smart people outside company such as product design and business management. Outside experts in design and business management are brought in to coach staffs on particular issues e.g. trend of product design in global market.

I always restudy the Organization Guideline for staffs. When you run a business, try to manage it the Buddhist’s way. It can make you a rich man. There are three principles that will make you truly rich : first, to produce it ; second, to use it appropriately ; third, to take the rest to assist others. These three principles altogether will bring wealth. However, it was told that being rich does not mean wealthy, but nobleness.

“The principles of Corporate Governance, Corporate Social Responsibility (CSR) and Sufficiency Economy all share the same gold, which is to optimize profit and to make sustainable return, not just in the form of money but also in the form of happiness. Every man needs happiness. If the organization is managed in this concept, it will bring happiness to the giver and to our customers.” This is not only about being responsible towards our stakeholders, but also being responsible towards the community, the society and the environment. Not only does he apply the Buddhism to modern management and to the principle of corporate governance, I also

adds the concept of ‘Sufficiency Economy’ to lead his organization on long term sustainability.

Encouragement through Optimistic Viewpoints is an powerful action. I never afraid of failure. In contrast, I feel glad whenever I runs into failure because I knows that this is not the right way to go. Then, I find a new way. This failure is a good lesson-learned. I consequently communicate this optimistic viewpoint to staffs. Our company always finds out new ways of working to improve organizational performance. Additionally, we always review our core competency in order to adapt ourselves in response to the changes of customers’ requirements.



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Appendix B1
Script of Model Validation from Expert # 3
Case CT Asia Co.,Ltd.

Question 1

Here is the question to confirm on the process to create innovation. We will start with key factors for innovation creation namely: Common Passion, Personal mastery, Shared Vision, Culture, Entrepreneurial Mindset of Owner and Workers and finally Business Model and Skill. Would you confirm on these elements?

Answer

Yes. All above elements are essential to generate innovation in our company. Everything that is about innovation must start with something new. To have something new, there has to be great desire. But merely desire is not enough, there has to be passion, and lots of it, to differentiate with others. Not to forget that at this very same time, there are new things happening around the world. Competing on innovation is not only among 60 million Thais, but altogether among 3 billion world population.

Question 2

To create Common Passion, would you need to have in place appropriate selection of workers, and for them to have positive work attitude?

Answer

Yes. Common passion is the first key essence. It is the philosophy or common passion. This passion is the one that drives us to make greater things and continue at it. Appropriate selection of workers is very important. As for my company, I intended to make it diverse, starting with myself as Marketer, I searched for outstanding engineers, those that can bring my dream to life. I treat this as crucial, as without them, there is no development. And only the best ones will do, not just any engineers. We need those that will enter the battlefield with us side by side. In my company, I hold 50% stake and the engineers another 50%. That was how we set up an SME company. The way this company was built is how the Head is, that's how the

followers are. We all prove ourselves. Another important dimension is about SME. Most SMEs only has one, or at the most two, highly-capable people. And most of these people are in the same line of work, such as engineers with friends in their same fields. Thus, it is the lack of diversification. Common passion also consists of positive work attitude. In the organization structuring, we have to understand this concept. Oftentimes we see that in SME business, there are quarrels and disagreements between them. But in my case there was none. When we started, we were clear on what we wanted to do and we believe that we can do. I have all the dreams but if without the excellent engineers, I would not start on it.

Question 3

Is Perpetual Self-learning of owner and workers vital to the attitude on personal mastery?

Answer

Yes. The attitude on personal mastery relies on perpetual self-learning of owner and workers. I will clear the works that are operational issue and I will not handle any of them but to form a team to do. I have to free up myself to be visionary, to do networking with other important players and partners. I treat it as important mission. No one will tell me this, I have to brainstorm by myself on how do I start and with whom. We need to use our brain – go talk to people, attend seminars, read – to make it saturated. At that point, we see it all and here we go.

Question 4

On the process of Shared Vision, does it need to start with the Conception of Vision by Owner, and Effective Communication of Owner's Visions to Staffs?

In order to have shared vision, would there have to be Owner and Staff Commitment?

