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CREATING IT IDENTITY FOR ADOPTION AND USE: THE CASE OF LOTUS NOTES

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Abstract

Identity as the unique characteristics of a person or an entity that make them different from others has attracted an overwhelming attention in management studies over the last few years. This paper explores the emergence of an IT-related identity and argues that this will influence IT diffusion and use in different organizations. It is based on the assumption that while interacting with IT, people also make sense of it. Hence, IT identity could shape subsequent people’s actions and understandings of the technology. This study employs the interpretivist approach using the case-study method. The use of Lotus Notes in four organizations is investigated. In each of these cases, four different identities of Notes have been found, namely Notes as a unique and integrated business application, Notes as a replaceable communication tool, Notes as a reporting tool and Notes as complementary tool to other IT tools. Analysis has shown that several factors have contributed to the development of these different types of identities: factors such as the organizational context, including sector and size of the firm, mediators’ role, and the availability of other IT applications that may replace or complement Notes.

Keywords: IT identity, Lotus Notes, Groupware

1 INTRODUCTION

The concept of identity has received an overwhelming attention in the recent organizational and management literature (Maguire et al., 2001; Foreman and Whetten, 2002) as studies of various types of identity yield significant implications for organizational studies. Identity generally implies “the qualities of a person or group which them different from others” (Cambridge dictionary). In the management field, the concept of identity is of particular importance because individual and organizational identities are found to influence people’s perceptions of their work environments. It has been suggested (Bansler and Havn, 2004a) that identity may be drawn by adopting a sensemaking perspective in which people attempt to make things accountable to themselves and others and that action is crucial for understanding (Weick, 2001). To interact with technology, people have to make sense of it; and in this sense-making process, they develop particular assumptions, expectations, and knowledge of the technology (Orlikowski and Gash, 1994) and this subsequently reinforce or modify their understanding of IT and IT identity. Based on the definition of organization identity which refers to what members perceive, feel and think about their organization (Hatch and Schultz, 1997), and the concept of technological frames by Orlikowski and Gash (1994), the concept
of IT identity is defined here as the shared perception, feeling and thought of organizational members as a whole about IT (general or specific) being adopted in their organization.

In this paper, we study the phenomenon of IT identity with a specific aim to understand how and why this is developed, what are the factors that affect its development within organizations, and its implications on organizations. Some IS scholars have pointed out perceptions of technology in specific contexts which affect people use of IT in organizations. For example, Orlikowski and Gash (1994) introduced the concept of technological frames which are defined as ‘the understanding that members of a social group come to have of particular technological artefacts, and they include not only knowledge about the particular technology but also local understanding of specific uses in a given setting’ (p.178).

This paper examines the identity of Lotus Notes (Notes) in four organizations; Notes is equivocal and open to many different interpretations by its users which result in several implications on organizations. The paper begins with a discussion on different types of identities in management studies and then the importance of IT identity concept is conceptualised. The chosen methodology and background of the case studies are then presented. Next, we present the findings of this study regarding implications of Notes identity on organization and factors that affect the development of Notes identity in organizations.

2 IDENTITY CONCEPT IN MANAGEMENT STUDIES

Identity has initially been conceptualized at the individual level. Mead (1934) proposed the concept of identity as a relational construct which ‘arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process.’ (p.135). Personal identity is ‘an individual’s knowledge that he or she is different from other people (group members) together with some emotional and value significance to him or her of this sense of individuality’ (Haslam, 2001). Personal identity has become an interesting construct in organization studies. For example, Beyer and Hannah (2002) argued that personal identities provide mental representations of personal characteristics and attributes that are relevant to individuals’ work. Personal identities serve as repositories of a range of attributes that have been developed and enacted in past work experiences.

