

Toward A Value Proposition of Digital Opportunity Trust

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

This study aims to advance the understanding of Digital Opportunity Trust's (DOT) value proposition by characterizing the 'modus operandi' and to develop a method to explore the impact of entrepreneurship in the developing (or under-developed) regions of the world undertaken by Digital Opportunity Trust. DOT is an initiative to help reduce poverty, and to achieve greater social and economic stability by empowering people with skills and knowledge by utilizing new technologies in their communities. Prior research suggests the adaptation of 'Information and Communication Technology' (ICT) and technological advancement as a means of addressing 500 million people worldwide, those residing at the 'bottom of the pyramid' (Prahalad, 2005) for an effective social transformation.

"Digital Opportunity Trust (DOT)" is one of the not-for-profit (NFP) / non-governmental organizations (NGO), which strives to accomplish this goal by blending 'entrepreneurial' education with 'corporate social responsibility' to foster new ventures that use digital communications technology. DOT is operating in eleven (11) countries for more than eight (8) years now, rendering it important to validate and evaluate the extent to which Information and Communication Technology ICT allows people in poor communities to exchange knowledge, and to compete with new enterprise.

Personal interviews (Case Study Methodology) with DOT's executives, staff, interns and contractors were arranged to gather insightful information and to characterize the value proposition. The aim is to gather estimates of achievement for each of the defining attributes ('as things are' to reflect present achievement and 'as things could be' to reflect how far the attribute might be 'pushed').

While it must be the responsibility of DOT's leaders to articulate formally its value proposition, evidence gathered in this case study points in possible directions. For example, DOT's value proposition is based on a humanitarian goal and a win-win situation that benefits the people of underdeveloped regions as well as DOT itself. DOT does not merely advance monetary aid to the poor regions of the world; rather it creates a model of economical

sustainability. It empowers people by imparting technical prowess and training to them. This not only keeps them abreast of the whole world, but also helps improve their quality of life.

DOT provides technological initiatives and programs in developing areas, while adhering effectively to accountability structure. Multinational companies and not-for-profit organizations can gain useful and practical knowledge from DOT's experience. DOT brings an edge to entrepreneurship by advocating productivity and skill, especially in technological fields. The poor man's plight turns into a healthy, industrious skill. An emerging paradigm for creating shared value suggests that this is precisely the model worldwide corporations should invest in and apply in these ever-challenging economic times.

Keywords: value proposition, not-for-profit (NFP), non-governmental organizations (NGO), information and communication technology (ICT) for developing regions, creating shared value, entrepreneurship training, empowerment, digital opportunity trust, DOT

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Chapter 1

Introduction

“This wealth should not become confined only to the rich amongst you” (Qur’an 59:7)

We live in a world of inequality. Developed regions enjoy easy access, not only to the necessities, but also to various luxuries and better living opportunities; whereas developing countries are barely surviving and have constrained means. In the past many efforts were made by developed countries to help eradicate poverty in the world. However, today when we measure and analyze those efforts, we see a less than ideal situation: poverty level has increased rather than decreasing. Moreover, developed countries now face problems in maintaining their donation obligations due to the prolonged financial and economic crisis since 2009. As mentioned by Bhattacharya (2009), “what we are witnessing today, for instance, is that there is less money for less developed countries compared to what was available in the 1990s. There is a loss in real terms, even when the current value of aid flow has increased”. This phenomenon is sometimes referred to as “phantom aid” or “missing money”. The problem of increasing poverty despite increased aid we shall call “poverty predicament”.

Various solutions have been proposed to deal with the poverty predicament. Many have debated over the optimal role of developed countries to deal with this issue. Some have raised concerns about continuing to provide funds to defaulted countries. The question that developed countries need to rethink their strategies to empower the underprivileged masses of the world also heaves concern for their policy makers. With this premise as a background, this thesis attempts to find the relationship between measures taken to eradicate poverty and their effectiveness and the resulting implications. We examine the case of a specific not-for-profit (NFP) / non-governmental organization (NGO) known as Digital Opportunity Trust (DOT). This case will highlight important aspects of the literature on the poverty predicament. We also highlight the benefit that DOT model is creating in the world.

The following structure will be followed to make connection and relevance of the study with the underlying problems and possible solutions through articulating the value proposition of a

digital opportunity initiative (Digital Opportunity Trust, DOT) and building a case to extract and discuss the larger benefits for the society:

- Poverty crisis – Is aid an ineffective means to eradicate poverty?
- Alternatives to aid dependency
- Absorptive capacity enhancement through introduction of collaborative techniques
- Articulation of DOT's value proposition
- Benefits extended to all stakeholders.

This structure defines the conceptual framework of the study, followed by the research methodology, data analysis, concluding discussion and future research prospects.

1.1 Poverty Crisis – Is Aid an Ineffective Mean to Eradicate Poverty?

According to the World Bank (Narayan, 2000):

“Poverty is hunger...lack of shelter...being sick and not being able to see a doctor. Poverty is not being able to go to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and freedom. Poverty has many faces, changing from place to place and across time, and has been described in many ways. Most often, poverty is a situation people want to escape.”

The latter part of the definition suggests that poverty involves lack of empowerment and freedom. This is mostly the case in the developing countries, where people may have shelters, or remote access to medical facilities, they frequently are not empowered enough to make choices for themselves.

In addition to the presented definition by World Bank, interestingly, poverty is also referred to as a multidimensional phenomenon that:

“...never results from the lack of one thing but from many interlocking factors that cluster in poor people's experiences and definitions of poverty”.