Answer

Yes. First is the conception of vision by owner. After reading a lot on the future, when I come to take up on robot, I have to brainstorm on the future and of the industry in Japan, as I have earlier analyzed to you. I need to see how great, how popular it is. When I read that Bill Gate say “one home- one personal computer”, what I say “one home- one robot”. This kind of saying is the vision. It is the future

(not yet happening) It will happen, only we do not know when and who will be the inner there. There is no definition. That is my duty, thinking on innovation and finding the moment of vision

Next, communication of owner's vision to staffs must be effective. I tell my staffs what the goals and sub-goals are It is as if you are the reigning king. You need to tell your troupe how you will be fighting with your enemy. Everyone wants to fight, but we need to tell them what the goal is, and build up the joint goal for the shared purpose. I could be looking very far ahead but when I talk to my team I digest this goal for them.

In order to have shared vision, there would have to be Owner and Staff Commitment. There is a teacher at the Kasetsart University, he wants to do the robot's hand that can shake hand, he has made it to the certain level and he has a Ph.D. Therefore, about our vision, when we set it up there are other factors that enhance and speed things up. Then we do the blueprint together. In simple words, we orchestrate all things, internal and external, to make it reaches the goal. No one can do it single-handedly. They are pleased with me too because they have never thought what could be the use of their invention. But when it combines with ours, we create the stage where they can shine.

Question 5

To build a culture that is conducive to innovation creation, do you have to make your staff feel as if they are part of your family, that they have freedom and joy in their work, that they are part of knowledge-sharing, and that they are motivated and inspired by being given recognition and award ? Does the Head need to have Clear Operation Guidelines and doing Coaching alongside?

Answer

Yes. The "like family members" concept is used for knowledge transfer in our company. I always work closely with staffs at all levels on "shoulder on shoulder" and encourage "friends help friends" method in our company. I use coaching method when I teach my staffs. Next is "Freedom and Fun". My employees and I are crazy

people. We head to the same direction. Our craziness is a mutual hypnotization. We will make it rise and both CT ASIA and Thailand will be proud of it. There is no politics in this organization. I encourage staffs to think freely and are joyful during their work at our company. Once it was crazily said that our robots will beat Mosimo (robot produced by a Japanese company). When it has become like this, the environment has its own momentum. Then it is natural to receive new ideas. Knowledge sharing is executed through on the job training like brother to brother practice. I myself also act as role model in sharing knowledge. On staff motivation by rewarding, we give company's shares to the key mans. Let them hold the property. We also give regular salaries and bonuses to the other employees though. The last is "clear operation guidelines". We don't have a balanced score card nor sigma nor anything similar. I see it as being too formal. I don't want it to be a hurdle. My team is like a special combat unit. We raid and win. We don't do formal stuff like the military headquarters. In other words we **make staffs clearly understand the ways to work.**

Question 6

When talking about Entrepreneurial Mindset of Owner and Workers, do you have to consider on the business opportunity, of which the SME himself has to dare to implement and bare risks?

Answer

Yes. The entrepreneurial mindset is an important element. I provide information to staffs from outside-in viewpoints to motivate their business opportunity seeking. I consider on the business opportunity and execution by taking risks. However we have to face with business risks due to uncertainty. Hence, we also prepare to manage the risks.

Question 7

When talking about Entrepreneurial Mindset of Owner and Workers, is it necessary to have creativity and to think about Differentiation at all times?

Answer

Yes. We need creativity and differentiation at all time. There are two factors that affect the pace of future business – our team and our competitors. Most of our

competitors are giants. So, we must be creative and differentiate our products to gain competitive advantage. Moreover, what we need to be capable of is to read the competitors' mind. Don't be afraid. The bigger the competitors are, the more weaknesses they have. Everyone has weakness. It depends on whether we can find it. That is business opportunity. We therefore require ability to think in different ways to discover new patterns.

Every organization has innovation which is normally generated by the leader, like Steve Jobs or Bill Gates. These people must be able to read the future and translate it. How were these people born and how do they have high creativity? For me, it started by being good at drawing. When I entered a competition, I had to think within 2 hours what the topic was and what to draw. I needed imagination. I was commented by some senior artists that I should not draw with meanings. The real artists aren't like this, but I am. So, creativity is not hard to be generated. What matters is whether you practice it. This refers to creativity and product differentiation.

