Evaluating the impact of mobile phones on the well-being of blind micro-entrepreneurs in Indonesia

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A phone call from a customer feels like a fortune falling from heaven (Faisal).

Abstract

Much is expected of mobile phones – that they can be used as tools for promoting economic growth, poverty alleviation, community development, political freedom, transparent governance, and more. It is believed that they can enhance the welfare of the poor by increasing market information, employment opportunities and enhancing local trade networks. In Indonesia, mobile phones have become an essential part of people’s daily lives. Almost everywhere one sees more and more Indonesians engaging with their mobile phones -- making calls, sending text messages, or simply listening to music. Mobile phones are no longer considered as a luxury item now that they are available in their cheapest form for only IDR 100,000 (AUD 10). With an average growth of 60 percent per year since 2005, mobile phone penetration in Indonesia stood at 80 percent in 2010 with more than 180 million subscribers altogether.

In the Indonesian context, the use of this personal communication technology has in fact had effects on the economic as well as the social fabric. However, these impacts have not been thoroughly examined, particularly in relation to micro-enterprises, empowerment, productivity and/or well-being. This paper argues for the need to study the impact of mobile phones holistically, by considering the contextual, cultural and social factors of the society in which the phones are used, and not to treat them in isolation, nor as a stand-alone artefact. The paper evaluates the impact from the perspective of human development where ‘development’ is seen as the expansion of people’s choices and technology is seen as supporting these choices. It will present preliminary results of a study done in Indonesia of blind micro-entrepreneurs and it will discuss how the use of mobile phones has contributed specifically to their well-being.

1. Introduction

Many studies have been undertaken on mobile technology from the point of view of
adoption, impact of use, and its interrelation with the users, particularly in developing countries (Donner, 2008). These studies show that mobile phones have many visible effects on socio-economic development and poverty reduction. However, development has come to be conceived of and measured not only in economic terms, but also in terms of social well-being and political structures (Sein, 2004). This perspective comes from a class of theories labelled as “human development,” or “people-centred development”. Human development views national development as “the enlargement of people’s choices” and has resonance with Amartya Sen’s work on building capacities and entitlements. Sen (1999) introduced a conceptual framework for evaluating social states by focussing on human well-being – it is called the capability approach (CA). This approach has been widely incorporated into development policies, most famously in the UNDP Report on Human Development. This annual report takes increasing account of alternative dimensions of development such as social welfare, social equity, democracy, empowerment and sustainable development.

The human development perspective has given rise to a new strand of research studies where the use of ICT is analyzed by taking into account the many dimensions of human well-being, using the Capability Approach as a framework (e.g., Alampay 2006, Gigler 2007; Zheng, 2007; Kleine, 2009; Smith et al, 2010; Hamel, 2010; Toboso, 2011). These studies suggest that ICTs have the potential to contribute to the many dimension of human development. This paper will analyze empirical field data to show how mobile phones have impacted the lives of blind micro-entrepreneurs in Indonesia. It is based on a larger study on the impact of mobile phones on the well-being of micro-entrepreneurs in Indonesia. The next section will outline the key concept of the Capability Approach and how ICTs have been integrated into this framework as well as the existing research in this area. Then follows by an illustration of how mobile phones potentially enable capability expansion. After presenting the research context and preliminary findings of the empirical study, the paper will conclude with discussion as to how the Capability Approach can be used as a framework to evaluate the contribution of mobile phones to the well-being of micro-entrepreneurs generally.

2. The Capability Approach and ICTs

The Capability Approach is a framework that can be used for the evaluation and assessment of individual well-being and social arrangements or the design of policies and proposals about social change in society. Developed by Amartya Sen (1985), and expanded later by other authors (Gasper, 1997; Nussbaum, 2000; Robeyns, 2001; Alkire, 2002), it critiques a welfare-based approach to evaluation. Sen (1999) argued that in social evaluation and policy making, considering the “quality of life”, means including consideration of the freedom of people to live the life which they want, and which they find valuable. Well-being and development should be analysed from the point of view of people’s capabilities to function, and the opportunities and freedoms which they have to be and to do what they want to be and do.