On the other hand, social identity is different from personal identity, which is derived from personal characteristics and individual relationships. Scholars in social identity (e.g. Ashforth and Mael, 1989) begin with the premise that people classify themselves and others based on various social or demographic groups, e.g., age, gender, race, ethnicity, religion, occupation, and so on. Social identity has become the main issue in organization studies in that an organization is a group with a social identity (Statt, 1994) and it has psychological meaning for all the individuals who belong to it. Therefore, in the organizational context it is social, rather than highly individualised, identities that are of greatest relevance (Alvesson, 2000).

Albert and Whetten (1985) argued that an organization has an identity to the extent there is a shared understanding of the central, distinctive, and enduring character or essence of the organization among its members. In addition, Hatch and Schultz (2002, p.1004) argued that ‘organization identity is not an aggregation of perceptions of an organization resting in peoples’ heads, it is a dynamic set of processes by which an organization’s self is continuously socially constructed from the interchange between internal and external definitions of the organization offered by all organizational stakeholders who join in the dance.’ Research has explored the utility of the identity construct as the identity has been employed in a variety of ways to explore and explain a range of organizational phenomena. For example, Alvesson (2000) discussed various sources of social identities in knowledge intensive companies and how management may act in order to safeguard the right identity in order to attain the loyalty of employees.

Having reviewed various types of identity, construction and adaptation processes of identities are one of the main themes for understanding organization studies. Identity is best understood
as something which is not monolithic and robust. Identities are rather multiple and contextual, therefore they must be constructed and secured (Alvesson, 2000).

3 CONCEPTUALIZING ‘IT IDENTITY’

Similar to other types of identities discussed above, IT identity is not static or monolithic. Rather, it is socially constructed from the interaction between IT, its members and the organization itself, and is adaptive to its context. Therefore, investigation of how identity of some IT is developed in different organizational contexts is warranted as it may yield several implications to the use of IT in organizations such as increasing user acceptance and promoting usability of the system across the organizations. Bansler and Havn (2004a) argue that the systems identity in an organization change continuously because the applications are used in ways not foreseen and to which it has to adapt to survive (Orilkowsky, 1996; Ciborra, 2002). Therefore, rather than viewing identity as a discovered object, it should be viewed, according to sensemaking, as an “on-going retrospective development of plausible images that rationalize what people are doing” (Weick, 2001, p.460) by focusing on and elaborating a limited sets of cues into an identity for actions. In a study of how a group of mediators in a large company adapted a new web-based computer-mediated communication to the local context, Bansler and Havn (2004b) implied that there were different identities on ProjectWeb which can be viewed as either a broadcast medium or groupware system. However, they focused on how the individual mediators may develop different interpretations of the “same” technology in the same organizational context depending on their identity, previous experience, local conditions. Similarly, Orlikowski and Gash (1994) explore how different actors in the organization made sense of the new technology and how and why they interacted with it. They posit that technological frames are shared by members of a group having a particular interaction with some technology. Different groups may have incongruent technological frames, which could lead to difficulties around technological use and change. Thus, the study we present here is different to the studies by Bansler and Havn (2004b) and Orlikowski and Gash (1994) in that we focus on how people in different organizations make sense of the same IT within their organizations.

This study focuses on the use of Lotus Notes (Notes), a groupware which provides “electronic networks that support communication, coordination and collaboration (known here as the 3Cs processes) through facilities such as information exchange, shared repositories, discussion forums, and messaging” (Orlikowski and Hofman, 1997, p.12). Due to its flexibility and ease of use, Notes makes it possible to use a database on small scale and allows information to be distributed between different users, using these shared databases (Brown, 2000). The use of Notes is also investigated and found to be a potential tool for knowledge sharing among organizational members in a number of studies (e.g. Orlikowski, 1993; Hayes and Walsham, 2001). Therefore, this present study focuses on the identity of Notes created and shared in different organizations and clarifies how the identity of Notes is created as a result of the organizational sensemaking processes on the adoption of Notes.

