

Mobile phones use and social network development among small Malaysian retailers

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Abstract

In much literature on social capital, it has been a widely held assertion that networks of informal relations is beneficial for the development of local regions as well as larger nations (Fukuyama 1995; Putnam 2000; Woolcock 2001). Regional areas with a well developed network of informal connections and communities are believed to produce benefits leading to increased regional competitiveness, economic growth and prosperity. The last decade mobile communication tools have rapidly saturated several emerging markets in Asia and Africa (Donner 2008; Kumar and Thomas 2006). As a tool that is mainly used to connect individuals across space and time; mobile phones appears to have qualities that can spur social capital development for private persons as well as enterprises and larger regions. In line with this, some recent studies have found support the argument that mobile phones is beneficial for regional and local development (Goodman 2007; Jensen 2007). Still, others has been more reluctant and critical towards the “network effect” coming out of mobile phone usage among small enterprises (Chowdhury 2006) and some studies has found that private ties, rather than business relations are strengthened through the implementation of mobile phones (Donner 2004).

This paper addresses the question of mobile telephony usage and local development by looking at how mobile voice dialogues and SMS (text messages on mobile phones) are used by small enterprises in Malaysia. More explicitly, the study explores the kind of relations that are supported by these tools during the work day, as well as their physical proximity and perceived importance for business development. The study is based on in-depth studies of 12 small enterprises (between 5 and 20 employees) operating within agriculture, retail and financial services in the Selangor district. The paper presents initial findings, indicating differences in mobile phone usage between the three sectors, and highlighting general trends cutting across all sectors. Methodologically the study draws on quantitative social network techniques (to map mobile calls and SMS messages during a week), as well as qualitative interviews with managers and a sample of employees in the enterprises.

The results adds to the emerging literature focusing on the impact of mobile communication devices on developed and developing countries in Asia (Donner 2008). It provides detailed descriptions of daily usage of mobile phones within central enterprise sectors. The results also contributes to network oriented studies on the impact of mobile phones on professional users social networks (Bryant, Sanders-Jackson and Smallwood 2006; Eagle, Pentland and Lazer 2007; Licoppe and Smoreda 2004; Lonkila 2004). The study is part of an ongoing research project exploring usage of mobile phones among small enterprises in selected Asian countries.

1. Introduction

Small retailers are a familiar sight wherever you go in Asia. Small shops selling food, beverages, T-shirts, souvenirs and much more are so numerous in most cities that it is practically impossible to avoid running into them. Despite their omnipresence the smaller retail enterprises often get little attention in the public debate and their economic impact is often neglected. Yet the smaller enterprises are overwhelming in their volume, in Malaysia as in most Asian countries. In Malaysia the thousands of small retailers are not only central to provide the population with workplaces; they are crucial to meet the bulk of Malaysians' needs for food, clothing, everyday services, and much more.

Even though small retailers' investments in technical equipment often are minimal, they have proved to be early adopters of mobile phones. Today it is close to impossible to find a Malaysian retailer without a mobile phone or two within reach. Mobile phones – or “hand phones” as it is usually called in this part of the world – has become part of retailer's standard equipment alongside paper, pencils, fax machines and cash registers.

In most papers dealing with communication technologies and enterprises, mobile phone use is seen as a part of the general uptake and use of information and communication technologies (ICT). As such it is has been warmly greeted by politicians as well as researchers as a way to make the small enterprises more efficient and competitive (Saleh and Ndubusi 2006). During the last decade the advent of mobiles has triggered the hope that this can be used to strengthen the small enterprises' role in the economy. Alongside other initiatives increased uptake and use of communication technology is believed to be one central way to help Malaysian SMEs to become more efficient, innovative and competitive (Ting 2004). In a report from UNDP it is hoped that ICT would help to connect Asian SMEs into more efficient industrial clusters:

“The vast potential of ICTs to assist SME lies in their capacity to instantaneously connect vast networks of SME's across geographical distances at very little cost “ (UNDP 2003, p 33).

However, mobile phone may not necessarily work in the same way as computers, and in fact a large group of SMEs does not even have access to a PC at their workplace. Retailers are in general much more dependent on mobiles than on computers. If we are to understand the role of mobile phones for retailers in Malaysia and elsewhere a more nuanced approach to the analysis of mobile phones is necessary. This paper addresses this issue and sets forth to investigate the way mobiles are used in this large group of users, and more precisely the way it is used to support the social relations and networks that connect their enterprise to the wider networks of partners and collaborators. This paper then links up to the discussion of how mobiles can support and strengthen the social capital of

small retailers and in society as such (Arrow 2000; Goodman 2005; Katz and Aakhus 2002; Ling 2004). Based on a small set of cases this study provides insight into the kind of communication that is supported through the use of mobiles, including SMS as well as voice communication.

The structure of the paper is as follows: In the next part (2) we will outline the *role of small retailers in Malaysia* and explain why it is interesting to study social networks related to these companies. The third part outlines the *research approach* we use in this study, and we will rely on a very general framework proposing that social relations represent social resources for individuals and enterprises in the form of social capital, that can be developed, sustained and mobilized by the use of mobile phones and other available ICT. The fourth section presents the *methodology* used, and in the following (fifth) part *case studies* of small retailers situated in the Selangor district in Malaysia is presented. This chapter has a descriptive style, drawing on qualitative as well as quantitative data. In the sixth part we will discuss the findings in more detail, highlight some of the core insights, and discuss the role mobile phones seems to play in supporting the retailers' relations and [therefore also] their social capital.

1.1. Small retail enterprises in Malaysia

Small enterprises are not a very homogenous group in Malaysia or elsewhere. Often lumped together within the overall "small and Medium sized Enterprise" category (SME), this classification tends to mix companies of very different types and qualities.^{††} In general however, small enterprises are expected to have fewer than twenty employees. Micro enterprises are usually considered as a subgroup including enterprises with five or less employees.

