Informal Learning for Incremental Product Development and Marketing: A Thai Textile Industry Case Study

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Abstract. *This qualitative, phenomenological, heuristic, human resource-oriented case study describes how a typical small/medium-sized enterprise in the 'twilight' Thai textile industry developed and equipped its workforce to deliver a commercially successful product between 2006 and 2009. Document, interview and observation data were transformed into 'field texts' and integrated as narrative reports for analysis. The focus was on adoption and incremental development of a version of the typical 12-inch take-away pizza box as packaging for trimmings products for a new market - retail customers overseas. The enterprise studied had no functioning HR system; staff mainly learned informally on-the-job. Since no formal process for managing innovation existed, recommendations are offered.*

Keywords: Thai Textile Industry, SME, Human Resources Development, New Product Development

Introduction

Thailand's once successful textile industry cannot compete internationally. It is a 'twilight industry'. In response, Assakul (2007) proposed that Thai enterprises upgrade from commodity products to higher quality goods, with greater variety and value, and that industry leaders educate manufacturers and traders in supply chain management, thereby developing an integrated system. He recommended that businesses upgrade from OEM (own equipment manufacturing) to ODM (own design manufacturing) and eventually to OBM (own brand manufacturing).

Context of the Study

This section discusses Thailand's position in the international textile industry and characteristics of Thai SMEs.

Textiles industry

The textiles industry comprises clothes and textiles. Table 1 indicates that China was the largest of twenty-five countries in world clothes and textiles markets between 2005-8, with Thailand 20/25 on clothes and 19/25 on textiles. For Thailand, the percentage market share for clothes has declined steadily between 2005 and 2008; for textiles the trend fluctuates, as the percentage market share was lower in 2006 than in 2005, but has increased since then to 2005 levels by 2008.

Table 1. Ranking and share of international clothes and textiles market of selected countries 2005-2008

Rank of Clothes / Textile	Country	2005 % Share	2006 % Share	2007 % Share	2008 % Share
Clothes 1	China	31.15	32.87	34.50	36.08
Textile 1		17.48	19.00	19.46	20.48
Clothes 6	India	3.15	3.30	3.18	3.22
Textile 5		3.52	4.05	4.68	5.99
Clothes 10	Indonesia	1.97	2.29	2.17	2.10
Textile 16		1.49	1.57	1.51	1.49
Clothes 20	Thailand	1.32	1.29	1.16	1.12
Textile 19		1.20	1.12	1.15	1.21

Source: Thailand Textile Institute (2009)

The Thailand Textile Institute (2009) sees Thailand's lack of competitiveness as stemming from the price of petroleum, high wages, labor supply and the strength of the Thai baht.

Thai Small Medium Enterprise (SME)

SMEs comprise 80 percent of the total industrial establishment in Thailand, and provide 70 percent of all employment (Bunyamanee, 2001, cited by Intrapairot & Srivihok, 2007). SME cover businesses related to manufacturing, wholesale, retailing, and services and are defined by various criteria, such as net fixed assets, number of employees and registered capital (See Table 2).

Table 2. Criteria for SME: Fixed Assets, Employee Numbers and Investment Capital

Type	Fixed Assets (Million Baht)	Employees	Investment Capital (Million Baht)
Small enterprise	less than 10	1- 49 employees	Not exceeding 10
Medium enterprise	10 – 50	50– 200 employees	10 – 100

Source: Adapted from Industry Finance Office (SIFO), Department Industrial Promotion (DIP) (Sevilla & Soonthornthada, 2000)

Thai SMEs have independent management, funds originating mainly from personal or family sources, and operations within domestic markets. There is close communication with staff and customers. The organizational structure typically is simple. Owners determine whether their business fails or prospers.

Thai SMEs face three major obstacles: financial problems, including a shortage of working capital, unsustainable debt burdens and lack of expertise in accounting and global marketing, a lack of designers skilled in creating products to meet world market demand, and vague government support policies (Intrapairot & Srivihok, 2007). Promsaka Na Sakolnakorn *et al.* (2009) saw financial performance and human resources management (HRM) as the most significant issues for Thai textile enterprises, while Tambunan (2008) identified a lack of information on assessment, as well as technical and managerial constraints. Not surprisingly, Thai SMEs have a high failure rate (Scarborough & Zimmerer, 1996 cited by Intrapairot & Srivihok, 2007).