4 METHODOLOGY

The need for detailed understandings of human actions and meanings within specific contexts was emphasised. Accordingly, this study follows the interpretive approach (Walsham, 1993) as its focus lies on the subjective meanings that human actors ascribe to Notes technology in different organizations.

The case study method appears to be most appropriate as it is a well-accepted approach to study the complex phenomena of technology implementation in an organizational setting (Alavi and Carlson, 1992). According to Walsham (1993), in-depth case study where research involves frequent visits to the field site over an extended period of time is most appropriate for conducting empirical research in the interpretive tradition.
The data collection took place in 2 phases in 2004 - 2005 in four Thai organizations implementing Notes. The first three companies were IT companies, whereas a chemical company was chosen as the forth case on purpose in order to help increase generalisability. A variety of qualitative data collection methods were used: interviews, review of firm industry and project documentation, and non-participant observation. The study involved semi-structured interviews with 40 key people from the four organizations. Each interview was forty-five to ninety minutes long. Most of the interviews were recorded and transcribed and translated into English. Manuals of Notes applications and marketing promotion materials such as brochures and posters were collected. Further, informal conversations and discussions with interviewees and other staff members were conducted during each visit to the research sites. Non-participant observations of how members use Notes were conducted so as to provide further insights into the functions of Notes applications. The backgrounds of each case are discussed next. All company names are pseudonyms but none of the other identification characteristics have changed.

5 CASE STUDIES

5.1 ComNotes case

5.1.1 Background

ComNotes is one of IBM’s distributors in Thailand. The company provides business solutions such as e-procurement, CRM and document management, based on Notes and Domino infrastructure and the professional services, consulting, support, and training. ComNotes was founded in March 1998 by a director who had been a Notes developer. ComNotes comprises around 30 highly experienced members who are specialised and dedicated to Notes Technology. ComNotes structure has been divided into 3 departments, Sales and Marketing, Technical Support, and Customer Services. The Sales and Marketing department is responsible for getting to know customers’ requirements and maintaining customers’ satisfaction. The Technical support department integrates two responsibilities, system administration and development. The role of system administration is to implement the system and settings for customers in the first instance, while development is involved with application design and maintenance. The Customer Services department is responsible for after-sales services and receiving calls from customers.

5.1.2 Notes implementation

Notes has been implemented throughout the company. Simultaneously however to Notes, SameTime, an IBM e-messaging application that enables synchronous communication, has been implemented to enable communication between employees in the Head office and a branch in Cambodia. In general, users of both Notes and SameTime are authorised to access and share the same resources in most of the databases. However, some Notes applications have also been designed to meet the specific needs of different departments. The purposes of such applications in the three departments are described as follows:

A sales application on Notes is used in the Sales and Marketing department. This application is mainly implemented in the department for daily sales planner, sales activity tracking, sales policy and document repository, and mobile access to information.

A document library is the standard knowledge management (KM) database which is utilised by the Technical Support department to support their activities. Technical knowledge is maintained on the document library and categorised for several purposes such as programming scripts, security, troubleshooting, and software specifications. This recorded

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1 This paper is a part of a bigger study on Lotus Notes use in developing countries.
knowledge is based on employees’ direct experience or is found in external resources (e.g. website, interactions with customers).

The call log and application control application of Notes is designed for the Customer Services department. It is utilised for maintaining information in order to support the customers. Calls from customers kept in call log can be identified into two main categories. The first category monitors how many errors occurred with the applications launched to customers. The second category, the call log, maintains the complaints from customers in order for company to assess customers’ satisfaction, why the customer complained, or used for calculating charge rate for the next service. Systems other than Notes were not implemented in ComNotes.

5.2 Procom case

5.2.1 Background

Procom is another IT organization that provides hardware, software and integration services to satisfy all types of business needs. It offers solutions such as Notes for communication and document management. Procom comprises 40 employees. The company is divided into two main departments, Operations and Sales and Marketing. The Operation department comprises of systems engineer & technical support, purchasing and administration, presale and support and OA products. The Sales and Marketing department includes presale and support, hardware and software sales and administration. Responsibility of the Operation department is to implement the solutions for the customers and support customers after implementation, whereas Sales and Marketing promotes products and services and acquires customers’ requirements.