Even though the definitions of small enterprises often vary across national statistics, there is no doubt that this group represents a large bulk of enterprises in most Asian economies. According to a recent study 99.2 % of Malaysian business establishments are small or medium enterprises of which as much as 411,849 are micro enterprises (SMIDEC 2006). Small enterprises are usually found within the three broad sectors; agriculture, manufacturing and services. Retailers represent the largest groups within the latter category, and there are at least 150,000 retailers in Malaysia today (Saleh and Ndubusi 2006). In addition there exist a significant number of informal retailers, operating outside the official statistics. The exact number for this for Malaysia is difficult to estimate, but looking at similar numbers in other Asian countries it is likely to be significant (Vandenberg 2008). Even if this sector

^{††} Different definitions are used to classify small and medium sized enterprises (SME). In Malaysian statistics SME is used to describe enterprises that have less than 50 employees and a turnover less than 5 million RM. Medium sized enterprises have from 20-50 employees, small enterprises from 5-19 employees and micro enterprises less than 5. Criteria for turnover are sometimes also used in addition or as a supplement to numbers of employees. (see also Saleh and Ndubusi 2005)

involves a lot of companies and employees, the retail sector consists of many small units: Over 85 % of all retailers have less than five employees and over 99.2 % have less than 20 employees.

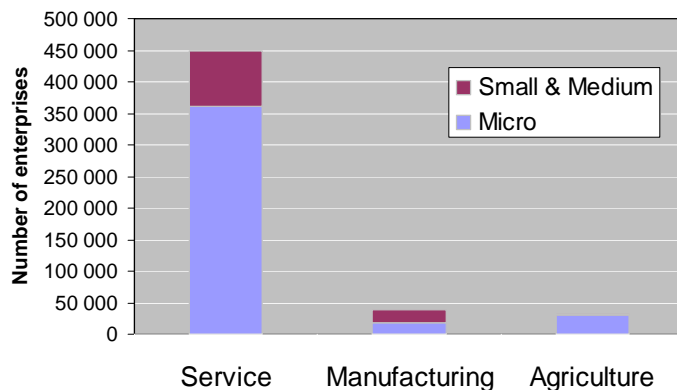


Figure 1 Overview of number of small enterprises and category, Malaysia 2005 (Source: SMIDEC)

The large number of small players makes the retail sector flexible, but also vulnerable. It is flexible because it can adapt quickly to change in accordance with shifts in the economy; small companies are easy to set up but also easy to close down if necessary. In many cases small retailers have more than one business going on, so phasing out one does not have to be highly dramatic. However, it is also vulnerable because smaller companies might have less resources to spend on building up competence and knowledge necessary to increase competitiveness. Their capacity to spend time and resources on for instance implementing new technical solutions is usually very limited. Thus many small retail companies run the risk of being wiped out by larger retail stores offering cheaper products of increased quality (Saleh and Ndubusi 2006; Ting 2004). The fact that retailers in general are organized as multiple small entities makes interaction and collaboration with other parties particularly important. Small retailers usually need to be in contact with at least a handful of suppliers or wholesalers, as well as getting continuous help from friends and family members. As we will come back to later in this paper there are often different types of partners or contact persons involved as well.

A particular common constellation in Asia is *the family businesses*, where the boundaries between family members and employees is highly blurred. In such businesses family ties often connect clusters of small companies that collaborate within certain branches, as when father, sons and in-laws establish similar businesses within the same sector. Such enterprises are famous for setting high value on a dense network of informal social relations (“guanxi”) (Millington, Eberhardt, Wilkinson et al. 2006; Sin 1987). Although Malaysia is a multicultural nation, the Chinese part of the population is dominating among the small retail shops. This makes the Chinese business culture a part of the cases we discuss in this paper. We will come back to this in the last part of the paper.

3. *SME in a network perspective*

3.1 Social capital theories

Social networks has for a long time been recognized as a central theoretical and methodological approach to studies of small enterprises (Kilduff and Tsai 2003; Monge and Contractor 2003; Tichy and Fombrun 1979). Several recent studies have suggested that the social relations cutting across small enterprises is a vital element for sharing of knowledge and business innovations (Greve and Salaff 2001; Knoke 1999; Powell 1996). Such benefits are often described as *social capital*, i.e. a form of resources embedded in a particular set of social relations and networks operating across the boundaries of the individual enterprise. Different variations of social capital theory exist, emphasizing structural, relational or cultural aspects of these relations (Field 2003; Nahapiet and Ghoshal 1998; Portes 1998). A full review of the large theoretical field of social capital falls beyond the ambitions for this paper. For the purpose of this work it is sufficient to note that according to theories of social capital, social relations represent resources that can later give returns. As a form of capital, the relational (social) capital is however less tangible and less of an individual possession than money, stocks or property. Needless to say, perhaps, this type of capital is also much more difficult to analyze and measure.

Social capital oriented approaches to organizations is frequently linked to other theoretical positions, such as resource dependency theory (Knoke 2001; Lin 2001). The resource dependency theories are a point of departure for Nan Lin who explicitly locates social capital in the tradition of *neo-capital theory* as well as in Granovetter's description of network as important *embedded resources* for economic actors (Granovetter 1985; Lin 1999; Lin 2001). From his point of view, social capital is seen as investment that actors make in social relations with the hope and expectancy of some form of return at a later stage. These are returns that go beyond what is usually accounted for by traditional "capital". In general it facilitates four types of returns: the *flow of information*, that can be used to *exert influence* on other agents, it helps build up *social credentials* and *reinforces identity and recognition*. For instance by forging a tie with a specific other SME, a retailer may get access to useful information about a supplier or wholesaler at a later stage. Or by forging a tie with a powerful wholesaler it might build up his reputation as a trustworthy partner, increasing his social credentials and reputation. On an analytical level Lin distinguishes between both instrumental and expressive returns: The first type includes economic and political returns; the second includes returns in the form of mental and physical health and other forms of life satisfaction.