Purposes of the Study

This paper aims to illuminate how a long-standing, successful Thai textile SME responded to the challenge of competition in traditional markets, including how well it is equipped to realize the industry goal of being a leading textiles producer in Association of South East Asian Nations (ASEAN). It has three purposes. The first is to describe how, between 2006 and 2009, SME management identified a new consumer market and incrementally developed a packaging idea into a commercially successful product targeted at that market. The second is to illuminate the conceptualization of the human resource development (HRD) strategies and means used to create an innovation-minded workforce able to deliver new products. The third purpose is to provide a basis for recommendations to improve the competitiveness of the Thai textiles industry, and for further research.

Research Questions

The paper addresses two research questions (RQs):

1. How did a Thai textile SME transform an idea into a commercially successful branded product?
2. How did the enterprise's management equip its workforce to deliver that product?

Literature Review

The literature review discusses: 1) innovation, 2) factors affecting SME innovation, 3) new product development, and 4) the role of HRD in an SME attempting product development.

1) Innovation

Tidd *et al.* (2005) defined innovation as 'new ways to serve established and mature markets'. Innovation may refer to products or processes. Afuah (2003) identified incremental innovation as small, but important changes to existing products, services or processes. Innovation in business aims to improve outcomes and add value for the customer. Innovation is not a single action, but a total process of interrelated sub-processes. It is neither the exact conception of a new idea, nor the invention of a new appliance, nor the development of a new market. The process integrates all aspects.

2) Factors affecting SME innovation

Innovation in a Thai SME is influenced by external and internal factors. External factors include international competition, policies of government and industry groups, such as the Thai Textile Board, and supply factors, such as availability of equipment and labor.

Three internal factors are culture and climate, leadership, and corporate strategy. Komin (1990) argued that social harmony is a key Thai cultural value; work for Thais must involve "sanuk" (fun). Moreover, "kreng jai" (considerate behavior towards others), "bunkhun" (gratitude), "nam jai" (doing a favor to others without expecting reciprocation), face-saving and criticism-avoidance are embedded in Thai society.

Culture is reflected in an enterprise's climate. Ekvall (1996, p. 122) observed: *'climate is an attribute of the organization, composed of behaviors, attitudes, and feelings, which are characteristic of life in the organization.'* Climate can be assessed by members of the organization or by outsiders familiar with its internal life.

Leadership

Innovation depends on leaders encouraging and supporting employees. Hamel (2007) proposed eight leadership tasks: 1) setting objectives; 2) motivating and aligning effort; 3) coordinating and controlling activities; 4) developing talent; 5) accumulating and applying knowledge; 6) allocating resources; 7) building relationships; and 8) balancing stakeholder demands. Politis (2003) distinguished transactional from transformational leadership. Transactional leadership emphasizes the transaction or exchange that takes place among leaders, colleagues and followers. Transformational leadership usually leads to a change of goals and needs. It increases the level of followers' awareness of valued outcomes, by expanding and elevating their needs and encouraging them to transcend their self–interest. O'Regan *et al.* (2006) found that transformational leadership was associated with innovation in SME textile businesses.

Humphreys *et al.* (2006) found that implementation of innovation in SME was influenced by leadership commitment, empowerment, culture, technology, learning, structure for empowerment, and how management led the innovation process. However, Laosirihongthong (2007) and Prajogo *et al.* (2007) suggested that leadership, people management, and research and development management did not show significant relationships with product and process innovation in Thai manufacturing industries, although technology management showed a significant effect on performance. Jong & Hartog (2007) found that leaders influenced employee innovation behavior through deliberate actions aiming to stimulate idea generation and application, as well as by their more general, daily behavior.

With regard to functional leadership in a team context, Salas *et al.* (2006) indicated that the impact of the leader on individual, team, and organizational effectiveness was substantial.

Strategy

Successful innovation requires strategy. *'An enterprise strategy is a single, integrated master plan embraced and executed by all parts of the organization', according to* Davidson (2004, p.35). Edwards *et al.* (2005) defined innovative potential as the linkage between strategic intent and the techniques and practices that are adopted in an SME. Moenaert *et al.* (2000) claimed that strategy is important: managers involved in international product innovation projects must balance centralization and decentralization, employing formal, as well as informal strategies, and integrate *ad hoc* and permanent strategies.

Veskaisri *et al.* (2007) found strategic planning is positively associated with the growth of SMEs in Thailand. Demographic factors, such as age and education level, are significant and positively related to decisions to use strategic planning. O'Regan *et al.* (2006) studied strategy, organizational culture and leadership styles in an effort to fast-track effective innovation in the electronics and engineering sectors. They found that high performing firms place much higher emphasis on strategy and have stronger leadership than low performing firms.