5.2.2 Notes implementation

Notes was implemented in Procom in 1998. As Procom is a partner of IBM (Thailand), it has the privilege in utilising the system for free. At the beginning, Notes was initially used by only the heads of departments and Notes support team. However, since 2000 Notes has been used by every member at Procom. The main purposes of Notes implementation were to enable members to use Notes and to become a site reference for the customers. Since then, the email feature on Notes has become the main communication tool. In addition to the email feature of Notes, Notes databases are utilised differently in the two departments for different purposes. In 2001, a KM database was employed by the System Engineering and Technical Support Unit for maintaining solutions so as to help members resolve technical problems and to advise customers. A service record application is used to report the activities of each member in the Operations Department. In 2004, a sales application was mainly employed for sale tracking in Sales and Marketing. This is to keep customers’ contact name and details, activity and appointments with the customers, status of projects and history, whether and why project fails so that the marketing director can improve sales and marketing. In addition, the purpose of this application is for top management to see salespeople’s activities and prospects about customers.

5.3 Comtech case

5.3.1 Background

Comtech is an organization that belongs to a large software business group, Thaitech. Comtech comprises around 50 members within 3 main functions, Sales and Marketing, Infrastructure and Developers. Infrastructure is responsible for network and anti-virus software. The Infrastructure team can be divided into 4 sub-teams which are operating system (OS), network, application and support & MA. The team of OS, network and application focus on implementation system for customers, whereas support & MA will follow and support customers after implementation. The developers team is responsible for developing
applications on Notes and other IBM products such as web portal. The infrastructure and developers teams also work as a support team including both pre-sale and after sale service. The Sales and Marketing team is responsible for promoting its products and services, and getting customers’ requirements.

5.3.2 Notes implementation

In 1999, Notes was implemented in the Comtech business unit of ThaiTech only since it is responsible for IBM software and products other than Microsoft’s. Comtech has a free license of Notes from IBM as Comtech is one of the partners. The initial purpose of Notes implementation was for Comtech to test and familiarise itself with Notes. Since then, Notes has mainly been utilised for email communication. Notes is maintained, developed and designed by the administrator within Comtech. Several Notes applications have been designed and employed in different functions of Comtech. The Sales application is utilised in the Sales and Marketing department in initiating order process. The sign-off project application is used by the implementation team to record the status of work done for customers. The work order application consists of a database of customers and is used by individuals or teams to inform their visits to customers’ site and to facilitate meetings. A Customer quiz database is utilised for support and maintenance. It is used to record information about customers, their problems, the person who picks up the phone, time of call and solution status. In 2003, the general manager initiated the plan for KM. The reason was that Comtech has to maintain ISO 9001 standards in providing central information about customers’ requirements and work process status. KM databases were then implemented and utilised by all the functions. Each function has its own KM database. The KM databases are also accessible within different functions. Systems other than Notes were not implemented in Comtech.

5.4 Chemhouse (Thailand) case

5.4.1 Background

Chemhouse (Thailand) is the only non-IT case in this study. It is a subsidiary of a multinational group in Thailand, Chemhouse. Its core competencies are chemicals product such as structural strengthening solutions, steel protection, industrial flooring systems, grouting and fixing systems, waterproofing products, water and solvent-based adhesive. Chemhouse (Thailand) has around 140 members in Operations and factory. The firm is divided into 6 departments; Operation, Industry, Sales and Marketing, Human Resource, Customer Service, Technical Lab, and Finance. The company also has Sales and Marketing branches in 5 areas in Thailand.

