

# Replicating Social Innovations through ICT Devices: A Paradigm Shift

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## Abstract

Expanding the scope and impact of social innovations has been a source of major challenge to social ventures across context. And until an innovative solution that worked in a limited area is expanded in scope to match the magnitude of societal needs, it isn't social value. The study employed analytical research of existing works of leading scholars in the area of social entrepreneurship from extant literature while inculcating the potentials of ICT devices that facilitate accomplishment of major social objectives. Finding revealed that the deployment of ICT enhances ability and capability of social ventures to greatly expand the scope of their social innovations, improve efficiency, effectiveness and sustainability of social programmes.

**Keywords:** Social Entrepreneurship, Social Innovation, Social Ventures, Information and Communication Technology

## Introduction

The expected benefits from globalization – enhanced economic growth that benefits greater number of world citizens – has become very elusive in most societies today (Stiglitz, 2012). This culminates into ever-growing economic inequality, fuelling increased political-power inequality that further exacerbates increased economic inequality. The overall effect is mass poverty, illiteracy, diseases and early deaths. However, the situation is not completely hopeless, as the advent of social entrepreneurship; which is primarily to proffer innovative and sustainable solutions through innovative combination of locally available resources that identify the root cause of endemic humanitarian crisis, transform them into business opportunities the exploitation of which benefit society at large (Adele, 2014). It should be noted, however, that any such innovation must necessarily be easily expanded, transferred, copied and easily replicated without decline in quality (Bloom and Smith, 2010). One important approach this could be achieved is through the instrumentality of Information and Communication Technology (ICT) – a destructive revolution, epitomized by devices like smartphones, television, internet and other electronic transmitters, that seek to encourage modernization to the point it renders existing technologies obsolete.

The main objective of this study is to examine effectiveness of deployment of ICT tools to scale-up social innovations (values). Specifically, the study extended prior works on drivers of scaling (Bloom and Charterji, 2009; Bloom and Smith, 2010) by adding the effects of technical progress of ICT tools deployment. It attempts to systematize existing knowledge with appropriate technical factors that can help social organizations accomplish their objective of proffering sustainable solutions to socio-environmental problems afflicting most societies today in a magnitude that matches extent of needs.

The pervasive and persistence growth in mass poverty being experienced all over the world has necessitated the need to fashion out alternative approaches. Social ventures strive to find ways of spreading innovations that have been observed possess potential solutions in a limited area to be expanded in scope and effectiveness in order to widen its positive impacts on society at large. ICT devices have been effective in the collection, processing and use of information. It is the foundation of most economies and a driving force of social changes in the 21<sup>st</sup> century (Gorana and Dario, 2011). Thus it can effectively compliment the capacity of social firms to greatly expand their scope, thereby assist them to reduce poverty index across the globe.

A social entrepreneur is an individual, group, network of organizations or alliance of organizations that seek large scale change through pattern breaking ideas about how governments, non-profits and businesses can address significant social processes (Light, 2005). A social enterprise innovatively combines available resources in ways that generates positive externalities and make conscious efforts to increase the positive externalities. Thus one distinguishing factor is the ability of a social enterprise to scale up its social impact, with a view to create and sustain social values and lift a large number of people out of poverty.

Research works on social entrepreneurship is still in its infancy stage (Nicholls, 2006; Brigitte, et al, 2010). Much effort has been dedicated to laying conceptual foundations. More so with respect to scaling social impact which constitute the most potential dependent variables in the field (Bloom and Smith, 2010). However, scholarly efforts from Bloom and Chartegi (2009) as well as contributions from Bloom and Smith (2010) with

respect to the SCALERS model have laid a good foundation for academic works on the subject with empirical flavours. This study is an extension of the SCALERS model that inculcates technical progress into the capability to scale up social innovations. Specifically, the study provides a framework through which ICT can help replicate social innovations at a magnitude that matches the extent of societal needs

### **Methodology**

Analytical research of existing works of leading scholars and researchers in the area of social entrepreneurship, most especially, research work on scaling social innovations as found in extant literature were utilized for the study. Thus the SCALERS model developed by Boom and Chaterjji (2009) as well as Bloom and Smith (2010) form the kernel of the study.

