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Impact of ICT on Human Resources and Socio-Cultural Perspectives of Microfinance Organizations

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Abstract:

Microfinance is a semi-formal financing program designed to help economically and socially marginalized community to come out of the vicious cycle of poverty. Because of the nature of working approach, organizations intervene microfinance program are usually human resource intensive. A momentum of using Information and Communication Technology (ICT) in the information systems of microfinance organizations has been going on even in the least developed countries. This paper looks into the impact of using ICT more particularly on different aspects of human resources of microfinance organizations. Using a comparative case study, both the positive and negative impacts of ICT to human resources and the socio-cultural perspectives of microfinance organizations has been investigated. The study finds a number of ICT mediated positive materialistic changes among the human resources but indicates a detrimental effect to the development mindset of human resources. It suggests policy makers and top managers of microfinance organizations for taking care of the matter so that microfinance remains as a development program to attain its set objectives.

Keywords: Microfinance, human resources, information and communication technology

1. Introduction

Studies on organizational performance suggest that the strategic use of human resources of an organization is one of the most important determinates of organizational success (Som, 2008). In general, human resources in service organizations are considered as one of the critical success factors than that of modern manufacturing organizations (Premkumer, 1992). Microfinance is a 'semi-formal' financial service in between the services of formal financial organizations and local moneylenders, which provides financial services to the economically and socially marginalized unbanked community (World Bank, 1997). It provides collateral-free micro-financial services to the people live in poverty. The services are provided at their doorsteps with intense monitoring and supervisory mechanisms involving human resources who are directly bound to each target people at their community level. In that way, microfinance providing organizations are human resources intensive service organizations, and the organizational success largely depends on the performance of the employees working there. However, sustainable performance is a function of a set of factors internal to the performer, and the material and socio-cultural contexts within which the performance occurs (Seyal et al., 2000). As an unexplored area, this paper identifies the impacts of using ICT on human resources and socio-cultural perspectives of microfinance organizations in Bangladesh that may help practitioners of microfinance management, and may contribute to the Human Resource Management (HRM) and Organizational Behavior (OB) knowledge domains.

2. An Overview of Microfinance and Structure of Microfinance Organizations

Microfinance is a development program that provides small amounts of collateral-free credit to the people in poverty. The overall belief behind the concept of microfinance is that, using these credits, the borrowers are able to create self-employments and be able to come out of vicious cycle of poverty (Yunus and Jolis, 1998). Smith (1776) asserted, 'Money, says the proverb, makes money. When you have got a little, it is often easy to get more. The great difficult thing is to get that little' (p. 111). Microfinance intervention is designed to provide this 'little capital' as a 'micro-credit' to the people who are economically and socially marginalized in the community. Besides providing credits, microfinance services include micro savings, micro insurance and a process of social development so that the borrowing households can come out of poverty in a sustainable way. Because of the claimed contributions of this development intervention, the microfinance sector has been recognized with world famous awards including the Nobel Peace Prize for 2006, and the United Nations proclaimed 2005 as the 'year of microcredit'. However, antithesis about the contributions of microfinance is also there (Bateman, 2010; Armendáriz and Morduch, 2010; Odell, 2010; Karim, 2008).

Although, the evidences of providing collateral-free credits to the people in poverty across different parts of the world in previous centuries are there (Seibel, 2003), but the movement of microfinance intervention got momentum

during the mid-1980s, and since then it has been spread across the developing world through establishing 100s of microfinance providing organizations, some of which contain more than 25,000 employees in each. Typically, the structure of human resources in microfinance organizations consists of frontline operational staff, supervisors, top executives, and support service staff. About 90% of total staff work at frontline layer who are directly bound to the borrowers' groups for all sorts of financial and social interventions. Frontline operational staff and their immediate supervisors are based in operational outposts called branch or unit offices. Big organizations usually have regional offices for monitoring and controlling the overall operations within their territorial boundaries. At head office, top executives involve with the operational policy and procedures, overall monitoring and controlling, and deal with the external bodies such as funding agencies and regulatory authorities. The staff members involved in support services such as accounting, IT, logistics etc. are usually belong to all offices throughout the organizational structure as and where needed. However, the microfinance intervention takes place only at borrowers' community level by the frontline operational staff members of microfinance organizations.