Following Lin, we may draw a distinction between network structure, accessibility of resources in a network, mobilization of these resources and potential returns. In contrast to some other approaches, this approach perceives an actor's position in a network (or a particular structure), not as

social capital per se, but as factors influencing the ability to get access to resources. The accessibility of resources is analytically separated from general collective assets such as trust and social norms, even though these affect on the ability to access resources in a network (See model below). Finally the accessibility is seen as distinct from the possible *mobilization* of these resources and the *returns* that they can give.

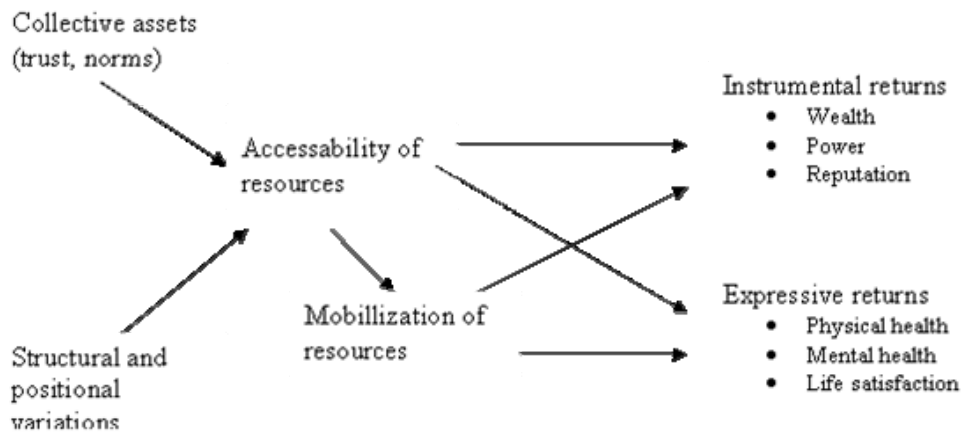


Figure 2 A general social capital framework (Based on Lin 1998)

Figure 2 shows this rough conceptual model informing our study, based on Lin’s conception of social capital as a resource. Trust is here seen as a quality of a particular dyadic tie or as a generalized norm perceived as one crucial factor that affects on the accessibility of resources in a network. In SME networks where trust is high, more resources can be expected to circulate between partners, and less effort is needed to check or secure against fraud or cheating (Rousseau, Sitkin, Burt et al. 1998). We would like to add, however, that (increased) trust also can be seen as an important return, usually strengthening positive feelings and what Giddens calls “ontological security” (Giddens 1994).^{‡‡}

Clearly, it is possible to think about relations as resources not only for individuals, but also for the larger organization and constellations of organizations. Social capital can also represent *collective goods*. Most theories in this field agree that social capital operates on both micro and macro levels,

^{‡‡} The role of trust for network developments among enterprises is more closely described elsewhere. See Bachman (2006) and Kramer (2004).

even though the boundaries between these levels are indeed fuzzy ^{§§***} (Field 2003). It is frequently held that SMEs connected in larger clusters may represent significant benefits for people working in the enterprises, the organizations, as well as for the larger region they belong to (Fukuyama 1995; Putnam 2000). Still, even social capital figures on a group or institutional level, it is the employees and managers in the enterprises who make the maintenance and reproduction of social capital possible. It therefore makes sense to analyze social capital as individual relations and networks.

Our paper focuses mainly on the types of relations and networks the managers and employees access through their daily usage of mobile communication. We will however direct attention to the mobiles as a tool to develop accessibility and mobilize resources.

3.2 Type of relations

What kind of relations is important for small enterprises? Following economically oriented studies, on an overall level a distinction is often drawn between three general types of relations: *informal social relations, market relations and hierarchical relations* (Adler 2001). The difference and current transformation between these networks in modern markets is widely discussed in economic literature. For instance, recent contributors have argued that the informal relations is becoming more and more important in modern organizations, at the expense of the other two, propelling a more community oriented type of organization (Adler and Heckscher 2006). Most business relations consist of a mix of these dimensions rather than being purely market based, hierarchical or social (Adler and Kwon 2002). In particular, relations in small enterprises tend to blur the distinction between the private/social, market related and hierarchical (Shaw 2006). As already mentioned, the informal relations tend to play a particularly important role for many small enterprises in Asia (Sin 1987).

Not only do the different coordination mechanisms of market, hierarchies and informal ties play a role when targeting the small enterprises networks. Also the *quality of the ties* should be considered important. From a more actor oriented point of view, a branch of studies has focused on the quality and the quantity of the enterprise managers' individual social networks (Shaw 2006). One central finding from these studies is that because relations are created by processes of ongoing interaction, their structure fluctuates and their boundaries are usually "fuzzy" (Johannison 1986). And because the managers are embedded in such fluctuating networks it is unlikely that they will make decisions about their firms in isolation from these influences. Another central finding is that the size and constellation of the individual network affect on the efficiency of the manager and their company.

^{§§} Definition of social capital tries to capture the multiple levels. Nahapieth and Ghoshal, for instance, state that this is: "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal 1998).

^{***} In organizations, a distinction is sometimes made between individual and corporate social capital (Gabbay and Leenders 2001).

For entrepreneurs the value of having a rich network of contact persons has been documented as vital, in particular in initial stages of the development (Krackhardt and Kilduff 2002). Still, these personal networks are not assembled within a single type of relations, but are found in private realms of life as well as among business colleagues or partners.

The core area of interest for the bulk of social network studies lies within the realm of informal social networks. Such relations are in turn often categorized as *stronger or weaker*, where the weaker form is typical for occasional interaction between acquaintances while the stronger form is more typical for relatives and close friends^{†††}. Much research has elaborated on the distinction between strong and weak ties and a general argument coming out of the “strength of weak tie” hypothesis is that weaker ties have benefits related to giving access to new information that make them particularly important for knowledge development and information access. On the other hand, stronger ties have proven to be more important for the development of trust and stability as well as the transfer of tacit knowledge (Coleman 1988; Hansen, Podolny and Pfeffer 2001; Krackhardt and Stern 1988). Still, it is difficult to make an absolute distinction between strong and weak qualities of relations. In practice most work-based relations fall somewhere “in between” the weak and strong ties (Krackhardt 1992; Nardi, Whittaker and Schwarz 2000). In small enterprises most weak ties will typically go beyond the individual enterprise towards people in other businesses or organizations. Stronger ties are on the other hand more common for the internal relations to colleagues and managers. As in all organizations, however, the formal ties and the more market oriented relations will interfere with the more informal ties.