The core ideas of the Capability Approach are functionings and capabilities. Functionings are described enigmatically as the “beings and doings” of a person, whereas capability refers to a person’s or group’s “freedom to achieve” valuable functionings. Capability represents the potential sum of the actions that are open to a
person from various combinations of functionings. Capability is a set of vectors of functionings (actions), demonstrating the person’s freedom to lead one type of life or another (Sen, 1999). In other words, the term functionings can refer to realized (actual) achievements and fulfilled expectations, whereas capabilities can refer to the effective possibilities of realizing achievements and fulfilling expectations. The questions that often arise are which capabilities are the most important, and why? Sen has always refused to endorse any specific list of capabilities. He argues that to try to make one final list of capabilities should not be attempted, because these lists are used for different purposes, and each purpose might need its own list. However, Nussbaum (2003) proposes a concrete list of basic capabilities, which is composed of the following ten categories: 1. Life; 2. Bodily health; 3. Bodily integrity; 4. Senses, imagination and thought; 5. Emotions; 6. Practical reason; 7. Affiliation; 8. Other species; 9. Play; 10. Control over one’s environment.

Other important aspects of Sen’s Capability Approach are well-being and agency. Sen defines agency as the freedom to set and pursue one’s own goals and interests. The pursuit of one’s own well-being may be one of those goals and interests. Other ends may include furthering the well-being of others, respecting social and moral norms, or acting upon personal commitments and the pursuit of a variety of values.

Having illustrated the main concepts in the Capability Approach, how can ICTs be integrated within this framework? Although capability theory appears not to have been explicitly applied to technological domains, a number of studies have referred to the relationship between ICT and the CA (e.g., Alampay, 2006; Giggler, 2011; Zheng, 2007; Kleine 2009). Alampay (2006) investigate how variables such as ICT ownership, age, gender, income and education affecting people’s capability to use ICTs and he also identified the barriers for access to ICTs. Giggler’s (2011) study concludes that ICTs can play an important role in enhancing the human capabilities of the poor (literacy-ICT skills) and that the extent to which the uses of ICTs expands peoples ‘informational capabilities’ is critical for positive impact of ICTs on economic and social development. Johnstone argues for the need to enrich capability theory with knowledge capability; he asserts that ICTs at best become instruments of knowledge. Zheng stressed that the importance of CA for its ability to direct the paradigm about ICTs to take into account the promotion of human rights and the personal and social variables that affect people’s capacity to achieve wellbeing. Finally, Kleine operationalized the CA with what she called a “choice framework”. The framework asserts that a combination of individual agency and structural resources can be converted into capabilities. Individual agencies can be categorised into 10 groups, including material resources, financial resources, geographical resources, health resources, human resources, educational resources, psychological resources, information, cultural resources, and social capital or social resources. Structural resources can aid or constraint individual agency. This includes rules, norms, culture, policies and dimensions of access (availability, affordability and skills needed for using ICTs).

Although the above studies utilise CA with different methodologies and for various objectives, they do help to identify categories that can be used for evaluation -- the personal and social variables that must be taken into account and the respective outcomes that might be achieved. Our focus in this paper, however, is on the
expansion of capabilities for human development through the use of ICTs. Several studies have been noted on this subject, e.g., Hamel, 2010; Smith et al, 2010; Toboso 2011. Hamel (2010) focuses on the health, education, and income dimensions of human development with some notes on participation and empowerment. He asserts that ICTs can enhance capabilities for human development when applied with foresight, clear objectives, a firm understanding of the obstacles that exist in each context, and where there are proper policies that establish an institutional framework that promote the use and benefits of ICTs for the poor. Toboso (2011) analysed CA and its relation to ICT in the context of people with disability. He argues that the importance of human diversity in the capabilities and functionings approach calls for incorporating disability into the analysis of wellbeing and quality of life. He introduces ‘diversity on functionings’, describing the reality of persons who have the potential to access the same functionings as other people but in a different way — often through the use of technical components and technological resources. Smith et al (2010) applied CA to existing research by categorising functionings created by the connectedness and information sharing characteristics of mobile phones into three networking dimensions, namely, social networks, economic networks and governance networks. They too argued that mobiles are making substantial contributions to capabilities and freedoms in economic, social, and governance spheres.