3. Literature Review

Human resources of an organization and the socio-cultural environment in which the human resources act and enact are critical success factors for attaining objectives of an organization (Som, 2008; Harrison, 2000). However, human resource development (HRD) and the development of a congenial and productive socio-cultural environment in an organization are still an elusive nature of concept. They are largely dependent on different contextual factors internal and external to the organizations where monolithic rules like theories may not be practical (Tovstiga, 1999; Lee, 2003). Usually, the way in which the influencing factors function to human resources and the surrounded socio-cultural environment is dynamic, rather than singular or static. In a system approach, the influences of one factor may influence others to function on the human resources and socio-cultural environment of an organization in a dynamic engagement.

As one of the influencing factors, studying the implications of using ICT on organizations in general has been a long standing tradition among the organizational and information systems researchers (Leavitt and Whisler, 1958; George and King, 1991; Pettigrew, et al. 2001; Orlikowski, 1992; 1996; Orlikowski and Yates, 2006; Orlikowski, et al. 1996; Avgerou, 2000; 2001; Scott and Van, 2004, to name a few) than the studies on the implications of the same upon the human resources of organizations in particular. Tradition of studying the impacts of ICT on human resources of organizations is comparatively new, and a dearth of concepts exists in this important area of Human Resources Development knowledge domain with a small number of studies, which is even much lower in the developing world (Seyal, et al., 2000).

Some of the studies looked into the impact of the use of ICT on the performance of human resources in the organizations (Mathur, 2009; Zwick, 2003; Saleem, et al., 2011; Dewan and Kraemer, 2000; Lal, 2001; Chowdhury, 2006; Mohammed, 2015). In a recent study, Mohammed (2015) investigated the impact of ICT on the efficiency of human resources where he analyzed how ICT engender positive changes on the ability of human resources to work faster at a lower cost. His analysis although concentrated mostly at the operational level of the organizations. Zwick (2003) looked into the impact of ICT investments on the productivity of a large number of German industries using panel data sets. Zwick (2003) divided industries having significant ICT capital and having almost no ICT capital in their firms and compared the productivities of these two categories of industries. The study found that investment on ICT significantly function on the productivity of the firms, although the study did not concentrate on the extent of the investments and their implications. Mathur (2009) investigated ICT industries of several developed and developing countries and found that the productivity growth in the ICT industries in developing countries is slightly lower that of developed countries. This study depicts a comparative view between developed and developing countries but the study looked into the ICT effect on the human resources of ICT industries with national level data rather than seeing the effect of ICT on human resources of non-ICT industries with firm level data.

Saleem, et al. (2001) attempted to measure the impact of using ICT on efficiency and effectiveness in terms of cost, time and quality of higher education establishments of different locations of Pakistan using IRA (ICT Role and Adaptation) model. The target population included faculty members, computer professionals, and administrative staff of the higher education establishments. The study found significant relationship of ICT use and the efficiency and effectiveness depending on the extent to which the ICT were adapted in the organizations. However, the study included only the ICT-literate participants and paid less attention to other attributes of the participants of the study. The study concluded with statistical inference using only correlation co-efficient, which may not be exploratory enough to see the impacts of other aspects related to the area of interest. Based on a number of empirical studies in developing countries, Dewna and Kraemer (2000), Lal (2001) and Chowdhury (2006) argue that increasing investment in ICT may not necessarily lead to higher performance of human resources in the organizations. They assert that performance of human resources is largely depended on different attributes internal to the human resources and the context within which the performance takes place.

The theory of complementarities (Gargallo-Castel and Galve-Gorriz (2007) indicates that ICT alone does not guarantee increase in organizational output including the performance of human resources. It should be complemented with other human attributes and contextual factors related to performance of human resources and socio-cultural environment of an organization. Thus, according to the theory of complementarities, an increase in performance of human resources and an organization as a whole are determined with a combination of attributes of human resources, contextual factors and ICT, not by the ICT alone. However, in the other way around, ICT may have impact on the other attributes of human resources and socio-cultural perspectives of an organization, and can engender changes in organization as a whole.

4. Methodology

An exploratory comparative case study was conducted on six organizations namely ASA, BRAC, DBS, SJK, TMSS and UDDIPON that provide microfinance services in Bangladesh. The organizations were selected for the study considering some basic characteristics so that they represent the microfinance organizations of the country. The criteria include 1) size of the organization, 2) type of organization, that is, whether the organization implements microfinance exclusively or implements microfinance and other development programs, 3) the location (urban or rural) of the head office, and 4) Type of Information Systems.