5.4.2 IS implementation in Chemhouse group

The goal of the IS implementation in general throughout Chemhouse group is to enforce communication between Chemhouse companies, since they need to have appropriate information at the right time (Chemhouse group’s IS newsletter). In 1998, the intranet was implemented by the IS department of Chemhouse headquarters. It was used by all the companies in the group. The system has been built on the basics of Internet technology, so that everybody could be able to use it. Within the intranet, users can find information about corporate legal, insurance and trademarks, technical datasheets in multiple languages, references, test reports, a new business news service, information from the corporate marketing construction, global news board where news and new information in the system will be announced, subscribing system for the news board, MIS data from Chemhouse finance, Corporate address book and graphic gallery with Chemhouse logos.

In May 1998, to optimise the accessibility and global collaboration within the Chemhouse group worldwide, group management decided to introduce a global worldwide mail system based on Notes. The goal was to have the same client software on all PCs, accessibility on a
national and international level. Regarding the main issues like security, usage and performance of the global network, security of the manufacturer, availability of national language and more, Notes is, then, recommended as the Chemhouse email standard.

5.4.3 IS implementation in Chemhouse (Thailand)

In order to meet the accounting standard as required by headquarters, Chemhouse (Thailand) implemented a Cognos system for operational reporting and a Hyperion system for financial reporting to the international level in early 2003. Sirius has been utilised as an ERP system in Chemhouse (Thailand) since 1999. During the second phase of fieldwork, the Sirius system was being replaced by Axapta for ERP systems. The purpose of the implementation of these tool is to standardise the software tools worldwide to facilitate and manage work processes such as supply chain, sale, finance and human resource process. A file sharing server is also utilised to maintain important files. The users are differently authorised to read and write files the server.

5.4.4 Notes implementation in Chemhouse (Thailand)

Having been enforced from headquarters, Chemhouse (Thailand) started implementing Notes in November 2003. The system was implemented by the IT supervisor of Chemhouse (Thailand) alone. The company bought a Notes license from IBM (Thailand) for 32 users. Thus, Notes is used by only key people in each department and sales and marketing branches. The main purpose of Notes implementation is as a communication tool among the different departments and branches of Chemhouse (Thailand), with the Chemhouse headquarters and with external parties such as suppliers.

Apart from the email use, there is an application called “global and management industry” (GAMI). GAMI has been utilised throughout the Chemhouse Group since April 2004. GAMI contains the list of Notes databases in Chemhouse group. GAMI acts as a corporate address book which contains all the specialist records within Chemhouse group. The purpose is for the Notes users to initiate the contact with the specialists when important information or knowledge is required. The applications in particular areas are sent to the people who requested after it has been authorised.

In the Purchasing Department, a Notes application called ‘purchasing page form’ is already in place and utilised to record information about purchasing, raw materials, suppliers, the price and agreement with the suppliers.

6 CROSS CASE COMPARISON OF NOTES IDENTITY

This section aims to compare the similarities and differences of the Notes identities from the case studies. Then, the different reasons of the creation of Notes identity as well as its implications on organizations are discussed.

6.1 Differences and similarities among the definitions of Notes identity in each organization

<table>
<thead>
<tr>
<th>Site &amp; its Notes Identity characteristics</th>
<th>Notes Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ComNotes: Notes as a unique and integrated business application</td>
<td>Different Notes applications were used to facilitate work processes in different departments. KM database was used in the technical support department.</td>
</tr>
<tr>
<td>Procom: Notes as a replaceable communication tool</td>
<td>A sales application was only used in Sale and Marketing department to report work status to the director. KM database was used in Notes support team.</td>
</tr>
<tr>
<td>Comtech: Notes as a</td>
<td>Identity of Notes as a KM database was perceived and utilised by all</td>
</tr>
<tr>
<td>reporting tool</td>
<td>departments.</td>
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<td>----------------</td>
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<tr>
<td><strong>Chemhouse (Thailand):</strong></td>
<td>Notes as complementary to other IT</td>
</tr>
<tr>
<td>Notes was perceived as a tool to be used by people of authority (e.g. Finance manager and Purchasing manager). In the purchasing team, Notes was used to input information about raw materials by purchasing staff who share the manager’s Notes account.</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. **Comparisons of Notes identities in the case studies**