In network studies some bodies of work have been particularly occupied with analyzing the overall *structure of ties*, related to social capital. From a whole-network point of view social capital is a product not only of the kind of relation but the constellation of these ties in denser or more open structures (Burt 2005; Coleman 1988). The value of denser communities is sometimes contrasted with the benefits of more open and wide spanning networks connecting distant clusters. Still, empirical evidence suggests that the value of particular constellations must be seen in relation also to the type of relations involved and the particular type of organizational context involved (Hansen, Podolny and Pfeffer 2001; Podolny and Baron 1997). Following the framework suggested by Lin (presented above) structure and structural positions are not social capital per se, but important factors impacting on the accessibility of resources.

In summary then, an examination of the SMEs networks, important to the development of social capital, should include relations based on informality (like friendship) on hierarchies (like manager-subordinate), on markets (buyer-seller), and any combinations of these. The intensity of these

^{†††} The concept was initially proposed by Mark Granovetter. According to Granovetter tie strength can be described as ties that have a combination of long duration, high emotional intensity, intimacy and reciprocity (Granovetter 1973).

relations will vary over time, as will the particular quality of a relation: A business relation can turn into a friendship and a friendship might develop into a family tie. Following the social capital theoretical framework outlined above, such networks represent resources that can be mobilized for the return of instrumental and expressive returns.

3.3 Social networks and mobile communication

According to most network approaches *regular communication* between partners is a criterion for the development of social networks. When actors meet and opportunities for forging lasting social relation are present, fraud or other negative experiences may hamper the development of relations (Blau 1964). The general point of view shared by most network analysis (and social capital theories) is that communication between humans may over time develop into relations and networks (Licoppe and Smoreda 2004; McPhee and Corman 1995; Rogers and Kincaid 1981; Tilly 2005). Following this line of thought, modern ICT and mobile telephones, representing “communication enhancing devices”, should have much to offer small enterprises in developing, strengthening or exploiting their social capital. Some recent studies have provided some evidence that there *is* a positive link between social capital and mobile phone usage on community level. Goodman found in two (non-representative) surveys from South Africa and Tanzania that mobile phone users were more active in participating in local community groups than non-users. The mobile users also had a wider network of both weaker and stronger relations than non-mobile users (Goodman 2005). Action research with female entrepreneurs in India also seems to support the idea that the mobile can be used to develop social relations and increase social capital (Joseph 2005).

Referring to Lin’s general model above, the mobile phone offers opportunities to strengthen enterprises’ social capital in different ways: First it can be used to *invest in social relations* and resources. In this way it is a tool for keeping relations alive and “giving” partners and collaborators attention and support. Mobile phones may make it more easy and convenient to develop and sustain social relations, and SMS and MMS have proven to be important as a tool to sustain both affective and instrumental communication, even at work (Ling and Julsrud 2005). Second, it can be used to *increase their accessibility* to others. Just by having a phone the employees or managers can more easily be reached by millions of others even when outside offices. Third, it can be used to *mobilize resources* in a pre-existing social network. Given that a manager or employee had access to a certain network of relations the mobile phone can make it easier to exploit these resources in a very short time.

In practice, it is difficult to distinguish strongly between these processes. A typical communication situation between partners or friends may include a mix of different purposes. A meeting between people is typically interconnection for information exchange where giving and taking is interconnected. However, insight indicating *whom* employees and managers in SMEs call or send

messages to during the day, can give some indications to what kind of resources they access with their mobile. The study presented here analyses these mobile supported networks by quantitative as well as qualitative methodologies. Our focus here is in particular on how mobiles influence on the accessibility and mobilization of resources.

4. Methodology

4.1 Comparative case studies

This study is based on a series of case studies^{###} of small enterprises in Malaysia. Comparative case studies usually deploy a cross-case design, where several similar cases are compared (Miles and Huberman 1994; Yin 2003). Typically such studies intend to explain similarities between different cases, or differences between similar cases. In any way the cases are connected, or part of the same group, in one way or another. A distinction is usually made between studies that are case-based or variable-oriented (Miles and Huberman 1994). In this paper a “mixed strategy” is used, where case-based and variable-based methods are combined (Miles and Huberman 1994 p 176). First we will focus on the cases one by one, second we go on to analyze certain variables cutting across all cases related to their social network use. In this second phase, the analysis thus becomes more variable-oriented and focused on developing theory.

4.2 Case selection

The cases in this paper are selected on the basis of their general belonging to the category of “small Malaysian retailers”. Moreover, they are all located in the Kuala Lumpur district, meaning that at least the general national and regional cultural context can be expected to be fairly similar. The cases differ, however, along the dimension of size and branches; two of the cases are smaller (below five employees), one is slightly bigger. They are also picked from two different sub-segments; food and beverage, and motor equipment and vehicles. This “slight diversity” was allowed to capture some of the diversity in practices within the segment “retailers”.^{§§§}

^{###} In general, case studies can be described as a research strategy aimed at studying a limited number of phenomena within their natural context. Yin describes this as: “an investigation of a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident.” (Yin 2003, p.13).

^{§§§} Note that the three cases presented in this paper are part of a study of a larger number of SME cases from different business segments.

4.3 Techniques and tools used

The study is based on a mix of qualitative and quantitative techniques. For the *qualitative part* we conducted interviews with managers and, to avoid a “managerial bias”, two – three employees in all enterprises. For each enterprise three employees were selected randomly. The interview lasted for about 30-50 minutes and was recorded and later coded and analyzed with the appropriate software. In addition, we asked the manager to draw his network of relations of relevance for his daily work.