Question 8

Are the work experiences of the owner and staff both help in forming the Business Competency leading to Skill? Do you take into account that the Business Networks are important to Innovation creation, especially to push for Commercialization?

Answer

Yes. Work experiences of owner and workers and business networks help us develop Business Competency. To achieve our business goals, I direct workers to use their experiences on the right tasks.

Yes. To push for Commercialization, Business Networks are important to Innovation creation. I build good relationship with outside stakeholders both government units and private business associations. I worked at headquarter of GE Capital which is considered the best enterprise in the world. Thus, I was the one who saw best products first. Then the idea of a call center popped up. Which product should I have produced first? What I found at GE initially was the call center management science which includes how-to, processing, and software. What I

brought back was how to run them all in total solutions. That's what we call Innovation. Our first product was know-how. I don't just sell software, but I sell a consulting-approach solution for customers and educate them how to operate a one-stop customer service center. That was our first software which is called Infocentric. It was trendy at the time and was exciting by its concept since there was no such a solution before in any organization no matter how big it is. In the first period, the features were the connection with the PABX booth. The connection was in terms of data – about how many incoming calls and awaiting calls. These data were shown as graphics on screen. The achievement is also resulted from our staffs' experiences. Business networks are much helpful for us to successfully sell our products to customers since the first version until now.

Question 9

To create innovation, there are two key obstacles: Lack of financial support and Lack of knowledge. To overcome Lack of financial support, this can be done by borrowing from family business and co-founders. To overcome Lack of Knowledge, this can be done by hiring consultants form outside, hiring experienced staffs as senior staffs and hiring new and high-caliber graduates. In this regard, please verify if my understanding is correct?

Answer

Yes. The set-up fund comes from myself and my friends as co-founders. When I started a company, I invited my rich friends to be the owner. They established the company and build the software. "You pay, and I work." They are the first guinea pigs who did a real-estate information service center. I built CT ASIA for them to be our customers. What did I get? First – customers, Second – a company, and Third – software. I got three at the same time. We lost over 200,000 baht during the first year but started to make some profits since the second year due to our new project. For Thai people, I was the first who operated a call center. I never borrow from a bank. I circulated the cash from my projects. I didn't finance my project by any capital. I didn't wait until the software was fully developed to sell it. I sold and developed it at the same time. That's how we didn't need any help from a bank.

Our product is just simply better and cheaper. The only issue that they didn't trust that Thai people could do it well. So we proved ourselves by collecting track record. In the third period, the product was highly developed. It was the era of being international. Then I talked with the public sector. If you want to see Thai products going international, you must be supportive. I was funded by SIPA and Department of Export Promotion. I was the first who told them to open the enterprise software category. Then I was funded by the government for 3-4 million baht a year. Now I have 10-20 companies in total. The offices in Ho Chi Minh and Tokyo have been established. It has become internationalized. And that's where we are now. For lack of knowledge on engineering, we usually solve the problem by hiring high-caliber graduates. I have all the dreams but if without the excellent engineers, I would not start on it.