Name of Organization	Type of Organization	Size of Organization	Location of Head Office	Information Systems
ASA	Only microfinance	Large	Dhaka	ICT
BRAC	Multi-program	Very large	Dhaka	ICT
DBS	Only microfinance	Small	Meherpur (a district town in the West)	ICT
SJK	Only Microfinance	Small	Perojpur (a district town in the South)	Manual
TMSS	Multi-program	Medium	Bogura (a district town in the North)	Manual
UDDIPA	Multi-Program	Medium	Dhaka	Manual

Table 1: The Organizations Selected for the Study

From a non-positivist epistemological stance, the study conducted a number of semi-structured interviews and focus groups discussions (FGD) as shown in the table below. Semi-structured interviews were conducted with management staff members at head offices and field offices, and the focus groups were conducted with the frontline staff members of the organizations.

Organization	Semi-Structured Interview	Focus Group
ASA	12	4
BRAC	13	3
DBS	4	2
SJK	4	2
TMSS	8	3
UDDIPON	9	4
Total	50	18

Table 2: Method of Data Collection

The interview and the focus group data was recorded using research instruments designed for the study and voice recorder, and the field notebook was used to record data from observations and informal discussions. The data was processed and analyzed using NVivo. Using the data gathered from the organizations a descriptive account of changing implications is presented in the paper.

5. Observation and Discussion

The study observed following areas of human resources and socio-cultural perspectives of change in microfinance organizations.

5.1. Human Resources of Microfinance - A Paradigm Shift

It has been found from the interviews with senior staff members of different microfinance organizations that the microfinance organizations of the country had experienced a transformation in organizational approach and norms. When microfinance was introduced in Bangladesh the human resources of microfinance organizations mostly had a philanthropic mindset, as the followers of their philanthropic pioneering leaders. Many of them did not even perceive working in microfinance as a job; rather they used to work in microfinance as development activists with a volunteering mindset in an informal organizational setting, following the principle-based approach (Lovett, 1999, Sama and Shoaf, 2005). They used to work upholding the strong belief of economic and social development for the poor from the organic organizational structure in a contingency management environment (Burns and Stalker, 1966; Scott, 1981). Over time, microfinance became popular, with both growing demand from the borrowers side and a growing interest of national and international policy makers throughout the 1980s. In the early 1990s a rapid growth of microfinance began in Bangladesh as a result of the policy campaign and the enormous financial support from international development agencies. The existing microfinance organizations expanded rapidly, and a huge number of new organizations began covering almost all areas of the country (CDF, 1998). A transformation of microfinance organizations began to take effect from the informal principle-based, contingency management towards a more formal, rule-based approach. This was due to various factors such as the pressure of financial control, growing competition among microfinance organizations, the need for

sustainability and the motive of profit maximization. The ideology and the norms of human resources started changing from the sense of development activist towards the sense of service holder; from the flexible principle-based working practice towards a hard-and-fast rule-based working captivity; getting satisfaction from helping the poor towards getting satisfaction from the money from the job.

5.2. A Scenario of Typical Microfinance Work

Since the time of the transformation of the approach of the organizations and the norms of human resources, working in the microfinance organizations, especially at the lower operational layers, has not been seen as a prestigious job even in this developing country with an abundance of unemployment. Working in the microfinance sector has been considered as a very laborious and risky job within the society. Traditionally, in the organizations using manual information systems, the operational staffs start working at 7:00 am in the branch office for portfolio related official jobs and participating in the briefing of the Branch Manager. Then they need to go to the field individually and hold the first scheduled meeting with the borrowers typically at around 7:30 am, and they hold up to four meetings with borrowers groups in different places mainly for collecting credit and savings instalments, in most cases in an unpleasant environment. They need to come back to the branch office by 1:00 pm and perform calculations with all the operational staff, then deposit the collected money into the bank and draw the money needed for the disbursement of the day by 3:00 pm. By 4:00 pm they need to have their lunch, face the busy borrowers who come to the branch office for new loans and perform all the validation and formalities related to new disbursements. After 4:00 pm they again need to go to the field for collecting money for 'payment missing' of the day and the previous overdue loans. During this time they also perform the feasibility assessments of the new loan applications. All these activities are mostly unpleasant and risky. If the dues are not collected they need to stay there, even until midnight. In many organizations the operational staffs need to pay the unrecovered dues from their salary if it is found that the feasibility assessment of loan was wrong and the loan is therefore defaulted. At the same time the operational staff and the Branch Manager face continuous pressure of achieving the loan disbursement targets from the upper layers. However, whenever they return from second time field work, they need to do a lot of data processing and reporting works at the branch office, and typically this lasts until midnight. They need to work in this way six days a week. The calculation and reporting take much more time at the beginning and the end of month because of the preparation of monthly reports and for the preparation of new monthly collection sheets. The field work is also much higher near the end of the month because of the pressures of achieving the monthly disbursement target and recovering the dues, as all these have to be written on the monthly report in order to avoid the pressure and even bullying from the management of upper layers. The management of upper layers are also responsible for their portfolios, and in turn suffer from pressure and bullying from seniors.