This section has shown that both external and internal factors affect innovation. SME management has greater control over internal factors. This study sought to illuminate the nature of the leadership exercised by management and its strategies for creating an innovative culture in a Thai context.

3) New Product Development (NPD)

NPD refers to the steps, activities, and decision points that are involved in the development of a new product from initial generation of the idea to product launch (Cooper & Kleinschmidt, 2007). Cooper (1990) proposed a 'stage–gate' process of five stages: 1) preliminary assessment; 2) definition; 3) development; 4) validation; and 5) commercialization, full production or market launch. 'Stage' is the development phase; 'gate' is the checkpoints at which decision making authorities determine whether an idea is to be developed, sent back for further development or 'killed'. It is the review point for previous stages. Sasananan & Ketwarophart (2007) proposed six stages for new product development in the Thai electronics industry: 1) feasibility study; 2) concept development; 3) product planning; 4) product and process engineering; 5) market testing; and 6) market launch.

Tidd *et al.* (2005, p. 68) defined implementation as *'translating the potential in the trigger idea into something new and launching it in an internal or external market'.* Implementation involves acquiring knowledge resources to enable the innovation, executing the project under conditions of uncertainty, launching the innovation, managing the process of initial adoption, and sustaining its adoption and use in the long term. For Klein & Sorra (1996, p. 1057), *'implementation is the transition period during which targeted organizational members ideally become increasingly skillful, consistent, and committed in their use of an innovation.'* Implementation involves an adoption decision and routine use of the innovation within an organization.

NPD comprises a series of stages, each of which involves decision-making. This study aims to illuminate that process in a Thai SME.

4) The role of HRD in developing an innovation

Desimone *et al.* (2002, p. 3) defined HRD as *"a set of systematic and planned activities designed by an organization to provide its members with the opportunities to learn necessary skills to meet current and future job demands".* Various aspects of human resources (HR) relate to innovation implementation. Nacinovic *et al.* (2009) saw the HR team as part of an innovation initiative. HR can create new compensation models and identify roles and responsibilities tied to innovation. Foster (2006) saw HRD as building human capability and developing organizational environments that are conducive to innovation. Wang's (2005) strategic model for global technology innovation and organizational development includes personnel, as well as systems and organizational strategies.

Training and development are core HRD responsibilities: *'Training is the process of developing knowledge and expertise in people, while, development is the planned growth and expansion of the knowledge and expertise of people beyond the present job requirements', according to*Swanson & Holton (2001, p. 208). Both may help employees to generate ideas. Zhuang *et al.* (1999) reported creativity training programs to be under-valued both by individuals and organizations. Beaver & Hutchings (2005) found that SMEs that take a strategic approach to HR training and development will profit not only from a competitive position in the market place, but will also be well placed to adjust to changing and often uncertain external influences on the business environment. Thassanabanjong *et al.* (2009) found that 315 cases of Thai SMEs in Bangkok used On-The-Job Training (OnJT), nine cases used Off-The-Job training (OffTJ), and 114 cases used a mix of both. OnJT includes coaching, mentoring, and job rotation, OffTJ lecture-style instruction, case studies, in–basket training, management games, role playing, and behavioral modeling (Williams, 2001).

Learning is at the heart of HRD (Swanson & Holton, 2001, p.149). Hargadon (2002, p. 57) noted that *'learning is the set of activities that individuals and groups in organizations engage in to extend their ability to comprehend and act within their environment.'* Learning takes place at multiple levels. Hurley & Hult (1998) indicated that higher levels of innovativeness are associated with cultures that emphasize learning, development and participative decision making. Hargadon (2002, p. 58) identified four distinct activities: 1) learning about existing resources of each domain; 2) learning related problems in that domain; 3) learning what others in their own firm know; and 4) learning how to learn. Learning means accumulating knowledge and skills in formal and informal ways. Formal learning is typically institutionally sponsored, classroom-based, and highly structured. Informal learning includes self-directed learning, mentoring, coaching, networking, learning from mistakes, and trial and error.

Transfer of leaning to the workplace is significant for innovation; its objective is the full application of new knowledge and skills to improve individual and/or group performance (Swanson & Holton, 2001). Group focused training and development always utilizes a real work-related problem that may be addressed through action learning, which was defined by Swanson & Holton (2001, p. 249) as '*an approach to working with and developing people that uses work on an actual project or problem as a way to learn',* and/or problem solving – a commitment to solving an actual problem that may or may not result in learning by all those involved (Swanson & Holton, 2001).