Question 10

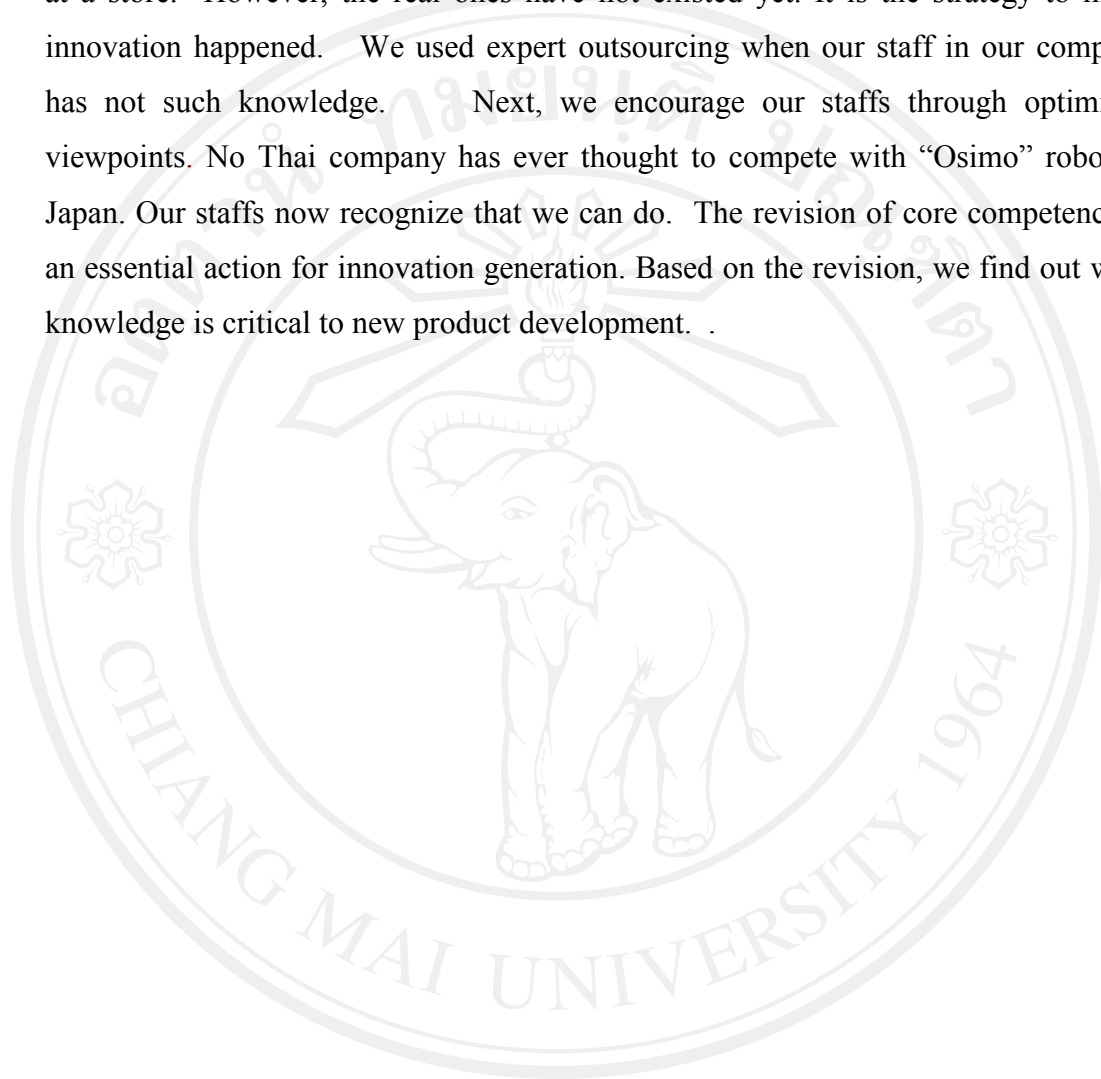
Do you agree that innovation creation actually takes place when there is novelty and commercialization? In the case that it does not fall in that category/pattern, should there be improvement/adjustment to lead towards innovation creation by adopting these methods: Additional Education, Orientation to bring workers closer to customers, Staff Challenging, Expert Outsourcing, Restudy The Organization guideline, Encouragement through Optimistic Viewpoints, and revision of core competency ?

Answer

Yes. I agree. Innovation generation occurred when there is novelty and commercialization. In the case when the criteria of innovation generation are not fulfilled, we executed the actions as follows.

Firstly, "additional education" is provided for our staffs by attending training courses usually at Software Parks. For "Orientation to bring workers closer to customers", our staffs are trained to observe and find out problems and new requirements from customers. This is very good inputs for new ideas and creativity, which could be developed too new products. Next is Staff Challenging. To challenge staffs, brochure of new challenging product i.e. serviced robot, is done in order to

make it become visible as if it already exists. If there are only words, staffs can not figure out what it is going to be like. It is a brochure so it can be seen, s if they saw it at a store. However, the real ones have not existed yet. It is the strategy to make innovation happened. We used expert outsourcing when our staff in our company has not such knowledge. Next, we encourage our staffs through optimistic viewpoints. No Thai company has ever thought to compete with “Osimo” robot of Japan. Our staffs now recognize that we can do. The revision of core competency is an essential action for innovation generation. Based on the revision, we find out what knowledge is critical to new product development. .