### **Social Values/ Social Innovations**

The persistently growing socio-economic inequality and concern for the environment (World Bank, 2007) characterizing most economies today has necessitated the call for alternative approaches to tackling the menace. Hence the call for social entrepreneurship that proffers innovative and sustainable solutions that are meant for the generality of the populace without exclusion. Social value was aptly described by Mair and Marti (2006) as a novel solution to a social problem that is more effective, more efficient, more sustainable, and that is just more than existing solutions for which the value created accrues to society as a whole rather than private individuals. By implication, this is a bit different from wealth creation as economic value is subjugated for the social value. Corroborating this view, Aureswald (2009) affirms social value is the creation of benefits or reduction of costs for the society through efforts that address societal problems and needs in ways that goes beyond private gains. Thus social value is any combination of innovative strategies that are deployed to bring much better solutions to social and environmental problems. It should however be noted that, innovation would only be social when it is capable of turning a situation of unsatisfactory (unjustified) equilibrium – that made majority of people to accept the inconvenience as something they must tolerate – into an opportunity to create new solutions whose benefits accrue to the larger society (Martin and Osberg, 2007). By implication, such innovation must not only be an effective solution, but must also be available, sustainable and generally affordable.

### **Scaling of Social Innovations**

In social entrepreneurship context, Dees (2001) describes scaling as a process of increasing a social-purpose organization's product/service to better match the magnitude of the societal needs/problems it seeks to address. It is a process by which a programme that has helped to proffer solution to a social problem in a smaller scope is expanded to broaden its impact on society. This is a bit different from venture growth in entrepreneurship literature. Wernerfelt (1984), in his Resource Based Theory of the Firm, posits that organizational growth is a function of the resources of the firm, and that growth is predicated on ability to harness critical resources, strategy and industry context. However, this is only where the target market could afford the firm's products/services. For social values, there's no exclusion, whatever is produced must necessarily be made available and affordable. This is why Mair and Marti (2006) observed that while economic value is created for the very market that can effectively afford it, social value lacks such financial/economic incentives which can motivate desired actions from important stakeholder. Thus creating and sustaining social value confront entrepreneurs with unique challenges as they must produce for a market that may not be able to afford even the production costs.

Contributions from Bloom and Chatterji (2009) in their study entitled the SCALERS model; draw extensively from a pool of theoretical research on different forms of capital and organizational capability. Drawing from the field of Strategic Management, Sociology and Entrepreneurship, which recognizes firm growth as a function of available resources (Penrose, 1959; Wernerfelt, 1984) and that firm resources is also critical to new venture growth (Gilbert, et al, 2006). The study was further extended with empirically flavoured academic efforts by Bloom and Smith (2010) which is no doubt an initial empirical test of the model. It provides a suitable framework upon which more scientific inquiries could be based. The original SCALERS model identified seven potential drivers of social impact to include: staffing; communicating; alliance building; lobbying; earning-generation; replicating and stimulating markets forces. A major critique of the model, as it affects previous approaches on scaling social innovation, was that it appears as practitioners framework based on few case studies. This was effectively taken care of by Bloom and Smith (2010).

While Bloom and Smith (2010), in their study, added to the theoretical foundations of the SCALERS model, they enriched the model by providing for both the validity and reliability of the measures as well as the predictive validity of the constructs that make up the model with a large sample of more than 500 social enterprises in the US. However, this study further extended the theoretical foundation by inculcating the concept of ICT – a disruptive technology with potentials to greatly assist replication of social innovations.

### **Scaling Social Innovations through ICT**

ICT is a generic word comprising all technical means used for handling information and facilitating communication. This includes information technology, telephony, electronic media, and all types of control and managing functions based on network technologies (Gorana and Dario, 2011). ICT is capable of delivering benefits to business firms through increased access to markets; service line development; improved efficiency; improved external relationships as well as improved revenue generation. Social enterprises could derive additional benefits with respect to improved social impacts and realization of social outcomes through efficient feedback within their target community.

Innovation is not just about good ideas, it is a combination of good ideas, motivated staff and an instinctive understanding of customer wants by a business firm (Tidd and Bessant, 2009). This aptly describes Branson (1998) position that an innovative business is one which lives and breathes outside the box. Thus social enterprises would fulfill their onerous objective of delivering efficient and sustainable solutions to social and environmental problems at a magnitude that is capable of changing the unsuitable equilibrium through innovative combination of available resources. This in turn could be enhanced through the instrumentality of ICT devices that is capable of increasing the quality and quantity of benefits to all and sundry.

Bloom and Charterji (2009) described staffing, first of the SCALERS construct, as the organization's effectiveness at filling its labour needs – including staff and volunteers – with people who have the right skills for their positions. This implies that for an organization to be able to manage and scale-up innovations, it must possess capacity to attract, recruit, develop and maintain high quality human resources. This could be done through education and training (both paid staff and volunteers) on critical basic skills. Building on this premise, Bloom and Smith (2010), formulated, tested and upheld a hypothesis that staffing is positively related to the scaling of social impact. However, a major constraint facing social entrepreneurial organizations is their lack of financial incentives to motivate/attract critical resources, including skilled employees (Mair and Marti, 2006). This constraint could effectively be circumvented by efficient deployment of ICT tools.