In summary, a variety of forms of learning and training are essential if enterprise staff is to innovate and implement new ideas. Thai SME management typically relies on OnJT. This study specifically investigated how an innovative Thai SME promoted workforce learning.

The study site: DDA

DDA - a name coined to preserve confidentiality - was the site of this study. DDA is a Thai SME established in 1966 by parents of the current senior manager (SM1) in a small factory in Bangkok. Its 10 workers produced tubular yarn, a small, cheap, trendy, high-demand product with small profit margins. SM1's mother designed the building, managed production, supervised employees and became expert in designing trimmings, managing operations and leading the production team. Her father was responsible for sales, accounts and product development.

SM1 was educated in the United States and joined DDA in 1996, working under her father who retired in 2000. Her mother subsequently appointed a professional factory manager and became a consultant, monitoring retail sales of the associated companies.

In 2008, DDA employed around 100 monthly and 300 daily paid staff. It qualifies as an SME because its investment capital is less than 100 million baht. DDA's six departments were: 1) Design and Marketing; 2) Design Development; 3) Sales; 4) Production; 5) Finance and Accounts; and 6) Human Resources (HR). HR comprised four sections: 1) Compensation and benefits; 2) General administration (factory); 3) General administration (office); and 4) Training and development. HR responsibilities included management strategy, recruitment, hiring, wages, benefits, labor relations, staff development and liaison to promote departmental understanding of policy and its practical implementation. It was also responsible for administration of offices, public facilities, vehicles, and security.

DDA produces trimmings and consumer packs. The eight core 'basic trim' categories are yarn, braid, knits, ribbons, cords, laces, novelty trims, and appliqués. Consumer packs comprise five product lines: card, floor displays, table displays, wall displays and set packaging. One new table display product is the focus of this paper: the Pizza Box (PB). PB was represented as DDA's most successful sales product between 2006 and 2009. PB is packaging for braids. It is a plain white box, with only producer information, that resembles the take-away pizza box. It is 26 cm wide, 27 cm long and 6.8 cm deep. The box lid is creased and opens easily. Each box holds 16 horizontal and four vertical rolls of braid - 64 in total - of the same or different colors, arranged as 32 paired items. When it was first introduced, the PB was simply a container. Subsequent concepts of 'collection' and 'theme' were added, box contents being linked to seasonal and family events, such as Christmas and birthdays.

Methodology

This qualitative case study was based on phenomenology and heuristic inquiry. Qualitative research seeks to understand the meaning of phenomena, formed through participants' subjective views with their inner experience. Meaning is shaped by social interaction within a culture (Corbin & Strauss, 2008, Creswell & Clark, 2007). Yin (2003, p. 13)) defined 'case study' as *"an empirical inquiry to investigate a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident"*. 'Phenomenon' refers to a program, organization, or culture (Patton, 1990, p. 69). Groenewald (2004) argued that phenomenology is concerned with understanding social and psychological phenomena from the perspective of the people involved and everyday life. The phenomenon investigated in this study was the DDA management and staff's conceptualization of new product development and related workforce development. The research also employed 'heuristic inquiry': *"a form of phenomenological inquiry that brings to fore the personal experience and insight of the researcher"* (Patton, 1990, p. 71). Heuristics focuses on human experience that is intense from the point of view of the researcher.

DDA was selected for study because the researcher – a person with more than 20 years' experience in HRM/D in highly innovative national and international enterprises with strong HRD policies - worked there as an HRD consultant for five months in 2004, observing its daily operations. This experience aroused interest in idea generation and adoption processes for marketable products. Senior managers agreed a proposal to research this process.

Data collection

Data were derived from interviews, observations, documents, and visual sources. Interviews were conducted with eight key participants, identified by purposive sampling, snowballing, and volunteering. For Patton (1990, p. 169), purposive sampling involves *"selecting information rich cases…from which one can learn a great deal about issues of central importance to the purpose of the research*". DDA's organization chart indicated key participants who could explain management strategies and workforce development issues. These comprised three senior managers – referred to for reasons of confidentiality as Senior Management 1, 2 and 4 (SM1), (SM2) and (SM4), and one operations staff in human resources - Operation 5 (Op5).

Snowball technique - 'chain referral' sampling - is a means to recruit 'hidden' individuals who have relevant rich information as suggested by prior participants. Identified by this strategy were: Senior Management 3 (SM3) and two managers responsible for departmental operations, Manager1 (M1), and Manager2 (M2). A volunteer was Operation1 (Op1), a person with 19 years production experience in DDA. Interviews were conducted between 25 September 2008 and 31 July 2009 (Charuksathitwong, 2012).