Table 1 presents a cross-case comparison of Notes identities. The similarities of Notes identity can be found from the case studies of ComNotes and Comtech where Notes applications are heavily used. In other words, Notes is well-integrated to their business processes. Hence, the staff of both organizations have the same perception that Notes applications are inevitable and well-embedded in their work. The 3Cs groupware processes (Coordination, Communication and Collaboration) are found to be carried out by the majority of staff in ComNotes and Comtech through the different features of Notes. Even if several other applications are similar such as document library in ComNotes and KM database in Comtech, there is a slight difference in how Notes is promoted by top management which affects the identity of Notes from the staff’s perception. Notes is created to facilitate in the operation of ComNotes among the people in different departments. Staff refer to what have been maintained on Notes or to interact through Notes for a particular project. The KM databases appear to be additional resources which the staff could look up. However, Notes is identified by the manager in Comtech as a tool to share resources such as sales resources or technical KM database where everyone is forced to access them first before throwing questions to other people. The staff of Comtech can learn from what has been done in their company. Therefore the distinctions between the Notes identities in the two cases are firstly that Notes was emphasized by the directors as a tool to support business processes in ComNotes, and secondly that Notes was focused as a tool to maintain resources for the staff to learn how to work.

In contrast, the Notes identities in Procom and Chemhouse (Thailand) are perceived in relation to other IT tools since there are other tools that existed prior to the implementation of Notes. Notes therefore has not been seen as a main tool in these companies and as a result it was seen as easily replaceable by other tools to provide for its specific functions. The use of Notes is not covering all the work processes in the organizations. Therefore, all the 3Cs groupware processes are not well-embedded in these organizations. Further, the main difference of Notes identity between the two companies is that Notes is mainly seen as a communication tool within Procom, whilst Notes is used as a supplement of other IT tools in Chemhouse (Thailand). Notes is used as a communication and co-ordinating tool for co-operating work and management between Chemhouse group. Therefore, Notes is differently identified in these two cases. This depends on how Notes is integrated with other tools and the boundary of staff who interact.

**6.2 Implications of the different identities of Notes on organizations**

Notes helps to collect information from the staff in order to improve decision making in the organizations. For example, the call log application in ComNotes assists the director to consider the service rate for the next service, whereas the customer quiz database in Comtech is used by the manager to consider rewarding support and MA staff. Further, a sales application is implemented in ComNotes, Procom and Comtech in order for the staff to report their activities to the director. This may be because Notes is implemented throughout the whole organization in ComNotes, Procom and Comtech. This implies that the use of Notes can help to manage to control the staff activities. Notes is not used to monitor and control activities of staff in Chemhouse (Thailand) since Notes is used among the directors and managers. Rather, the headquarters of Chemhouse use Notes to control correspondence among companies in Chemhouse group.

Different Notes databases are open to everyone in ComNotes, Procom and Comtech to access. The staff can look up for information or learn from Notes, whilst Notes databases in
Chemhouse (Thailand) are limited to key people in different departments to access. However, staff from different departments in ComNotes and Comtech are more likely to access across applications and databases of different departments than in Procom. This may be because the staff of ComNotes and Comtech are forced to refer to Notes when they need to co-operate in a project, especially staff of Comtech also learn from Notes KM databases from different departments because their managers force them to contribute and look up for information from KM databases. In addition, the staff of ComNotes and Comtech are more likely to co-operate in their work than Procom and Chemhouse (Thailand). For example, developers and infrastructure team staff in Comtech need to co-operate together when they implement a project for customers, whilst staff from different departments in Procom and Chemhouse (Thailand) have separated responsibilities by the different departments and they just pass on their work to the relevant department. Therefore, staff of ComNotes and Comtech appear to have more understanding about the work processes as a whole than those in Procom and Chemhouse (Thailand).