Our research extends all of the above studies by providing empirical evidence of capability expansion through the use of mobile phones. It covers a wider range of dimensions, based on the perceived value of what is considered as important for well-being. This study also contributes findings about the diverse ways of achieving possible functionings which might expand the limit of a capability set for persons with a disability.

3. Capability expansion potentially enabled by mobile phones

The Capability Approach assesses human development by the expansion of their capabilities. The more freedom people have in doing what they value most in their lives, the more developed they can be. To give people more freedom, any development initiatives need to provide them with more free choices and opportunities. In the Capability Approach, the relationship between commodities (goods and services), functionings, and capabilities is of particular importance. Sen argues that goods and services are important only in the sense that their characteristics enable people to do and to be, namely, in the light of the capabilities that a person can generate from these goods and services. The goods and services are a potential resource. A conceptualization of ICTs within the Capability Approach framework is proposed by Zheng (2007) and Heeks & Molla (2009). Both authors place ICTs as a commodity with a value only in relation to how it helps individuals to do or to be. More than has been hypothesised, ICTs could claim a legitimate and central place in the overall capability account. When people are able to make use of ICT to maintain meaningful associations with one another or to earn a living where they could not before, we can legitimately claim an instrumental role for technology in expanding capability and achieving valued forms of functioning (Heeks & Molla, 2009).

Powerfully, mobile phones contribute to the expansion of capabilities by creating new
functionings or enhancing the existing ones, e.g., creating the functioning of mobile communication and enhancing the functioning of long-distance communication, but they can also extend thinking capabilities and provide information. Therefore, mobile phones will affect the personal, social and environmental conditions that enable or constrain the generation of capabilities. They also can affect personal preferences or needs which will influence people’s choice of realised functionings. The following examples will illustrate these propositions.

Let us think of the life of Amir, a “penjual bakso” (meatball soup hawker) who is a very common type of micro-entrepreneur in Indonesia. A meatball hawker goes around the streets and alleys in his neighbourhood selling meatballs by knocking on a soup bowl with a spoon which creates a very distinct and well-known sound. Now, let us imagine Amir being given a mobile phone. First, provided that he knows how to use the mobile phone, he can call his family while he is working; thus Amir’s mobile phone generates a new functioning, namely mobile communication. Then, let us say, Amir could receive orders from his customers through his mobile phone. In this case, Amir’s mobile phone is acting as a conversion factor that is helping to convert another commodity (the meatball business) into another functioning, namely a delivery service. It also makes his work more efficient, even profitable.

Then, Amir receives an SMS from his friends saying that a certain alley has more potential customers. Amir then could plan to stay longer in that alley to sell more meatballs. In this case, Amir’s mobile phone is acting as a conversion factor enabler. His knowledge has been enhanced by the information he has just received. Finally, mobile phones can act as a choice developer. Amir usually sells meatballs on the street because he has to travel to his customers. Having a mobile phone enables him to receive orders from his customers at home. A new option may be developed, i.e., selling meatballs from his home, and Amir will probably choose this option since it requires less walking, is safer and he can remain closer to his family. It is clear that in Amir’s case his capabilities and functionings are both improved a lot.

4. Research context

The Indonesian Micro-enterprises

Small and medium enterprises (SMEs) in Indonesia have historically been the main player in domestic economic activities, especially as a large provider of employment opportunities, and hence a generator of primary or secondary source of income for many households. Micro-enterprises are the smallest, but most numerous businesses within the larger group of SMEs. Recent statistics show that micro-enterprises accounts for approximately 95% of all enterprises in Indonesia, absorbing 87.2 million labourers, of the 94.3 million which is the total labour force in Indonesia (BPS, 2007).
In the reported research project, empirical data was taken from two cities, viz., Makassar and Bandung, which represent the eastern part and the western part of the country (see figure 1). Using an in depth semi-structured interview guide, a total of 39 micro-entrepreneurs were interviewed. The interview guide consisted of questions about their perception on well-being, that is, what are the most important values or element for their well-being and how mobile phones may or may not contribute to these values.