The employment of telemedicine, for example, could avail social healthcare outfits' ability to leverage on critical human resources. Thus the much needed experience and expertise could be tapped across wide distance through technology (Porter and Lee, 2013). This succinctly described the clinical expansion of Cleveland Clinic – a Heart and Vascular Institute – with some 19 hospital affiliates across the Eastern Seaboard in the USA. Well-staffed satellite facilities are equipped to deliver less complicated care while more complex cases are diagnosed through WiFi technologies (instead of satellite signals which could be more costly) from the headquarters. While all affiliates benefit from the expertise, experience and reputation of the parent organization, Cleveland Clinic, an NGO is able to broaden (scale-up) its regional reach and benefit from shared revenue – management fees and joint-venture incomes. Similarly, beyond the sporadic growth of Aravind Eye Hospital from an eleven-bed clinic in Tamil Nadu in 1992 to above 3500 beds in five hospitals across India, its services have been extended beyond India through networking, partnerships and satellite affiliation made possible by effective deployment of ICT tools. Diagnosis are done at different outlets (eye camps) where less complex cases are easily handled, eye glasses recommended and given free of charge, while cataract surgeries are carried out at designated outlets averaging 2000 operations a year (Naidoo, 2012).

Arising from the above, it could be deduced that the capacity of social entrepreneur to deploy state-of-the-art technology would very well complement competencies of well-qualified employees to be able to create, manage and scale up innovations in order to match magnitude of societal needs.

Communication is the second identified driver of scaling, and as described by Bloom and Charterji (2009), it is the ability to persuade potential beneficiaries to take advantage of its product/services, socially change their behaviours in beneficial ways, convincing employees and volunteers to work for the firm, encouraging investors, donors and other stakeholders to support the organization. This corroborate the position of Bourdieu (1986) and Hoang and Antoncic (2003) who variously described communication as the effectiveness with which organization organizes and develop social capital that could help expand its innovation. And that social capital performs important roles in the growth and development of entrepreneurial ventures. However, deployment of ICT tools would avail social ventures capacity to collect and transmit information timely, gather and process large data from where trends of events are easily monitored, future occurrence precisely forecasted and negative effects effectively prevented. Social media presents a platform through which information on new discoveries, new products/services are presented to the people through where these could be appreciated. This is a marketing platform to encourage patronages from all manner of stakeholders

From the above, deployment of ICT would avail social ventures ability to timely gather, process and transmit critical information that communicates its aims, objectives, discoveries, products and services, together with their potentials to solve societal/humanitarian problems on the basis of which it secures stakeholder's commitments.

Alliance building is the third identified driver of social scaling. This is described as the effectiveness with which social ventures forge partnerships collaboration and other linkages to bring about social changes

(Bloom and Chartterji, 2009). It is an essential ingredient in entrepreneurship that avail a firm opportunity to leverage critical resources it often does not possess. And as noted by Stevenson and Jarillo (1990), entrepreneurship is a process by which individuals pursue opportunities without regards to resources currently controlled. Resources are however critical to entrepreneurial success, hence they circumvent this constraint through networking that avail them opportunity to address challenges and accomplish goals they cannot independently. In the view of Piefer and Salancick (1978), all organization's outcomes are based on interdependencies because this exists whenever one actor does not entirely control all of the conditions necessary for obtaining the outcome desired from its actions.

Deployments of ICT avails social ventures opportunity to disseminate vital information on its innovations which enable them attract patronages from stakeholder. This ensures transparency of operations, marketing of the potentials of products/services to solve human problems that can endear it to its various stakeholders. While Bill and Melinda Gates Foundation are delighted at meeting their altruistic motives through funding /sponsorships of Institute for One World Health of Victoria Hale, that develops drugs for "neglected diseases", the NGO becomes fulfilled it could defy economic doctrine that profess production is only effected when there is effective market. Similarly, the Combat Blindness Foundation and David Green's Project 2004 decided to bankroll Aravind's innovation projects to ensure both succeeded in their mutually exclusive objectives – eradicate needless blindness.

While alliance building is critical to the success of both forms of entrepreneurships, deployment of ICT would assist in accomplishing scaling objectives severally. Thus, it could be concluded that alliance building is positively related to scaling social impacts.