“...Call log application is for all the departments...For example, when the project manager visited the site and had some problems, he informed customer services that this problem occurred. Customer services may test it or if it is some problem that was not directly dealt with, they will put in call log application that they have this problem and send to the team responsible. The team responsible will have a look and solve it...” (A software developer, ComNotes)

Notes databases are particularly utilised as KM databases in technical departments of ComNotes, Procom and Comtech. By utilising KM database, it allows the people in these companies to interact with each other in order for them to respond timely to customer requirements. KM database of technical departments tend to be recognised by only the staff of the departments as they share the same background of the knowledge being shared and maintained. However, Notes databases are utilised for all the departments in Comtech and staff from the different departments can liberally access the different databases. As a result, the staff of Comtech can learn from the KM database of Notes which leads to the skills that they use to support the customers. No technical KM database is found in Chemhouse (Thailand) as it is not an IT company. However, several databases of Notes containing a variety of information can be accessed only by managers in Chemhouse (Thailand). The databases of Notes, then, act as a tool which Chemhouse group can get the same information, timely and securely.

The staff of Chemhouse (Thailand) do not favour in the technology as IT companies because it is realised by the staff that Notes can lead to conflicts in communication. This may be because the staff are not used to the use of technology and they are less likely to rely on the technology as a mediated tool in the interactions among staff than the staff in IT companies. As a result, Notes is believed to inhibit, rather than to improve the interactions within Chemhouse (Thailand).

“...I feel that we tend to have arguments when we use email. Especially, when we write in English, it can be misinterpreted. For example, someone use ‘must be’ to inform me. Is he my boss that he ordered me to do?...we can type in Thai but there is sometimes one foreign director that I have to CC...” (Finance manager)

6.3 Factors that affect the development of Notes identity in organizations

This section discusses the reasons why Notes identities are created in the organizations by considering the organizational contexts and other IS implementation.

6.3.1 Influence of IT and non-IT organizations on Notes identity

As all of the IT companies that have participated in this study are partners of IBM, this has an impact on the identity of Notes in these organizations since the staff need to adopt Notes so as to be a reference site for their customers. The distinctive Notes identity are more likely to be
perceived by the staff of ComNotes and Comtech than the staff of Procom. This may be because these companies focus on IBM software as their main products, whereas Procom does not deal with only software products but also hardware. As a consequence, the staff of ComNotes and Comtech are more specialised in software adoption than Procom. Since Notes is the main product that they promote to their clients, ComNotes and Comtech have chosen to implement it and adapt it into their business processes. On the other hand, Procom does not focus on Notes as its main product. Hence, Notes was not developed fully nor well-integrated into business functionality.

However, the reason for Notes implementation in the three IT companies are different to the non-IT case that was examined in this study, that of Chemhouse (Thailand), in which license fees of Notes need to be paid per individual account to IBM. Thus, Notes is not utilised throughout the Chemhouse (Thailand), but only by the key people such as finance, HR and purchasing managers in order to co-ordinate their work. In addition, individual staff in the IT companies have their own PCs, while the number is limited to some staff in Chemhouse (Thailand). Having considered the different implementation in these cases, Notes identity is then developed as a tool for communication within the IT companies, but it is not realised as a communication tool between staff within Chemhouse (Thailand).

6.3.2 Influence of SMEs and large organizations on Notes identity

The IT organizations adopted in this study were SMEs, whereas Chemhouse (Thailand) is characterised as a large organization as it is a subsidiary of an international company. Having compared the difference between the impact of SME and large organizations on the creation of Notes identity, it is unlikely the staff in such large organization share relevant information across different departments through the same applications of Notes within their organization. This may be because it is divided into several functions which is more difficult for them to find and share relevant information. In addition, most users of Notes in Chemhouse (Thailand) are managers of functions. Thus, they tend to work with Notes independently, rather than sharing information. Similarly, though Procom is characterised as an SME, its structure is several subgroups. Hence, the staff found it is not useful to perceive and use Notes as a co-operation tool since the information is unlikely to be relevant to others.