Participants spanned from a broad range of businesses within the sector for trade, manufacturing and services industries. In the study there are 51% female participants and 49% male participants. Their income varied from IDR 500,000 (AUD 60) to IDR 6 million (AUD 600) per month, with majority of interviewees earning an average of IDR 2.5 million (AUD 300) per month. Eleven of these micro-entrepreneurs were self-employed with no support staff. Most enterprises used simple technology, had limited access to credit, had limited managerial skills and operated in the informal sector. For the research, micro-enterprises were grouped according to their location (Bandung or Makassar), products or services categories (e.g., shoe-maker, furniture-maker, blind masseur), or those belonging to the same service organization. This is based on the assumption (later shown to be true) that communication activities and interaction amongst similar businesses in such groupings are more likely to occur.

For this paper, data and discussion are drawn from 10 blind micro-entrepreneurs, four in Makassar and six in Bandung.

**Blind masseurs in Indonesia**

There are approximately three million blind people (or those visually impaired) in Indonesia. The majority of these blind people come from a low socio-economic background, with very limited access to education, few jobs in either the formal or informal sectors, narrow political rights, and little information. They do not have many choices in earning a living and consequently have very limited income. For many, becoming a masseur is one of the limited choices of jobs available to them. A small number are working as teachers in blind schools (Sekolah Luar Biasa Tunanetra or
SLBT), whereas some others are peddlers, selling slippers, or biscuits or crackers door-to-door. A recent initiative to employ blind people for tele-sales has proven that they can participate in more competitive jobs. Some of the lowest incomes of all participants in this study are in this category (mostly under IDR 1 million or around AUD 100 per month) which makes them a very appropriate subject for a study of ICTs and the CA.

The Indonesian government provides some support for people with disabilities through the Departement Sosial (Social Ministry) which provides welfare services and education. The services cover expenses such as fees at a boarding school and life skills training. However, this is not followed up by the provision of adequate employment. In addition, the establishment of non-blind massage parlours have further reduced their opportunities. Being a masseur is seen as the most suitable work as it does not require large capital, and the skills can be learned without much difficulty. In fact, many of approximately 200 blind schools in Indonesia provide massage or shiatsu skill training for their students. Having a family and the desire to be financially independent is a motivation for many blind people to start their own small business.

5. Blind masseurs and their well-being

In Indonesia, massage has been popular for centuries and is an intrinsic part of Indonesian culture. Massage is believed to help the body eliminate disease, regain its balance, and ensure continued good health. The traditional Indonesian healing technique has been greatly influenced by both Ayurvedic and Chinese medicines. These approaches came about in Indonesia by means of Hindu priests who introduced Ayurvedic medicine; it uses scented oils for massage as well as medicines made from plants. The knowledge of Chinese medicine was brought by traveling Buddhist monks. Massage techniques were also influenced by traders from Arabia, China and India.

Most of the larger islands have their own special type of massage and the technique is similar from Javanese, Sundanese, Balinese, to Sulawesi. But the most advanced knowledge of healing techniques is found in Java and Bali where it evolved directly from the traditions of the Majapahit kingdom (13th century) when massage was one of the many beauty and relaxation treatments developed by the queens and princesses in the kratons (royal courts).

Indonesians developed their own style of massage by observing and selecting different techniques from India and China which they then handed down from generation to generation. The massage techniques include movement and pressure of meridian points of the body, an area of the spine, shoulder blades, waist, legs, and arms. Nowadays, many Indonesians go for a massage in many massage parlours, beauty salons and spas, or they call a masseur for a house visit to enjoy massage in the privacy and comfort of their own homes. Some would even prefer to go for a massage than to a doctor when they have mild health problem such as headache, muscle ache or cold. Many blind people have taken the occupation of masseur because their heightened sense of touch makes them better therapists.