Semi-structured, open-ended, face-to-face interviews, lasting one to two hours were conducted at the DDA factory and main office at Bangkok, subsequent to agreement by senior management. Interview transcripts in Thai were translated into English as 'field texts'. Member checking of Thai texts was undertaken by key participants, except for senior managers who were sent translated versions.

The purpose of nine researcher observations at factory, Bangkok head office and national and international trade fairs, between 7 November 2008 and 29 April 2009 (Charuksathitwong, 2012), was to understand the DDA context and operations, access routine activities, enable learning beyond interviewees' selective perspectives, and promote reflection and introspection (Patton, 1990). Settings included meetings to introduce a new manager to employees, discuss organizational structure, management coaching, and brief employees, as well as product development and launch. Photographs, videotapes, and audio-recording supplemented note-taking to provide a visual record of events.

Documentary data comprised written, visual, and physical materials: administrative documents, financial reports, manuals, orientation handbook, job description manual and advertising.

Document, interview and observation data are summarized in Table 3.

Table 3. Summary of data collected

Document File (DF)	-	DDA product range catalogue
	-	DDA company overview
	-	Hand book for new staff
	-	Organization chart
	-	SM1 presentation: customer channels
	-	Job descriptions
	-	DDA website on products/activities
Interview Data (ID)	-	Eight interview transcripts in Thai
	-	Eight interview translations in English

Source: Researcher

Data analysis

Codes and themes generated enabled the two research questions to be answered. Interview and observation data were transformed into 'field texts' Narrative reports were developed, subsequently integrating data from different sources as 'units of analysis'. These reports were then analyzed to construct 'units of meanings' through condensation and coding. A further step was categorizing and theme generation (Graneheim & Lundman, 2004).

Findings

RQ 1: How did a Thai textile SME transform an idea into a commercially successful branded product?

This report focuses on the development and commercialization of PB.

1. Origin

DDA's core business is trimmings for Thai industry clients. PB was developed in 2006 after senior management realized that this business was in decline and that new sales outlets were required:

"*All the big consuming markets become downward…we lose ability to forecast our economic trend."* (Senior Management 4: SM4)

Management saw overseas markets as an opportunity and searched for a suitable new product. This was a challenge, since overseas customers were different from Thai:

"*Our local customers will buy trims from Sampeng market by yard cut or bulk pack; trimmings in USA and Europe market packaging are spun into a small roll (that) is easier for the customer to buy and conveniently keep for future use."* (SM1)

The challenge was not to change from trimmings to some other product, but to find a way of marketing existing products. Various options were considered:

"….The first idea was to use a small Christmas tree by tying the trimmings around the tree. The display was very fantastic and liked by the customers. …I could see market pull and the customer needs which could be used as the sample and prototype. " (SM1)

PB was a development in product presentation.

2. Scope of PB innovation

'Scope' is the extent of innovation. PB involved change in dimensions, product mix and customers. Dimension refers to length of rolls, quantity and variety of trimmings. Instead of the standard 36-yard roll, trimmings were marketed in two-yard rolls with 64 in the standard PB.

"We changed …from selling by single items to 32 items in a pack; from industry to consumer target; from product alone to product with packaging." (SM1)

'Product mix change' meant that a box could include trimmings of different colors, textures and materials. Moreover trimmings could be grouped by theme for different target groups and branded, as with other DDA products.

'Customer change' refers to change from 'industrial/domestic' to 'overseas customers', with display as a key consideration.

" In my view, this is a chance to .. enter into the market that we were never positioned in before which is 'Consumer market'. In the past, we sold trimmings to garment industry; the consumer could not purchase our products from us directly." (SM1)

SM1 regarded innovation as incremental:

"It is not the brand new thing, but it is the creative development of existing practice and utilizes it in the new approach and concept." (SM1)

SM1 aimed to meet overseas customers' needs for making scrap books and gifts for festivals, a market that could be reached through department stores or supermarkets, such as TESCO and WalMart. Product design was very important; DDA created 'consumer packs' or 'collections', based on different seasonal themes.

In summary, DDA developed PB to market DDA's core trimmings product. PB is an innovation in packaging, aimed at new overseas consumers who shop in large stores. DDA then identified 'themes' for each PB 'collection', based on seasonal events and festivals that were likely to appeal to these customers.