The *quantitative part* involved a short survey distributed to all employees in the companies. The questionnaire included a general information section asking about informants’ age, type of work, media usage, subscription type, and work mobility. The second section was used to track the individuals’ networks based on their most recent use of mobile phones. A traditional ego-network design was included to capture ingoing and outgoing phone calls, text messages (SMS) and e-mails (Carrasco, Hogan and Wellman 2006; Wellman 2007). Rather than using a traditional name generator, however, we based the personal network on the actual incoming and outgoing mobile traffic. To do this we first asked the informants to open the call directory in their mobile phone. Then we asked them to read off and register the last ten ingoing and outgoing calls and messages, and classify them in accordance with seven pre-defined categories. The same procedure was then followed for SMS.

Mapping media use as relational networks has the advantage that it gives a more detailed picture than traditional “average scores”. It gives an indication of the type of relations that the media are used to support, groom, instruct or exploit. Tracking media use based on record logs is a more reliable way of getting data than based on informants’ memory (Bernhardt, Killworth and Sailer 1982). There is of course a risk that individuals do not register what they see in the blog or that they change this to make them more “central” in the enterprise. We have no reason to believe, however, that this happened in our study. Analyzing social networks based on mediated interaction runs the risk of being one-eyed and concerned about only a few media channels, forgetting about communication taking part in different media and channels (Julsrud 2008). We should not therefore expect the networks expressed through media-based to reflect a “correct” picture of social relations or communication going on in the enterprise. What it *does* give is an indication of what kind of relations that mobile phones and SMS were used to support. Here we will balance the traffic diagrams with the information from the qualitative inquiry.

5. Case studies

5.1 LHL Wholesale

General: This enterprise trades dry foods from a central location in Ampang KL. The central food storage is also an outlet selling to smaller retailers and individual customers. Related to the enterprise is also a small network of shops located in the KL area. At the central premise orders from the smaller outlets are handled, as well as orders from drive-in customers. The enterprise includes about 20 employees, of whom a significant part is foreign workers. For LHL there were basically two different kinds of customers coming to the store; small visitors buying goods or small retailers buying larger amounts of goods. Both required however person-to-person interaction with the staff.

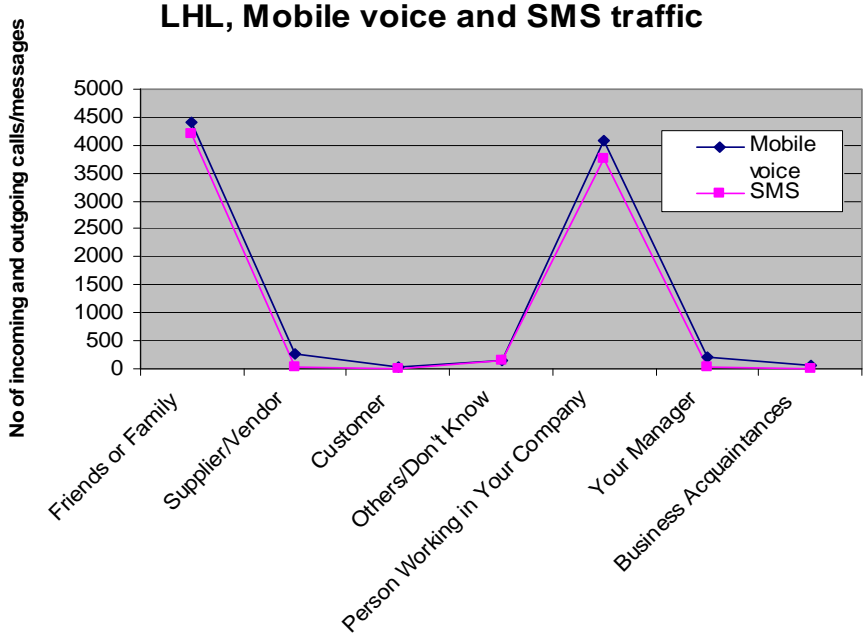
Work task: All retailers were involved in some manual work tasks in the shop or warehouse, including sending or packing the goods to customers. As for LHL it involved filling up lorries and cars with the assigned products and filling up the stock with new goods as they arrived. The manager was very central in all work, even though he delegated some responsibility to the warehouse manager and the administrative officer. This officer was in charge of a lot of the contact with the foreign workers and the two drivers. The manager was the only one that communicated with the suppliers. Much of the day-to-day work in the store was coordinated by informal communication among the workers. Typically they would turn to each other for immediate information about where certain items were located. A large group of foreign workers operated in the warehouse, and the informal communication seemed to be more active among these workers.

Key Relations: LHL was, according to the manager, a “typical Chinese family business”. Connected to the enterprise were five other outlets run by relatives of the LHL manager. This core network of family members was essential. In addition, a network of suppliers was important for LHL. This included 2-300 different producers of drinks, sweets, cigarettes etc. The manager of LHL also had strong ties to other small enterprises in the local area and elsewhere, and sometimes he would mobilize these contacts to buy larger stocks of goods at lower prices. To the core network we should add a stable network of customers, mainly small retailers in the KL district.

Media access: In LHL the mobile was used on a daily basis by all employees. The manager used the mobile phone book as a “memory” when being contacted by customers. It is worth noting, however, that even though the mobile was the most used medium, there were PCs available in all enterprises, and at least by some it was used on a daily basis. The use of the computers was however very basic, usually limited to surfing on the net and exchanging emails. Telefax was used daily to communicate with suppliers and other outlets.