The following discussion is drawn from interviews with 10 blind micro-entrepreneurs - four in Makassar and six in Bandung. The research sample was purposive, not
random, and snowballing selection enabled the addition of several participants. Nine of the participants are married with children and one is single. Male masseurs offer their service for men only and women masseurs to women only, so if a husband and wife are both masseurs, they can accept male as well as female clients. In the religion of Islam it is forbidden to touch any member of the opposite sex who is not family or related by marriage. Participants’ levels of education were low with only two with a university education, while others had barely finished secondary school. Many did only three years of secondary education. Gender-wise, there are 8 males and 2 females in this sample. Nationally, there were no data available on the male and female masseur proportion, but based on our observation, there are more male than females. This is perhaps because female masseurs tend to take this occupation only if their husband is also a masseur and would like to take female clients,

My wife has started to work as a masseur too. She only takes female clients and she has her own client, so if there is a female client I will refer them to my wife (Syamsuddin).

All participants have migrated from other districts in South Sulawesi and West Java to big cities like Makassar and Bandung respectively, to start school at blind schools. After finishing, they continue staying in the cities because there are more potential customers and a higher rate of service fees in the cities, than in their villages. Some of the participants had to leave their wife and children in the village, and only manage to visit them three or four times a year:

I live here [in Bandung] while my family is in Garut. I can only go home to visit them every three or four months that is when I have saved enough for the bus ticket (Endut).

All but two of them rent their premises, and all use their residence as a business place. The massage clinics are located in the alleys behind main streets where the rents are a lot cheaper than those on the main street. Some are located even as far as one kilometre distant from the main street. Such a location is not an ideal site for a business, but this can be compensated for by placing advertisement boards along the main streets. All of the units are quite small, shared between daily household activities and the working clinic functions, and in some cases the business is also shared with employees who are also living in the same space:

I live here with my wife and my three children. My employees also live here as they can’t afford to rent a place on their own (Cucu).

The blind masseurs offer massaging services on-site and on call elsewhere. They go for house visits using cheap public transport, a taxi or ojek (motorcycle taxi). All blind masseurs have their tukang ojek langganan (a reliable driver whom they know and whose service they have used), whom they can call at any time when they need to go anywhere. The fares are about IDR 2000 or AUD 0.20 per kilometre. Clients who prefer to have the massage in the comfort of their home can call and arrange for the masseur to come, however there is an additional fee to cover the cost of transportation. The masseurs also have other support system in place such as neighbours, friends, or family and relatives to help with all sorts of needs.

Some participants became blind by illness when they were very little, others by injury. Many said that they had a series of high fevers or small pox before losing their vision. Being brought up in villages where health services are often inadequate, illnesses

were not treated appropriately or they would go untreated altogether. Furthermore, the parents' lack of knowledge about health makes them oblivious to their children's serious condition. Some still believe in sorcery and that they should call in a shaman instead of a doctor.

We turn now, in the interest of introducing the CA approach, to ask what these blind micro-entrepreneurs consider as important for their well-being?

First of all, their families are very important and the need to be close to them. The importance of family was always uppermost when participants were asked about their well-being. The first and immediate response was almost always about family well-being. It seems that interviewees do not regard their well-being as their own, but rather their family well-being is integral. This is depicted in the responses which almost always refer to "our" instead of the individual self:

*Alhamdulillah* [thanks to God], my earnings can fulfil our daily needs (Hasnawati).

The well-being of the family includes family livelihood, schooling for children, maintaining good relationships with spouses, being dutiful to parents, and helping other relatives. Spontaneous concern for family livelihood is the most important aspiration. Many interviewees believed that they are materially well-off if they just earn enough for the family:

I have so many things that I want to do, but I don’t want to think about it. I live my life as it is, as long as our daily needs are fulfilled (Yatiman).

It is only logical that participants expressed the need to be constantly close to the family. Some micro-entrepreneurs will bring their family to where-ever they decide to start a business. Others must leave their family in the village for various reasons. In this study, seven participants live with their family while the other three had to leave their family in the village. When asked, these three participants leave their family behind because of their negative view of the urban lifestyle, and because it might affect their children's upbringing. For those that have to leave their family to go somewhere else to find business opportunities, the goal is to someday go back to their village where they can reconvene with their family.