3. Management of implementation

In an interview, SM1 claimed that her marketing strategy involved sales representatives identifying in-country and overseas customers in their location. DDA had five distinct groups of customers, as shown in Table 4.

Table 4. Customer group buying different DDA products

Customer group	Buying product
Crafts & hobby	Trimmings, Ribbons, DIY kits, Appliqués, Tassels
Garment & fashion	Trimmings, Ribbons, Appliqués
Gifts & packaging	Trimmings, Ribbons, DIY kits
Home décor	Trimmings, Tassels
Specific purpose	Trimmings

Source: SM1's master file for sales presentations

DDA was consumer conscious:

'Since we have been attending many overseas market fairs, we have some idea of what foreign customers have in mind, what do they want, and/or what are they looking for in products." (SM2)

In 2006, DDA restructured to support PB production, with technicians being withdrawn from design to support production and designers hired to create themes for PB 'collections'. A Production 5: Packaging Department was set up to pack products and consumer packs and a Samples Department created for research and development, including experimenting with trimming rolls and boxes. To build a 'brand' image, every roll of trimmings carried DDA's logo - MOMOTARA.

4. Factors in commercial success of PB

SM1 believed that cultural, social and managerial factors contributed to PB's success.

Cultural factors were perceived to be opportunity seeking and acceptance of change. The former is an organizational value that senior management perceived to be a main factor in PB's commercial success:

"Having the chance to observe overseas market abroad has widened my thinking. I can observe market trends to foresee what are customer needs and preferences." (SM2)

Senior Management's search for new opportunities was not only to ensure survival, but also to promote DDA's growth. With regard to acceptance of change, management recognized that changes in global business had implications for DDA's internal organizational structure.

SM1 had a concept of change management for DDA:

"*I learned that the six elements of vision, communication, capability, tool, reward, and action plan are essential for foundation of change. And I followed this structure."*

In conclusion, senior management accepted the need for change for organization development and to learn methods for bringing about change.

Two management factors explain PB success: customization - DDA's ability to produce products that met needs of different customer groups - and 'risk management', including DDA maintaining a presence in a range of markets.

"*We are like a 'one stop service'. Customers can come to our factory and order many products from a full range… We have a large number of machines and technologies to produce many kinds of trims to meet the customers' requirements."* (SM1)

With regard to risk, DDA management learned from experience:

"Five years ago when we were starting to exhibit our products in the international textile fairs, we could only give away our samples but we never received any sales orders." (SM2)

SM1's concept of 'risk' was careful investment in each of three sectors - *"30-30-30 practice"* - *viz.*30 percent domestic sales, 30 percent DDA's associated companies, and 30 percent overseas market.

Conclusion

Between 2006 and 2009 DDA created PB, an innovation in packaging, product dimensions and mix and customers targeted. It established a design team and departments for packaging, research and development. These subsequently developed PB incrementally after its initial commercial success became apparent. Overall, success reflected DDA's position as a 'one-stop-service' factory, managerial acceptance of change, and cultural factors, such as opportunity seeking and risk management.

RQ2: How did enterprise management equip its workforce to deliver that product?

This report focuses on how DDA management promoted its own and workforce learning. The main focus is on the latter, both in general and specifically in relation to production of PB collections.

1. The HR function

In 2008/9, the senior HR position at DDA was vacant, responsibilities being discharged by Op5, a female. Her main duties were ensuring compliance with time and attendance requirements, enterprise rules and regulations - HRM.

Op5 provided basic orientation for new employees - knowledge of products, including threads, colors and safety procedures. She acknowledged that orientation did not make staff workplace competent. Some quit. Persisters received a further full day of orientation before starting work. No other formal training was provided.

According to one staff member, DDA never had a training plan. Staff learned through 'on-the-job training' (OnJT):

"We all have to learn by ourselves through our work. I am the person who will have to teach those new employees how to set up the machines…I also had to give some demonstrations how to operate machines. HR doesn't participate in this process at all." (Op1)

Another staff member commented:

"I think DDA probably already has formal staff training plans, but there is no real action just yet… However, the trainings were not exactly the formal training programs. It looks like a contingency plan that is provided from time to time." (M2)

While many new staff needed training, some did not:

"I have to admit that some employees who graduated in textiles have skill and some experiences. They already know how to set up some machines. We should give them more training so they will have more knowledge." (M1)

M2 thought that OnJT was insufficient:

"*HR should realize the importance of learning and provide more training for employees."*

Some managers reported that staff had different attitudes to training:

" Some staff, we want them to learn but they refused. Some, they don't have to learn, they wanted to. Therefore, in my idea I think we should have a developing program for staff of each level." (M3)

In conclusion, DDA provided only basic orientation to new staff that did not make them workplace competent; middle level management believed that formal training was essential.