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Appendix B2
Script of Model Validation from Expert # 4
Case HiGrimm Co.,Ltd.

Question 1

Here is the question to confirm on the process to create innovation. We will start with key factors for innovation creation namely: Common Passion, Personal mastery, Shared Vision, Culture, Entrepreneurial Mindset of Owner and Workers and finally Business Model and Skill. Would you confirm on these elements?

Answer

Yes. I confirmed that the elements are necessary to generate innovation. Her is my passion. In the industrial area, there is an environment surrounding it, the technical term would be industrial ecology. In that regard, we see that everything is relate to one another. The waste from the first place will create waste in the second place, leading to costs in the industry sector. Our idea started from here, then we began to think that the problem that is difficult to overcome in the industry is how to treat the fuel waste.

Question 2

To create Common Passion, would you need to have in place appropriate selection of workers, and for them to have positive work attitude?

Answer

Yes. The first element is Common passion. In my view, for the entrepreneur to do business and come up with innovation, the main factor is passion. I decided to start business by employing a smart engineer. We learn about the technology from Germany and those of other countries, and found some interesting points. We then brought this possibility for discussion and some scientists and researchers from National Science and Technology Development Agency together to start our work with common passion. Appropriate selection of workers, and for them to have positive work attitude is therefore important.

Question 3

Is Perpetual Self-learning of owner and workers vital to the attitude on personal mastery?

Answer

Yes. The perpetual self-learning is vital to the attitude on personal mastery. The scientists may have come up with some but they are dried technology. I was the one who gave them these ten formulas. They always have to learn new technology.

Question 4

On the process of Shared Vision, does it need to start with the Conception of Vision by Owner, and Effective Communication of Owner's Visions to Staffs?

In order to have shared vision, would there have to be Owner and Staff Commitment?

Answer

Yes. We start with the conception of vision by owner. I am the Translator on it by communicating to our scientists. I was lucky I was close to the market and to close to the technology. That was the opportunity. I was wild and kept trying, if we ran into error, we try other things. Next is commitment, which is an important element to create shared vision.

Question 5

To build a culture that is conducive to innovation creation, do you have to make your staff feel as if they are part of your family, that they have freedom and joy in their work, that they are part of knowledge-sharing, and that they are motivated and inspired by being given recognition and award ? Does the Head need to have Clear Operation Guidelines and doing Coaching alongside?

Answer

Yes. We use the "like family members" concept for knowledge transfer. Our staffs have freedom to think joyfully to solve their problems. The way to solve problem in my company is not stressed on command, but I would rather let them think first and find their solution. That is already considered a development. If everyone waits for order, this would not be a learning organization. Knowledge sharing is implemented like brother to brother practice. All supervisors as head, need to have clear operation

guidelines and doing coaching alongside. Most recently, I caused sleeplessness for two Ph.Ds. I challenge them do what ever with joy. but on the show day, make people see the bacteria digesting the fuel on real time. This can be seen now, but just how clearly seen do we want to make it out. I think this is important, that we know how to give advice to each person. If this is how we think, we can do capacity-building on our team members. We also give them recognition and rewards. . I am willing to pay. if I think they can contribute for us, I will give them in full.

Question 6

When talking about Entrepreneurial Mindset of Owner and Workers, do you have to consider on the business opportunity, of which the SME himself has to dare to implement and bare risks?

Answer

Yes. . With entrepreneurial mindset we always seek business opportunities. The principle of SWOT is to know ourselves and to know others. S and O are for proactive, strength and opportunity. W and T is for reactive, weakness and obstacles. How would we overcome obstacles, we need to prevent on them. That is to know others as well as ourselves. Therefore we need to think all the time, what if we do this, what is our strength, how can we market. Do we have the opportunity on this, are there markets for it? This is what we do.