Use of mobile across networks: Looking at the phone calls conducted in the company for the last ten days it turned out that SMS and mobile calls followed very similar patterns. Most calls were to family and friends and to colleagues at work. The mobile was a central tool for coordinating work tasks to the other outlets, to the drivers and to coordinate work at the shop floor. Probably, a lot of the

calls to family members was due to the fact that partners in the firm actually also *are* family members. This is the case for brothers operating outlets in other parts of the KL area. More importantly, however, many employees in this company were foreign workers. An important reason for them to buy phones was to keep in contact with family members in their home country. As such, this makes the family/friends category very large. The similarity in the use of SMS is striking, and an analysis of incoming and outgoing calls/messages also indicates a strong reciprocity in the in- and outgoing calls/messages.



5.2 Kang Zheng

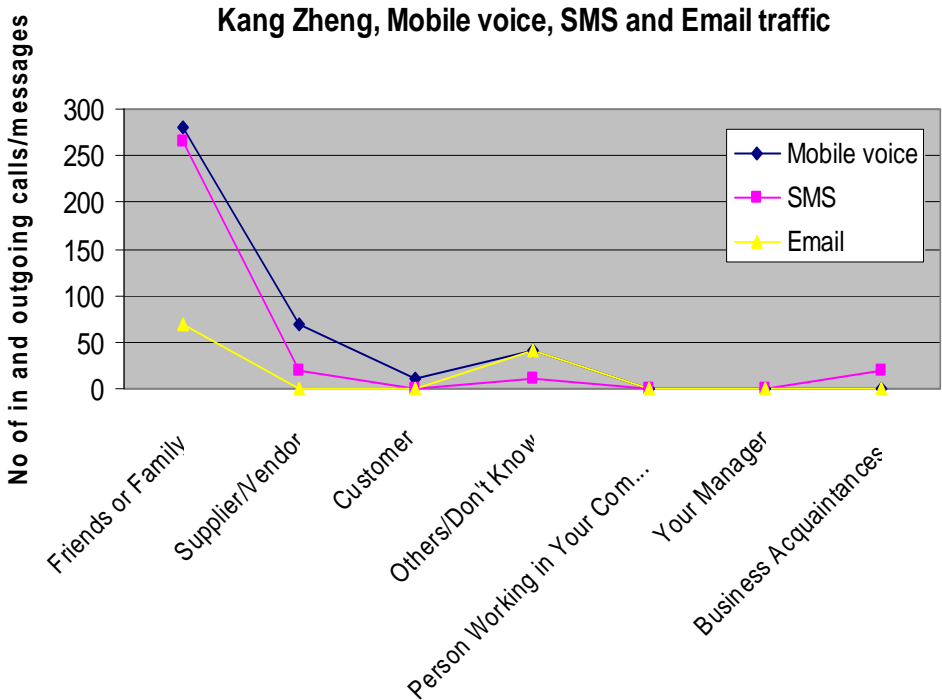
General: Kang Zheng is a small outlet in the Subang area of KL that trades herbs and traditional grocery goods. The main business is the selling of the herb medicine, while the grocery is a side business that gives them additional income. The shop is run as a small family business, including man and wife as well as a young Cambodian assistant.

Work tasks: Most work is conducted at the small shop, where customers come and buy herbs recommended or prescribed by Chinese doctors. In addition, there is administrative work related to ordering, billing etc. The family sometimes get help and assistance from relatives running a grocery shop in a town nearby.

Key relations: The closest partner was the relatives nearby who did similar business. But also neighbors were counted in as important relations. The manager had established a close collaboration

with doctors prescribing herbs as a part of the recommended treatment for patients. This had turned out to be a central part of the business for the small company. In addition the enterprise had a set of suppliers feeding the regular shop with food and beverages.

Media access: At Kang Zheng the mobile was used in combination with landline available in the shop. Most calls were made from the mobile, and both partners had individual lines. The couple had a special arrangement; the man had a phone that was used for work purposes, while his wife’s phone was used for private calls. A PC in the backroom was used by the husband/manager, mainly to surf the web looking for prices and products.



Media use across the networks: As for the former enterprise most calls were also here to/from friends and family members. SMS use is in general sent to the same persons as are being called. The suppliers, however, are supported more frequently by the use of mobile phone calls than by the use of SMS. Compared to LHL the company internal calls are lacking, but this is obviously due to the small size of the enterprise.

5.3 Meng Chong Motor

This enterprise has been in the motorcycle repair business for 18 years. It span off from the husband of the owner’s involvement in licensing motors and road tax payments. The business involves

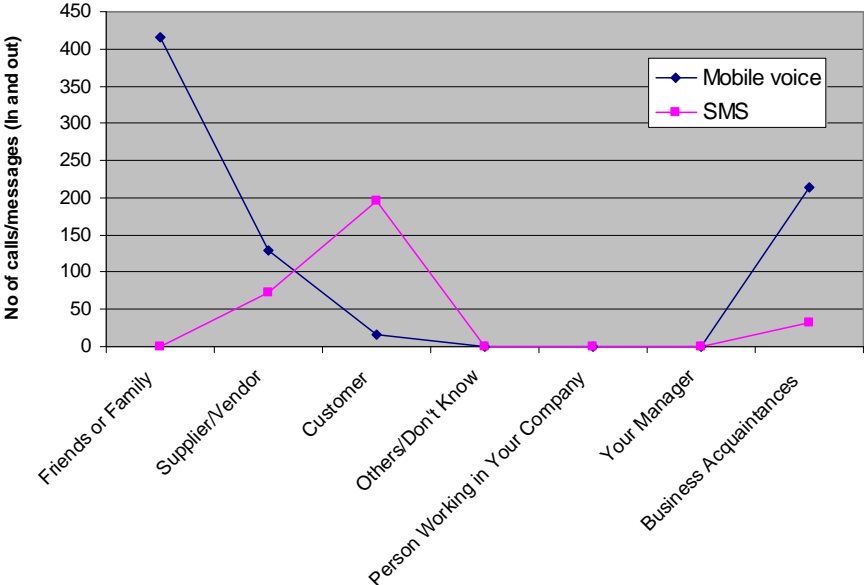
insurance, spare parts repairs, and buying and selling of motorbikes. As a side business, this small retailer also handles insurance of motor vehicles (mostly from walk-in clients) and helps some foreigners apply for international license by sending remittances to Indonesia. To help in the business, one senior mechanic and one temporary employed mechanic from Myanmar are employed.