2. Informal learning at DDA

Staff learning occurred informally in varied ways: by doing, from travel, problem solving, business development, imitating, consultancy and coaching, as explained below.

Learning by doing

Learning by doing was reported by key participants at all three levels in DDA – senior managers, middle level managers and operations staff.

Staff rotation between jobs also promoted learning:

"I started my career from being a machine operator, stepped up to production machine set up by technicians, and finally ended up being a trimmings designer."(Op1)

SM4 explained how technicians had learned to design and make trimmings:

" In the past, design function was a responsibility of the technician. Knowledge built up during production and experiment was the method that the technicians employed to create new design. Then, they took output to SM1's mother who is very experienced in trims context for her to consider. (SM4)

b) Learning from overseas travel

Three senior managers, who had graduated overseas, had different views and knowledge from other DDA staff. One noted:

"*I gain knowledge from travelling and observe the demands and needs of the customer… We then looked for an opportunity to introduce trimmings into consumer market to expand our sales."*(SM4)

Senior management saw the importance and benefit of overseas travel:

"The main reason for going abroad is to participate in the trade fair. I went to Hong Kong twice and one time to Macao." (M1)

M1 added that he learned more about product pricing than product design:

"I will go to the trade fair mainly because DDA wants me to see other exhibitor products and their product prices. However, as for design observation, I just don't have any ideas on developing product design. " (M1)

Therefore, while direct learning experience overseas was useful for management, it was less so for employees, since their main task was represented as work, rather than as learning. Yet management still viewed it as beneficial:

"Our staff has learned a lot from the international textile fair. Attending the fair, staff can understand more about the market and customer needs. They have a better visibility of the consumer market.." (SM2)

c) Learning from problem solving

Problems can occur at any time. SM1 and SM4 believed that facing and solving problems is a learning opportunity for staff, which can also lead to product development:

"I don't mean or expect that our staff have to come out with a lot of new ideas. What I mean is they should always bear a positive attitude when they face any problem and think further to see if there is a way to convert the problem into something that (will) benefit us. If they don't know how to solve that particular problem, they should bring it to brainstorm with the team."

SM4 saw staff learning as being stimulated by work experience, plus willingness to learn from related matters, especially problems. When encountering problems or obstacles, they had to try to resolve them in a limited time.

New business developments were a further factor in promoting learning:

"*As for our staff, they will normally have their own ideas towards the creation of new products … We will support and help them to develop their innovation by giving some comments or suggestions to help them solve problems with full support to lead them to success.*" (SM4)

d) Learning from imitating

SM4 learned from analyzing competitors' products:

"I learned to copy from others' good practice. When I go to abroad to sell our products, I will also buy the products of others to study how they made it and if we can do the same with our products. I treat it as a way to exercise and practice my creative thinking." (SM4)

e) Learning from external consultants

Overseas experience led SM1 to believe that organization and administration could be improved by external consultancy. One consultant developed overseas marketing strategies and merchandise; another developed new HR policies for organization structure and manpower planning; a third helped SM1 to introduce a new budget and financial reporting system:

"Recently we have been through a lot of changes. Three or four years ago, DDA invited an SM1 from a foreign company to be our advisor. He suggested that this organization needs a budget/financial report. At that time, the management said that was impossible." (SM1)

DDA's developed accounting system made it easy to expand into overseas markets.

f) Learning from coaching

Three senior managers - SM1, SM2, and SM4 - lacked work experience. SM1 hired SM3 who

had extensive experience in textiles, especially overseas. SM3 managed operations and coached senior managers. For example O6 showed SM3 advising SM1 on managing participation by designers in meetings, including advising SM1 not to tell staff what and how to comment but encouraging them to think on their own. SM3 urged the audience to concentrate on the presentation and to prepare questions. SM3 believed that senior management was too deferential to employees:

"For me, I don't care about 'Kreng jai'. If staff were wrong, I will reprove them. I usually mentioned to SM4 that he has never reproved his subordinates." (SM3)

Conclusion

DDA had no effective HR function, offering orientation to new operations' staff members, rather than training them to workplace competency levels, thus causing some staff to quit. Most learning for operatives and management was informal. A variety of experiential techniques were used, the most important being OnJT, and coaching from external consultants.

Interpretation and Discussion

Interpretation focuses on three inter-related issues: DDA as a Thai SME, its HRD system and approach to innovation.