Lobbying is defined as the effectiveness with which an organization advocates for government actions that may work in its favour. And through this, it succeeds in getting the courts, administrative agencies, the legislators and other government functionaries to work in its favour (Bloom and Chartteji (2009). All organizations need conducive legal and economic environment that can only be guaranteed by government policies. Ability to influence policies, as noted by Aureswald (2009), through initiating enactment of laws that foster favourable climate will positively influence business growth for the firm.

It should however be noted, that most government and their agents have succeeded in battling corrupt practices in its cohorts by imbibing advancement in technology to streamline their business activities, monitor/tracking movement of funds. The general adoption of e-government all over the world has attested to the dexterity of ICT in proffering solutions to fraud and gross inefficiency in the public sector performance. Hence, ability of social ventures to key-in, and compliment this drive will secure it the necessary government patronages.

Earnings generation is defined as the effectiveness with which a social venture is able to generate a stream of revenues that exceed its expenses (Bloom and Chatterji (2009). This is the ability to deploy pro-business mind set, involve economic activities through which they earn incomes to finance their operations. Non-Governmental Organisations, as opined by Dees (2001), would benefit from the focus of commercial enterprises of customer focus, sound strategy, effective planning, efficient operations and financial discipline. Similar views by Boschee and McClurg (2003); Bounstein (2007) and Bygrave and Zacharikis (2011), variously affirm that only NGOs that bring business expertise and market-based skills to bear on their operations could succeed in creating and sustaining social innovations.

Efforts to scale up innovations through ICT deployment could be engendered by turning physical features into digital ones. Such changes normally yield dividends as more affordable products/services are produced while reducing inefficient infrastructure as well as wasteful distribution channels. Adapting products and services to the needs of people at the base of the pyramid is one of the key success factors in all human development actions (Ramon, et, al, 2013). Deployment of ICT could avail social ventures opportunity to deploy state of the art techniques that mass-produce both new and existing products/services with new features and at low costs possible.

Replicating social innovation is described as the effectiveness with which social venture can reproduce its programmes and other initiatives at other locations (Bloom and Chartteji, 2009). Such services and efforts or break-through must be capable of being copied, transferred and expanded to match magnitude of needs without a decline in quality (Bloom and Smith 2010). This is usually effected through training, franchising, contracting and so on to ensure quality control. Deployment of ICT devices like e-learning, teleconferencing, electronic visuals would make replication possible at faster and affordable rates.

Stimulating market forces is described as the effectiveness with which an organization create incentives that encourage people or institutions to pursue private interests while also serving the public goods (Bloom and Chartteji, 2009). Stimulating market forces can lead to social change, more so when sophisticated ICT devices are deployed to disseminate information, knowledge, education, which are essential to live satisfactory lives. In line with this view, Castells (1998), posits that the integration of ICTs in human activities is consistence with the appearance of the Network Society. This aptly describes healthcare providers that

succeeded in selling their innovation to stakeholders who are willing and able to collaborate with them. Thus Association for Reproductive and Family Health often partners with philanthropic organisations to organize free healthcare programmes like Cancer screening, eye checks, high blood pressure within their catchment area to the benefit of all.

### Conclusion

Deployment of ICTs, with its attendant dynamism, flexibility of use, and general ubiquitousness enable social ventures to improve relationships with their stakeholders. This engenders improved capacity to expand the scope of its social impacts that proffers more effective, efficient solutions that are sustainably cost-effective and for the generality of people in need. This study explained how scaling social impact could be done effectively through deployment of ICT devices.

In the first instance, ICTs avail social enterprises opportunity to leverage on expertise skills (that are relatively critical to their success but with little or no incentive to lure them). This they circumvent through the use of telemedicine, video-conferencing, mobile telephones, social media to mention but few.

ICT can assist social ventures to organize data more quickly and systematically, by automating processes for periodic acquisition. Ability to gather and process large data efficiently could afford them opportunity to forecast occurrence with precision, prevent negative occurrence and assist in tackling recurrent problems.

Building long lasting relationships with important stakeholders is predicated on a smooth flow of information. Investors, sponsors, employees, volunteers and more importantly beneficiaries must be reached at with accurate information that is capable of selling the ventures innovations to be acceptable to all. This could be done through social media, television, etc.

ICT provide huge opportunities for improving social values as providers integrate into systems that eliminates fragmentations, duplications and inefficiencies. This often led to optimal production of goods and services at every location.

While the study has contributed to available literature on one very important attribute of social entrepreneurship – scaling – it did not evaluate the level of IT-compliance of both the NGO officials and their various stakeholders. There is need for further research on the empirical validation of the effects of ICT deployment on scaling social impact.

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