It has been a common incident within the microfinance sector that the borrowers abscond from the area after making their loans default. The continuous pressure of the work, tension over default loans and fears of compensations create different negative impacts upon the morale of the human resources working in microfinance organizations. They may go for financial misappropriations if they need to pay from their salary to compensate for unrecovered instalments or mistakes made during feasibility assessment, although the pressure of disbursement was high even in the situation where available eligible borrowers were less than the disbursement target. It may also be the situation that if they go for maintaining all the rules of disbursements then the disbursement target cannot be achieved. Many focus group participants said that sometimes they cannot do a rigorous assessment and disqualify the loan applications because they have to fulfil the disbursement target in order to remain in the job. In the socio-cultural context of the country, women employees face more challenges to cope with this working situation.

5.3. ICT Mediated Change

It has been observed that the scenarios within the microfinance organizations using ICT in their information systems are not as described above. Using Focus Group Discussions and Semi-Structured Interviews, authors identified the impact of ICT on human resources and socio-cultural perspectives of microfinance organizations. The observed ICT mediated changes in human resources and socio-cultural landscapes within microfinance organizations are discussed below.

5.4. Operational Performance

The operational performance is one of the critical aspects in microfinance organizations. It is strongly linked with the long debated interest rate of this sector in one hand, and the sustainability of non-subsidized microfinance organizations on the other hand. A growing body of critics condemn microfinance for its very high interest rate (effectively about 30%), which is unbearable as the cost of capital for almost any economic enterprise in which the microfinance borrowers invest the loan money (Ahmed, 2004; CGAP, 2006; Bateman, 2010). However, because of the nature of lending - very small size of loan, and the approach of operation - loan supplier goes to receiver's end for disbursement and goes through a continuous monitoring and supervision process until the full recovery is made, and because of high loan loss, the majority of microfinance organizations face capital erosion even with this high rate of interest (Reed, 2011). In these circumstances, operational performance is one of the critical success factors for any microfinance organization. Increased operational performance of human resources could be an effective weapon to address the problems of higher interest rate and sustainability of the organization. In this study, it has been observed that operational performance of human resources of microfinance organizations has been increased significantly because of the use of ICT in their work process. The staff members working in the frontline operational level of the ICT using organizations (BRAC, ASA and DBS) deal with almost double portfolio than the portfolio of operational staff members of manual information systems using microfinance

organizations (TMSS, UDDIPAN and SJK). Similar difference in performance has been seen even where the both types of organizations working within the same borrowers' community. The participants of FGDs and qualitative interviews mentioned that the ICT has been playing main engendering role for this change in operational performance through time saving in record keeping and report preparation and getting operational information in a much easier way.

5.5. Supervisory Performance and Policy Formulation

Depending on the size and geographic coverage, microfinance organizations have supervisory layer(s) above the front line operational level. It has been observed that because of the use of ICT, span of supervision is significantly higher in ICT using organization than that of the organizations using manual information system. Because of the higher, quicker and better information availability, the efficiency of the supervisors increased significantly and hence can supervise the operations of bigger portfolio in larger geographical locations. Because of the use of ICT policy makers of microfinance organizations can gather detailed and analytical information from the operational areas and are able to form and implement more realistic policy for the organizations. It has been observed from the semi-structured interviews that in the cases of organizations using manual systems, the process of policy formation is more of intuition-driven than that of ICT using organizations where the policy formation process is more information-driven. Because of the use of ICT supported sophisticated financial and management parameters the policymakers become more capable of formulating better operational and strategic policies for microfinance.