1. DDA as a Thai SME

DDA is a typical self-financed, owner-managed Thai SME, family business (Thassanabanjong *et al*., 2009). Its simple organization structure was created by its founders. Though six departments were established during the research, authority remained with the three senior managers, although SM1 tried unsuccessfully to empower staff. A change from traditional arrangements was the hiring of SM3 in 2007 to promote overseas sales and coach senior managers. These internal factors had greater influence on DDA's international competitiveness than the external factors identified by Thailand Textile Institute (2009).

DDA's HRD system

On paper, DDA had an HR department, but no senior staff filled this post during the research. Learning was consequently informal, as described above. Learning depended on the context in which people operated. Reliance on OnJT confirms the finding of Thassanabanjong *et al.* (2009). However, informal learning was widely recognized to be insufficient for an organization as big as DDA, whose staff needed formal training and a development plan.

DDA's approach to innovation

At DDA, SM1 was the source of almost all new ideas, adopting PB in response to business pressures in an attempt to ensure DDA's survival. She also developed the PB collections and themes, explaining what the designer team had to do. It could be said that SM1 was the ideas 'gate-keeper' or 'checkpoint' (Cooper, 2003).

In conclusion, DDA is a typical Thai textile SME with SM1 largely in control. HR is a function that is recognized, but not implemented, except through informal strategies whose overall effectiveness is unknown.

Discussion and Implications

This part discusses two issues: first, the DDA organization: a system that relies on one person for innovation; second the implications for DDA of having no HRD system to support innovation.

DDA relies on a 'one person knows best' system of innovation in textiles at a time of growing international competition. SM1 had two sources of knowledge – growing up in a 'trimmings environment', and an international Masters degree in engineering. She inaugurated an eight category common trimmings language and was recognized as an 'expert':

"... SM1 knows DDA business context so well..... she understands the marketing requirements for new product development." (M1)

As the DDA owner, staff expected her to make decisions:

"The SM1 is the best decision maker who can give us a practical short cut to the solutions.

At the same time, I also can make the decision as a part of team and so does everyone." (M2)

As the literature reviewed earlier indicates, leaders play an essential role in innovation management; senior management can set the tone and play a key role in whether a company will be innovative or not. SM1 established a vision and strategy for general business direction, but did not emphasize innovation, a finding that confirms Humphreys' *et al.* (2006) and Jong & Hartog's (2007) findings. Moreover, DDA's business strength – providing a 'one stop service' - is based on DDA producing trimmings using a range of technologies (Laosirihongthong, 2007; Prajogo *et al*., 2007).

Lack of priority for innovation has implications for enterprise survival: even though DDA succeeds in selling its products in overseas markets, its management needs to appoint skilled and aware HR staff to introduce a functioning training system and to contribute as partners to strategic planning and development for innovation.

Conclusion

This study investigated incremental product development and informal learning for implementation in DDA, a Thai SME textiles family business, managed by a senior manager who was its owner and key decision maker as regards innovation. There was no HRD function to support innovation and staff learned mainly through informal learning. However, this kind of on-the-job learning is insufficient to develop creative staff. Creating expert teams with knowledge, skills and experience takes time. Hiring a senior HR person would be a major investment for DDA, as Thassanabanjong (2009) indicates; however, such a person could support DDA to function more practically and effectively.

Limitation of the study

A major limitation derives from the methodology. While this study aimed to provide a rich description of how a Thai SME copes with product development, it is not possible to generalize from this case to other Thai SMEs in textiles or other fields, or beyond Thailand.

Recommendations

This study highlighted threats to the Thai textiles industry and suggestions from industry leaders for meeting international competition. It offers the following recommendations to the Thai Textile Board and SME in Thailand and raises questions for further research.

Thai Textile Board

1)The Thai Textile Board is responsible for national innovation. It should develop policies for Thai Textile SMEs to upgrade from OEM (Own equipment manufacturing) to ODM (Own design manufacturing) and to OBM (Own brand manufacturing).

2) SMEs in Thailand

DDA's experience suggests that hiring 'designer' teams to create new PB collections was an effective competitive strategy. If Thai textile SMEs invested in product design they might more effectively compete internationally.

3) Further research

This qualitative study needs replicating in other Thai SMEs and larger enterprises. Findings could be used to generate hypotheses about innovation in Thai enterprises to be tested using quantitative approaches. Possible topics include:

How formal learning, such as classroom training, impacts on product development; and

How other techniques, such as focused meetings, impact on product development implementation.

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