Work tasks: The main work processes are motor repair, ordering spare parts, handling motor insurances, renewing road tax, and collecting money. There is no record system for an inventory of spare parts. What is usually done is to separate parts by brand, find the parts when needed, and order when there is no more stock.

Key relations: This SME’s network consists of three suppliers of spare parts, two insurance companies, an agent in Indonesia for the remittance side business, and other shops within the area which do not have insurance products and buys from them. Among the motor repair clients within the community, they have over 100 insurance customers every month. The network of customers was very local, and a lot of the customers were returning ones.

Media access: The mobile was used on a daily basis as suppliers of spare parts call every day to check any orders. The senior mechanic received phone calls from suppliers to ask about stocks (ask about price, availability of stocks). Voice call was preferred because it is faster. The senior mechanic also received calls from clients regarding motor repair. The other mechanic used his own mobile but mainly for personal use (e.g., calling his family in Myanmar).

Meng Chong Motor, mobile voice and SMS traffic



Landline was used as a back-up device when the employee could not connect through the mobile or the reception is not clear. Sometimes, calls were made ten times to coordinate, and to check prices and stocks with suppliers. The fax machine was used more for insurance, road tax, invoice, and to communicate with agents in Indonesia on the remittance side business. Two computers were used regularly by the owner; one each for different insurance companies they made use of. The Internet is used simultaneously for insurance companies.

Media use across the networks: This enterprise displays a somewhat different picture than the other two enterprises. The family/friends ties are still dominating the volume of calls and messages. Mobiles are also used a lot to communicate with business acquaintances. This is certainly to a large degree to call contacts in the insurance companies. Still, SMS does not follow the pattern of the calls but is used primarily as a tool to support customers. These are customers for the auto shop as well as for the related insurance business.

6. Discussion

This paper proposes a social capital framework to better understand the value of mobile phones for small retailers in Malaysia. Given the premise of these theories; that social relations represent resources for enterprises, the way in which the mobile is used to strengthen or support these relations is of interest. In this section we will point at some of the core findings from studying mobile use among the three retailers and then discuss some implications for the future role of mobiles to develop social capital among Malaysian retailers.

6.1 Core insights

Mobile as a tool to support stronger ties: The mobile phone was in all our retail cases the most central tool for communication during the work day. Even though all actually had access to PC with Internet at home or in the back room, this was mainly a tool they used for searching on the web and Internet banking. We found however that the mobile was mainly used to support family relations and relations to friends. This is interesting given that we asked for calls made on the phone used for work. Accordingly, the mobile seemed primarily to be a tool to support the stronger personal ties also during work hours. This finding is in line with results coming out of similar studies conducted among SMEs in Africa. A survey of micro entrepreneurs in Rwanda, using mobile phone call logs, found that as much as two thirds of all calls were to family and friends. In a follow-up survey it was found that calls to friends involved as much as 45 % of all calls, and family members 26 % (Donner 2004; Donner 2006).

In our cases the findings can be explained by at least three central factors: Firstly by the fact that the small retailers operated in very close circles, relying heavily on family and friends. The networks of business partners were in most cases long-time relations that were based on trust rather than on formal contracts. This is in line with what has been written earlier on Chinese family businesses as having “strong family ties, sharing and pooling of resources, efficient use of manpower practice of thrift, use of low gearing and flexibility of operations” (Sin 1987). From our cases it appears that the retailers in Malaysia are developing their SMEs much in accordance with these traditions. In particular for the smallest enterprises (like Kang Zheng) family and work are very hard to separate, and sisters, brothers and parents were as much colleagues as family members. Secondly, in all our cases a significant number of employees were immigrants from neighboring countries. These workers use the mobile extensively to keep in contact with their families at home. Some employees said that their main motivations for purchase of mobiles were to make long distant phone calls to their home countries. This clearly contributed to the large number of family and friends calls. A third reason was that many employees in these small retail enterprises pay for their own mobile phone use, and use

the same phone for private as for business. In such cases the mobile phone becomes a hub for all kinds of social relations, not only work relations.

The fact that the bulk of mobile communication was to support ties with family and friends should not however be seen as an indicator of mobiles becoming a medium for non-work relations. On the contrary, mobiles are also used heavily to support communication with colleagues and partners during work time. For the somewhat larger SMEs (like LHL) the internal communication was actually as high as the number of calls/SMS to family and friends. Thus the internal day-to-day coordination was also an important use of the mobile. Among the retailers both mobile voice and SMS were used for private as well as business needs.

Mobile as tool to support internal work coordination: In the larger retailer and wholesaler companies the mobile was widely used as a tool to coordinate work during the day. The mobile was used to inform each other continuously about detailed work instructions, check out prices and give instructions to the two drivers. SMS was here seen as particularly convenient for communicating detailed information that needed to be “documented” or remembered. As such, it had become something of a channel for coordinating internal tasks, perhaps similar to how email functions in larger and more bureaucratic organizations (Tyler, Wilkinson and Huberman 2005).

An SMS-voice split in auto-case: In most cases mobile voice and SMS followed similar relational patterns; i.e. SMS and mobile voice were used in concert to support the same relations to family and friends, as well as to coordinate work. This is illustrated well in the LHL and the Kang Zheng cases. However, in the Meng Chong case we found a strikingly divergent pattern of use for SMS and mobile talk across the enterprise: SMS had developed into a customer-relation tool****. Here SMS was used to inform customers about their repaired cars and other customers about the insurance business. The side business, to support Indonesians to transfer money also generated a lot of SMS interaction:

”At 4.15 pm I will receive a SMS to notify me that the money already credited to the particular account at Indonesia and I will SMS to inform the Indonesian here who sends the money.” (Meng Chong manager)

Thus, SMS had here developed into a central tool for handling the business interaction. We should note firstly that this is possible, since the penetration among Malaysians now is so high that all their customers could be expected to have access to a mobile phone. Secondly, we should also note that this is probably particularly relevant for more service oriented retailers and retailers with regular customers.