5.6. Job Satisfaction

Working in microfinance especially at the operational level has been laborious, unpleasant, financially risky, and perceived to be a non-prestigious job within the society. Almost all staff members participated in FGDs and interviews within the manual systems using organizations expressed dissatisfaction about their jobs in microfinance. They expressed their frustrations about the nature of work, working environment, working time, remuneration and social unacceptability with different examples that they encountered during their working time in microfinance. On the other hand, almost all participating staff members of ICT using organizations asserted that they were not unhappy with their jobs. They claimed that working in microfinance is not worse than working in other sectors where they are capable to work. They mentioned that because of using ICT most of the factors that contribute to job dissatisfaction are feeble here, and their ICT-supported higher performance is paid off with higher remuneration.

5.7. Retention and Migration Pattern

Usually, the retention rate of human resources is very low in microfinance organizations. Switching from one organization to another or to other sector is very high than that of many other sectors in the society. As the senior management staff members mentioned in their interviews that after introduction of ICT, the retention rate has increased noticeably and the flow of job migration has been mostly from manual systems using organizations to ICT using organizations.

5.8. Gender Ratio

In microfinance arena, about 90% borrowers are female, and for that female microfinance workers have some advantages over male workers in working with the female borrowers within the socio-cultural context of many developing countries. However, because of the nature of work and working environment discussed earlier, the ratio of female workers has been significantly low in most of the microfinance organizations. Because of the ICT mediated changes in work process and the working environment, the proportion of female workers increases in the microfinance organizations where ICT is used in information systems.

5.9. Performance Appraisal

Traditionally, the process of performance appraisal of the human resources of microfinance organizations has been manual, intuition-based and noticeably biased. As the performance appraisal systems are manual, providing incentive and disincentive are largely dependent on the ability of managing relationship with the higher level of management staff rather than operational performance, which has adverse effects to overall organization. Organizations that have been using ICT in their information systems can easily see and analyze the performance of any staff member and are able to appraise performance using real data and generated during their operations. It has positive implications to increasing performance, job satisfaction, ethical ambiance and overall organizational culture in microfinance organizations.

5.10. Socio-cultural Landscape

Another qualitative change in the human resources of microfinance organizations has occurred as a consequence of the use of ICT. Bullying used to be a common practice in microfinance management. Because of the improved working environment in the ICT-using organizations as discussed above, the motivation and morale of the staff are being changed in a positive way. As a result, the bullying and the bad reputation of microfinance management are being reduced as the senior staff members stated in their interviews. However, because of the introduction of ICT information systems, a segment of the employees faced problems in continuing their jobs in microfinance. Some employees who have been working in the organization for a long period of time, with lower educational qualifications but strong motivation to community work, have become sidelined within the organizations that started using ICT. This category of employee fares badly with the automation of the information systems. When BRAC started computerization of its information systems, it

faced the adaptation problem of ICT and had to launch a psychological counselling program for a segment of staff members.

5.11. Development Mindset

It has been observed that ICT engenders many positive changes in human resources of microfinance organizations as discussed above, but it may have detrimental effect to the social performance of microfinance program. It may lead the mindset of human resources of microfinance organization to business-oriented rather than development-orientated mindset. ICT may lead human resources of microfinance to be more mechanistic and ignore the non-financial activities such as group formation in the borrowers' community, discussion with the borrowers on the issues related to social and awareness development, and moving the marginalized community towards a socially and economically developed community in a sustainable way. Even ICT may act to reduce field visits of the human resources as the recovery of loan can be done remotely through ICT which may create individualism leaving collectivism among borrowers community. Collective approach in microfinance intervention is one of the basic cornerstones of this development program.

6. Conclusion

The study finds that ICT has significant effects on the human resources and socio-cultural perspectives of microfinance organizations. It has positive impact on operational performance, policy formulation, supervisory performance, job satisfactions, performance appraisal, retention rate and gender ratio among the human resources of microfinance organizations. It has also implications for change in the socio-cultural perspective of microfinance organizations. However, the study finds an ICT driven tendency of losing development mindset among the human resources involved in microfinance intervention. In order to remain microfinance program with its development objectives, the policy makers and the senior management staff of microfinance sector should take this matter into consideration, otherwise microfinance may loss achieving its development goals.

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