The beneficiaries of the family earnings are largely the children. For many participants, it is very important for their children to be successful. However, participants’ perspectives on the definition of 'successful' are different. Some say that being successful means that their children should have better life than the parents. Others perceived successful as to be able to work and be independent. But, all participants agree that education is the way forward:

What matters is that we live our lives accordingly, daily needs fulfilled and the children can go to school, then work then to be independent (Yatiman).

Therefore many believe that sending children to school is the utmost priority. They would take all necessary means to ensure their children receive an education. In some extreme cases, participants are prepared to set aside their dreams and aspirations so as not to interfere with this priority goal:
I hope that my children can go to school and I will do anything I can. I am old, I don't have dreams for myself any more, I am simply grateful to be able to live like this (Syamsuddin).

Being independent is perceived as another crucial element of well-being. It is difficult for blind people to perform some activities without help, but in fact they would prefer to be able to do everything themselves.

My neighbour or my friend will help if I need to, for example if I'm not feeling well and need to go to the doctor, but I don't want to keep troubling them too much (Endut).

Dependency is seen as a form of inferiority, as conveyed by a blind masseur in Makassar:

Since the accident in 1978 that made me blind, I've been living in the village with my uncle, as both of my parents have died. But I feel inferior around normal people as they would probably think that I'll be relying on them. That's why when I heard about this blind boarding school in Makassar, where they can help and teach skills, that will allow someone like me to be independent, I signed up immediately (Syamsuddin).

Other important measures of well-being perceived by participants include health, helping others, accepting fate, and a sense of dignity. Participants have stated that they build the business to help other people such their fellow blind colleagues, and people from their village:

I want to start another business in my village, like a poultry farm. And if that business was growing, I’d like to help people in my village by employing them in my business (Aris).

They also believed that accepting fate and gratitude for what they have will give a sense of contentment in life. This is part of the religious element in their upbringing because for a Moslem everything in life is governed by God and therefore they should be grateful for what they have. A sense of dignity is of significance to these people because they are constantly trying to avoid a feeling of inferiority that often arises. It is also worth noting here that some measures are more important than others. For example, participants seem to be putting a sense of dignity above material wealth. This sentiment was conveyed by one participant who also played piano in a local band:

My earnings from massaging varies and most of the time it's not enough. That's why extra money from playing in the band is very helpful. It is very difficult to rely on this business alone, especially when I don’t get many customers. When it’s quiet, a phone call from a customer feels like a fortune falling from heaven. But I don’t want to call my customers. I don't want to sound as though I really need a job (Faisal).

6. Discussion of how mobile phones contribute to the masseurs’ capabilities

Help to maintain communication with family, relatives and friends

Participants agree that communication is crucial to maintain relationships and it has been greatly facilitated with mobile phones:

For me, the mobile phone is the most important tool because that's how I can communicate
with my family in the village (Aris).

The mobile phone is used as a primary functioning enabler to communicate to family, friends and relatives. It is used to maintain contact with friends, talk to and monitor children when away, get news from relatives or something as simple as asking about the whereabouts of a family member.

Often when separated, there are issues that might compromise relationships with the family. These issues must be addressed and the key is communication. If not handled appropriately, separation might result in a weakened affinity towards each other. One masseur in Bandung expressed a very human concern:

My wife is also blind. She used to work with me here in Bandung but when we had children, I suggested that she stay home [in the village]. I know that our children might have some feeling of inferiority to have blind parents and if they do not have strong affinity to us, I am worried that they might feel embarrassed and that they will not acknowledge us as their parents. That is why I asked my wife to stay close with them (Deden).

For those participants who are separated from their family, communication is even more imperative and mobile phones seems to be the most affordable and efficient alternative.

My family is in Garut, my wife stays there to look after the children, so other than business I use my phone mainly to call my family. I even give mobile phones to my children so that I could monitor them, particularly about their study, from here (Deden).

For some participants mobile phones are often regarded as the only option. Physical encounters are always preferable but they require cost and extra time, which might not always be affordable for many, so communication over the phone is seen as a substitute for face-to-face encounters. Dewi, a masseur who runs her business from her rental studio, expressed the dilemma well:

My daughter [16 years old] is in Sukabumi [200 kilometres west of Bandung] with my parents. I call her quite often via mobile phone ... She wants a Blackberry phone, but I don’t have the money yet. I miss her a lot, but I can’t go there every time, only when I have spared enough money for the bus, but at least I can still call her (Dewi).