"There is an obstacle in sharing knowledge with colleagues. Though, we’re in the same department, we focus on different products...If the knowledge is relevant to each other, we will share. " (System support engineer, Procom)

In contrast, in ComNotes and Comtech, where its structure is simple, users are likely to perceive Notes as a share tool in their group for co-operation.

"It’s a small group here. It’s a small number of people who always do the same thing...If it’s getting bigger, it’s not going to be people in the same field. So, it makes difficulty in searching for what we know from databases. " (A developer, Comtech)

6.3.3 IT availability within organizations

In the cases of Procom and Chemhouse (Thailand) Notes identity has been blurred. In these organizations Notes is not seen as unique or different from other IT tools. Rather, its features of Notes are seen as overlapping with other tools such as ERP systems, and the file sharing server. Thus, a unique identity of Notes becomes more difficult to develop and the staff may not clearly see how they can benefit from Notes apart from using other existing tools.

In contrast, in ComNotes and Comtech, from an early stage in its implementation, Notes has been clearly promoted by management or other mediators (e.g. trainers), and was differentiated from other applications to the extent that its identity as a unique business application became widely accepted.
7 DISCUSSION AND CONCLUSION

The identity of Notes plays a major role in explaining how people make sense of Notes in order to interact with it. The findings illustrate how different identities are created. Several factors have been found to explain the different identities and these are related to the role of mediators such as manager or trainer, the organizational contexts such as IT or non-IT companies, SME or large organizations, and IT availability in general within the organizations which would drive or inhibit staff in using Notes. Shared identity of Notes becomes apparent as the mediator influences users’ interpretations by providing them with understandings, images, concepts, knowledge and heuristics about Notes, although different technological frames may occur as there are various types of people with different roles. Therefore, mediators are found to influence the adoption of Notes in the case studies as they themselves make sense of the technology in relation to the specific needs and circumstances generated by the local context in order to adapt the local context of use by modifying features of the technology, promoting use, or establishing appropriate communication norms (Bansler and Havn, 2004b).

Such roles may be of particular importance within the context of SMEs. For example, as it was found in this study, the size of the organization has an impact on how Notes identity is created through sensemaking processes. The evidence can be found in ComNotes and Comtech where Notes is utilized by a small group of people, or even the identity which have been shared among the people in the same departments in all IT organizations, whereas it is more difficult for the members of Chemhouse (Thailand), where all the policies on the use of IT were directed from abroad whilst no one within the company acted as a mediator to drive the use of Notes. As a result, Notes identity in Chemhouse (Thailand) seems to be unclear among staff. As argued by Bansler and Havn (2004a), the creation of a new identity is successful, as long as it is confined to a small group of people since sensemaking are local activities. In addition, not only does the organization size affect the perception of Notes identity, but also the other IT available which may minimize the efficiency of Notes use. In both cases of small (Procom) and large (Chemhouse Thailand) organizations in this study, the findings yielded that the perception of Notes identity may be blurred when other systems are in place. Hence, this could influence Notes identity in these organizations.

Further, the finding that managers act as mediators in identity development may be explained by the fact that the study was based in a developing country, Thailand, where managers grasp high power in Thai organizations and Thai culture is rather group-oriented in which people attempted to avoid conflicts. However, the influence of national culture on the organizational IT sensemaking processes remains to be explored and this is on the agenda for future research.

The empirical understandings generated in this study have implications for adopting and using IT, which is adaptable and customised over time. In order to ensure and promote implementation success, it is important for managers to realize how to cultivate a shared perception and understanding of the identity of IT in their organizations, especially for the collaborative tools where people need to share the tool for a specific purpose such as knowledge sharing.

References