Question 7

When talking about Entrepreneurial Mindset of Owner and Workers, is it necessary to have creativity and to think about Differentiation at all times?

Answer

Yes. When they see the customer they have to analyze them. That is how I teach the basis of learning, when they have a problem. To view the customer in an analytical way. This is how one learns. Working is like Kaizen, there has to be a mixture to it. What is today and what will be for tomorrow, how does it improve. What would be for next year. There have to be a goal. At the Head of the team level there also have to be a goal. As such, there have to be constant learning. Out of the blue I might give them some assignment to solve. For the engineer, I ask them to find new theories.

What there is now I find it to be outdated. If you are my competitor, what would you do. We have to make constant change. We are competing with ourselves to have creativity and think on differentiation at all time.

Question 8

Are the work experiences of the owner and staff both help in forming the Business Competency leading to Skill? Do you take into account that the Business Networks are important to Innovation creation, especially to push for Commercialization?

Answer

Yes. Business competency comes from work experiences of myself and workers . Business network is important to create innovation. We can respond to the demand of the customer. Our customers are not stupid. They are good to us, they believe in us and they recommend us to others through words of mouth. Our customers are our friends. I view it in the religious way. I deem this to be important to perform as good man. .This brings us to commercialization.

Question 9

To create innovation, there are two key obstacles: Lack of financial support and Lack of knowledge. To overcome Lack of financial support, this can be done by borrowing from family business and co-founders. To overcome Lack of Knowledge, this can be done by hiring consultants form outside, hiring experienced staffs as senior staffs and hiring new and high-caliber graduates. In this regard, please verify if my understanding is correct?

Answer

Yes. From the beginning, we borrowed from the bank. I do not want money problem. I separate my family's money from business. When the business grew, Kasikorn Bank gave us another 10 million Baht loan. We hire both consultants, senior staffs and high caliber graduates to overcome lack of knowledge.

Question 10

Do you agree that innovation creation actually takes place when there is novelty and commercialization? In the case that it does not fall in that category/pattern, should

there be improvement/adjustment to lead towards innovation creation by adopting these methods: Additional Education, Orientation to bring workers closer to customers, Staff Challenging, Expert Outsourcing, Restudy The Organization guideline, Encouragement through Optimistic Viewpoints, and revision of core competency ?