Communication to children is so important that many other participants have also equipped their children with mobile phones.

Supporting sales and customers relations

Mobile phones were instrumental for sales and maintaining customers. Many have said that they get more customers since using mobile phones. Being contactable anytime and anywhere has made it possible for them to seamlessly operate aspects of business such as arranging effective schedules and managing cancellations. They can make themselves available on call.

With a mobile, I can provide service to my customers, so that they can contact me easily. For example, I am massaging at client A’s place, and client B wants a massage too. He can call me then when I don’t have any other appointment after client A, I could go straight to client B (Deden).
Mobile phones helped to provide and maintain better services for customers.

Now with mobile phone, my customers can contact me anytime. Those who live far from here can call first to see if I’m available and so that they don’t have to wait for a long time. My customers used to be disappointed when they came to the clinic and I wasn’t there (Syamsuddin).

Mobile phones have also helped with advertising. Before mobiles, many blind masseurs did not have land-lines, so their only means of advertising was by putting a board on the street somewhere nearby, stating their business name and address. But this was only seen by those who happened to pass by. This type of business also operates on word of mouth and with a mobile phones, the word can spread much faster.

Besides distributing business card to people that I meet, my business is also promoted by my existing clients who tell other people about me (Saria).

**Support for physical mobility and independence**

Mobile phones have provided support for physical mobility, and independence to the research participants. They arrange their own transportation, get help for emergencies, when needed, and order daily needs, such as food delivery and water containers. Being able to perform these activities without assistance is very important to our participants. It not only provides a functioning, but it does so with privacy and respect. Aris, a masseur in Bandung, explains:

I would call rather than sending SMS as it is difficult for me to read the message. I could if I had one of those mobile phones with installed text reader software, otherwise I have to ask someone else to read the SMS. But I don’t want to trouble people too much, or you don’t want other people to read any confidential messages [Aris].

As mentioned, blind masseur business often involves travelling to a client’s destination. To be able to move easily from one place to another, these micro-entrepreneurs require a flexible and reliable mode of transportation. They also need drivers as they are not capable of driving vehicle themselves. Many of the blind masseurs have family or relatives that they can rely on to take them to places. However, these supports may not be available all the time. Furthermore, as it is an unpaid service, many of them feel reluctant to ask for help. They do not tend to ask family or relatives support for help if it is a business matter. Mobile phones have been very useful in supporting the mobility of blind micro-entrepreneurs:

Another very important use of mobile phone for me is so that I can call my ojek driver (motorcycle taxi) to come and pick me up when I’m going for a house visit or when I’ve finished with a client. Also, we can call the client to ask when my ojek driver is not sure about the address (Syamsuddin).

Being in urban areas where traffic is always a problem, the most appropriate transportation is motorcycle. Each person has a most frequently-used driver and several back-up drivers. It is safe and secure for these masseurs, because most ojek drivers (all of whom own a mobile) operate in the vicinity of their house, so they are
basically neighbours. It is a support system for business activities, without relying too much on family and/or relatives.

**Enhancing a business network and strategy**

Networking among businesses is also beneficial in setting a collective price. Setting a collective fee is important for many of these enterprises to avoid unhealthy competition and to maintain a reasonable price for a product or service. This is especially true for those types of small businesses which offer a very specialized house service like massaging. Participants in the study agree that they all have their own customers and it is unlikely that customers might go to other masseurs because compatible relationships are well established between a customer and masseur:

> Alhamdulillah, I got a lot of calls from customers for my service. They are mostly my customers when I was working in another massage business. If customers liked my style then they’ll be looking for me (Faisal).

The collective fee system is particularly useful for new customers. New customers commonly try several services before deciding which masseur they like best. With a collective fee, businesses do not have to compete in terms of price, but let the customer decide on personal style. The consensus networks among the businesses are very informal, so many continuous parallel discussions within and between groups take place before an agreement is struck. It is enabled by mobile phone. This was illustrated well by one participant:

> We also talk about the service fee. It is good to set a standard fee, because otherwise some [masseurs] would be jealous. If we want to increase the fee, then we’ll discuss it with others first. If we can’t reach an agreement then no-one can increase their fee (Faisal).