**** In the study there was a very high reciprocity between ingoing and outgoing calls.

Mobile as coordinator in-between FtF meetings: As mentioned the SMEs relied heavily on a durable and local network of relations to wholesalers, suppliers and even customers. The suppliers of goods to the enterprises and their important partners were all based on face-to-face contact. The mobile was used to support these relations, although not as a replacement for face-to-face meetings, but to coordinate between these meeting such as taking care of the more instrumental communication in-between the meetings. Take for instance Kangh Zeng, the small herb dealer. The manager described that he mostly uses the mobile to coordinate prices and deliverables, and to clear out problems:

“Most of the time is ordering, sometimes when the prices are not stated in the invoice we also call them or when there is a problem with the goods when sent.”

Still the relations to the partners are mainly based on regular meetings in the shop. On the relations to the Chinese doctors the manager emphasizes this:

“Basically they are my friends; they will come here 1 to 2 times a month to share their experience in terms of the pricing, the medicine, the quality of the medicine, how to mix the medicine and herb because different herb have different use”.(Kang Zengh manager)

The supplier of other goods to the shop also comes to visit the shop regularly; the mobile is used to regulate or prepare in-between these meetings.

”They will come service us in two weeks, one week, or everyday. Every week they will come to serve. If we lack of something, then we will call them” (Kang Zheng, wife)

This herb dealer is clearly strongly attached to their business partners and suppliers, as was the case for the other retailers. For these relations there seems to be a strong need for physical meetings. The coordination in-between is however mainly dealt with by the use of mobile calls and messages.

Mobile as a relational data bank: Finally we found that in all retailers the mobile was used to keep track of relations to multiple customers. An important difference between a fixed line phone and a mobile is the possibility to save multiple numbers in the SIM card or the phone memory. For the managers in our retail business this is a crucial function. The manager in LHL, for instance, told us that he had all his core customers in his mobile phone:

”I rely on my mobile phone, because all the index is inside and I don’t need to dial all the number, that’s why I cannot loose my phone, if I loose the phone then my memory all gone...” (Manager LHL)

The manager in Meng Chong had two phones. This helped him to sustain a certain control of family and private oriented relations. The young couple running Kang Zheng, however, had another arrangement; the wife used her phone mainly for private calls and the husband took care of the professional connections. By sharing the responsibilities and using two phones the couple had a shared responsibility to handle different parts of their networks.

6.2 The impact of mobiles on retailers' relations and networks

Looking back at the resource based model of social capital presented earlier, a distinction was made between accessibility and mobilization of resources. From our data it seems clear that the use of mobiles affected directly on the retailers' *accessibility* to social relations and their resources in different ways. On the one hand, the portability of mobile phones made managers and employees more *accessible for customer*, as well as for each other and their network of collaborating partners during the work day. The managers and employees in our cases had abandoned the fixed line phone to increase their own accessibility by using a mobile phone (the fixed line phone was still used, but mostly for incoming calls from customers). The fast access to contacts through the mobile phone book was one interesting element here that seemed to have increased the accessibility of network resources. It made the customer register portable and easy to update. Another was the use of SMS to access customers (in particular in the last case). The messaging channel appeared as a new and more efficient way to relate to customers within small auto retailers.

On the other hand, the SMEs had also increased *their own* accessibility to customers and potential partners by always being accessible. For LHL this was seen as an important benefit:

“Telecommunications important to us in many ways definitely, connecting with customers, connecting with all the importers, suppliers, and getting wider coverage” (manager of LHL)

The incoming customer calls to the mobiles were mainly limited to the use of mobile voice, and SMS messages from customers were rare. However, partners and business contacts sometimes sent SMS to get detailed information or to follow up mobile dialogues.

In our study it is hard to separate the *mobilization* of resources from *investment* or *return*, since that would require more detailed information about the content of the communications. These processes are after all intertwined in everyday interactions at work. What our cases suggest, however, is that many calls and messages were directed to access resources from the closer family/friend circles, rather than more distant acquaintances or business partners. The mobile communication seemed to facilitate mobilization of resources in the networks of strong ties, rather than the weaker connections. Frequent calls to friends and family can be an indicator that mobile and SMS were used as a channel

to give and receive social support. For many of the foreign workers the mobile was clearly important as a way to keep in contact with close family members in other countries, such as Cambodia and Indonesia.

The importance of trust for these small retailers was hard to overlook. The building up of trust relations, and the mobilization of them, seemed to be embedded in a long chain of regular meetings and interactions face-to-face. The role of the mobile in this setting seemed to be for regular in-between calls to partners and suppliers, to sort out potential problems and misunderstandings to ensure that trust would not be jeopardized. Thus it seemed that the mobile was important not only to mobilize but to *sustain* trusting ties.

7. Conclusions

Former research has to a certain degree been able to support the argument that mobile phones alongside other types of ICT can increase the efficiency of small enterprises. On a general level managers of small enterprises tend to report that they *believe* that the mobile makes their businesses more profitable (Duncombe and Heeks 2002; Samuel, Sah and Hadingham 2005). This was a point of view that was shared among the managers in our cases; most managers believed that mobiles were positive for their business and made them more efficient. This “positive impact” was further explored in this paper, by investigating how mobiles are used to support social relations by employees and managers in three small retail enterprises. We found that the mobile was used mainly to develop and strengthen existing strong ties to friends and family as well as local vendors and suppliers. In particular, it was used to coordinate and make formal agreements in-between the regular physical meetings. The hope expressed by UNDP earlier in this paper, that ICT could “connect vast networks of SME’s across geographical distances”, might still be out of range when it comes to mobile use among small retailers in Malaysia. Yet, the emergent use of SMS to support and cultivate customer relations indicates how mobile applications in the future may go beyond these local networks to handle a wider set of relations through messaging systems.

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