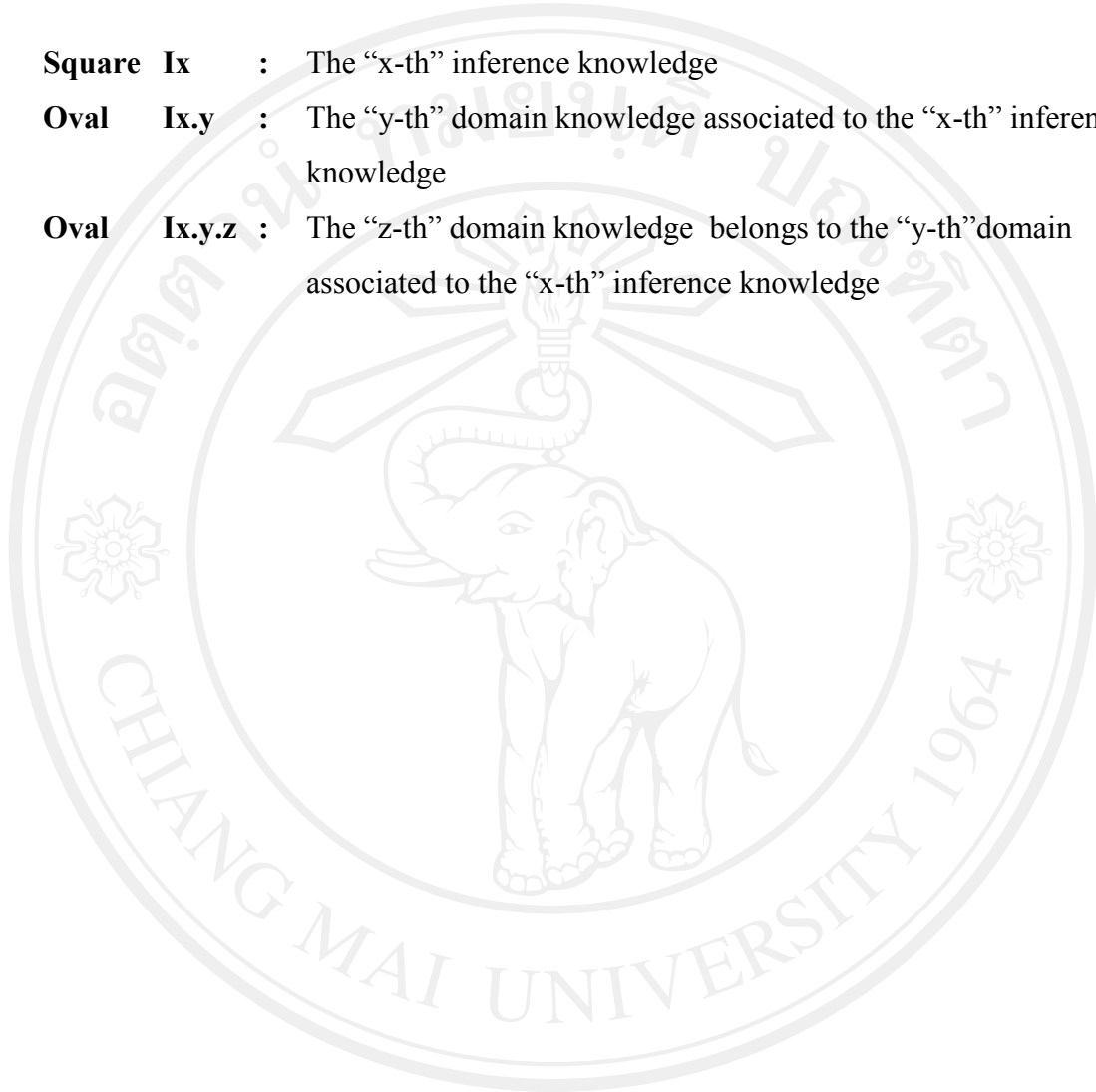
Answer

Yes. Innovation generation happened when there is novelty and commercialization. When the criteria is not met, the actions below is practiced. as follows.

Firstly, “additional education” is provided for our staffs by attending training courses usually at Software Parks. For “Orientation to bring workers closer to customers”, our staffs are trained to observe and find out problems and new requirements from customers. This is very good inputs for new ideas and creativity, which could be developed too new products. Next is Staff Challenging. To challenge staffs, brochure of new challenging product i.e. serviced robot, is done in order to make it become visible as if it already exists. If there are only words, staffs can not figure out what it is going to be like. It is a brochure so it can be seen, s if they saw it at a store. However, the real ones have not existed yet. It is the strategy to make innovation happened. We used expert outsourcing when our staff in our company has not such knowledge. Next, we encourage our staffs through optimistic viewpoints. No Thai company has ever thought to compete with “Osimo” robot of Japan. Our staffs now recognize that we can do. The revision of core competency is an essential action for innovation generation. Based on the revision, we find out what knowledge is critical to new product development.

Appendix C1
Notations in Transcript

- Square I_x** : The “x-th” inference knowledge
- Oval $I_x.y$** : The “y-th” domain knowledge associated to the “x-th” inference knowledge
- Oval $I_x.y.z$** : The “z-th” domain knowledge belongs to the “y-th” domain associated to the “x-th” inference knowledge



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CURRICULUM VITAE

- Name** Mr. Veerachai Khuprasert
- Date of Birth** 13 October 1958
- Education**
- Master of Business Administration, December 1984
Central Missouri State University, USA
 - Bachelor of Arts (Economics and Marketing), September 1980
Thammasat University
- Employment**
- Board Member
Foundation for International Human Resource Development,
Thailand
 - Director Knowledge Enhancement and Development
Office of Small and Medium Enterprises Promotion
 - Director Mahidol Management Education Center
Mahidol University
 - Assistant Vice President
Deutsche Bank Ag
 - Manager Project Development
Thai Military Bank Public Company Limited
 - Marketing Analyst
The Siam Cement Public Company Limited