Businesses with specialized services require specific individual skills that can be developed from training and experience. Basic skills can be acquired through training but additional skills such as ‘special tricks’ can only be obtained through personal experience by oneself or from others. Consultation and advice from a more experienced masseur can be very useful. This is what one masseur business owner said about sharing secret business and how mobile phones facilitated this:

> Often I talk to fellow masseur, about a business problem or sharing information about how to make customers stay. Yeah... you do need special tricks to make the customers come back again and again. If you don’t have a special trick, a customer may come once but wouldn’t come back. So communication with others is very helpful for us and mobile phones have facilitated our conversations (Aris).

There is a national organization for the blind called Pertuni (Indonesian Blind Association) but many participants in this study (90%) are not members of that organization. Without a formal organization, it can be difficult to organise a national agreement that involved many parties setting a formal collective price. Most participants prefer to discuss business matters among themselves locally and this has been achieved with mobile phones. It has become the preferred forum where they discuss specific issues about the business.

> I think that a formal organization is not very helpful. It’s better to discuss things with other...
masseurs. It makes our job easier, whereas an organization could not assist us with our job. For example, a friend comes here and needs work, I’ll ask them to stay at my place while looking for a job, then I’d call [using mobile phone] other blind masseur businesses to ask if they need a new masseur (Yatiman).

Other supporting role of mobile phone

Other uses of mobile phones including helping people, as in the above quote and coping with loneliness which was sadly expressed by a participant:

I live by myself, so I am very happy to get a call from anyone. I know someone, he is a Javanese. He calls me every night. I like it when he calls, he is a nice guy and very attentive to me. But I feel embarrassed and at the same time feel sorry for him, because he doesn’t know that I’m blind. Sometimes I dream that I could marry someone who’s not blind but then I think, there is no way that he would want me (Dewi).

7. Conclusions

We have demonstrated that the primary aspects of well-being for blind micro-entrepreneurs include family livelihood, education of children, personal and social relationships, being independent, helping others, personal or mental, and a sense of self-respect and dignity. We have also shown that mobile phones have the potential to (and do) contribute to these well-being elements in many ways.

The characteristics of mobile phones which provide connectedness and information-sharing have created a range of functionings that may have been difficult to achieve otherwise in the introverted world of the blind Indonesian masseur. The addition of these new functionings has certainly enriched their capability set. Being able to conduct business activities more efficiently using mobile phones, has resulted in more customers, thereby increasing income, which in turn improves the family livelihood. Similarly, the fact that these masseurs are able to arrange their own transportation or listen to incoming messages using mobile phones, has given them more independence. The facts that they can call family or monitor children using mobile phones, has enhanced their personal relations. These are illustrated further in the table below:
Table 1. Mapping functionings to valued capabilities

<table>
<thead>
<tr>
<th>Values/ functionings</th>
<th>Family livelihood</th>
<th>Education for children</th>
<th>Personal, social Relations hip</th>
<th>Being independent</th>
<th>Helping others</th>
<th>Health</th>
<th>Self respect/ dignity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being able to maintain communication with family/ friends</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supporting sales and customer relations</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhancing a business network and strategy</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supporting physical mobility</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We can see from the table that each functionings enabled by mobile phones corresponds to one or more valued capability. Some functionings do not relate directly to a specific capability but by means of proxy to another. For example, all functionings that enhance family livelihood will also contribute to children’s education since it has been shown by most of the participants that income is directed towards children’s education. Similarly, some capabilities such as health and a sense of dignity, although not enhanced directly by any functionings, might be supported by other capabilities. Surely, one would feel more dignity by being able to be independent and mental health is improved by being able to communicate with family and friends, to share and to cope with loneliness. Finally, the functionings presented here do not represent the complete set of functionings of the individuals, but they are sufficient to show that the use of mobile phones have expanded blind micro-entreprenurs capability sets and enabled them to live the chosen life which is valuable to them.

References