One example that forms an underlying basis of this thesis is taken from World Bank's initiative in the Philippines in 1999, where local women stated: "We boil bananas for our children if food is not available. In some cases when the Department of Agriculture distributes corn seeds, we cook these seeds instead of planting them" (Narayan, 1999). This phenomenon of borrowing the funds to purchase and eat seed corn is one factor in keeping the developing countries in a vicious cycle of constant poverty.

To deal with this, the developed world started taking interest and initiated diverse techniques to assist and control poverty in those underserved communities. Various forms of this assistance include food programs, infrastructure development, security improvement, and technical expertise exchange. To further investigate all other types of assistance / aid programs is beyond the scope of the study. However, it would be helpful to define the concept of aid and put it briefly in a historical context.

The following discussion is based upon the arguments (excerpts) advocated by Moyo in her book, *Dead Aid* (2009). According to Moyo, aid is defined as "the sum of both concessional loans and grant", and it has three types; the "Humanitarian or Emergency Aid (distributed in response to disasters), Systematic Aid (payments made directly to governments) and Charity Based Aid (disbursed by charitable organizations)". The following excerpts from the book shed light on the history of aid which helps in connecting the implications and consequences of such initiatives to develop a framework that understands the effectiveness of aid being an important driver for poverty alleviation.

"The origin of large-scale aid transfers date as far back as the nineteenth century – when even in 1896 the US provided overseas assistance in the form of food aid, Under the Colonial Development Act of 1929, the British government administered grants for infrastructure projects across poorer countries. Aid transfers in these early periods were as much about donor largesse as they were about political control over the colonial domain, and only later, in the 1940 British Colonial Development and Welfare Act, was the programme expanded to allow funding of social sector activities". (Moyo, 2009, pg. 10)

It is evident that the concept of aid is not a recent one; it has been formally in place for over many decades. The reasons for taking such an initiative for developing countries could vary, depending upon the current situations. However, when we look at the outcomes, we see a mixed trend with both successes and failures. Very briefly, the following timeline, extracted from Moyo's book, *Dead Aid* (2009) would adequately address the aid stance in different eras:

- 1896 – Beginning of aid (US providing food aid)
- 1940 – Bretton Woods Conference (Strengthening of multilateral trade)
- 1950 – Marshall Plan (Aid package of US for a devastated Europe)
- 1960 – Era of industrialization
- 1970 – Shift towards aid as an answer to poverty
- 1980 – Aid as a tool for stabilization and structural adjustment
- 1990 – Aid as a buttress of democracy and governance
- 2000 (onwards) – Obsession with aid as the only solution to problems.

Before proceeding further, it is important to develop an understanding of who is giving aid to whom and for what purpose. According to Griffin and Enos (1970), “the myth is that it is the rich countries that are assisting the poor, but if we were to classify the rich countries on one side and the poor on the other we would find that there were poor countries which give and rich which receive”. However, continuing the model of aid as a tool to eradicate poverty for many decades was initially banked upon research driven by Papanek (1972), when he concluded that there is “a positive impact of aid on growth within a multiple regression context”. This conclusion allowed policy makers to entertain the possibility that poverty across the world could be largely eradicated, that countries could move out of poverty through the allocation of aid and that by pursuing successful policies increased prosperity from their own resources was possible. “Unfortunately after some thirty (30) years the poor are still with us, poverty shows relatively little signs of disappearing and until recently enthusiasm for aid amongst donors had declined” (Hudson, 2004). Most of the aid assisted developmental programs were primarily initiated in the

African regions. However, after receiving persistent aid from the developed countries, African countries are still as poor as they were many decades ago.

“More than US \$2 trillion of foreign aid has been transferred from rich countries to poor over the past fifty years – Africa the biggest recipient, by far. Yet regardless of motivation for aid-giving-economic, political or moral – aid has failed to deliver the promise of sustainable economic growth and poverty reduction. At every turn of the development tale of the last five decades, policymakers have chosen to maintain the status quo and furnish Africa with more aid. Aid has not lived up to expectations. It remained at the heart of development agenda, despite the fact that there are very compelling reasons to show that it perpetuates the cycle of poverty and derails sustainable economic growth.”(Moyo, 2009, pg. 28)

The poverty predicament is not limited to the African countries: even within the United States, aid does not necessarily rescue struggling regions. Quite evidently, aid may not be a long-lasting solution to poverty. In fact there are quite a few examples suggesting the ills aid distribution has caused for the aid recipients. The most common issue is the governance of the aid money / resources given to the developing communities. According to Alesina and Dollar (2000), one of the basic reasons for the failure of aid in the developing countries is the poor performance of their bureaucracies. The following excerpts would outline the issue of rising corruption in the aid beneficiary countries in detail:

“After his meeting with President Reagan, Zaire’s President Mobutu Sese Seko had asked for easier terms to service the country’s US \$ 5 billion debt; he then promptly leased Concorde to fly his daughter to her wedding in the Ivory Coast. According to Transparency International, Mobutu is estimated to have looted Zaire to the tune of US \$ 5 billion; roughly the same amount was stolen from Nigeria by President Sani Abacha and placed in Swiss private banks (later US \$ 700 million of the loot was returned to Nigeria). It’s not, of course, just one person who has taken the money. There are many people, at many different levels of the bureaucracy, who have funneled away billions of dollars over the years. Corruption is a way of life.”(Moyo, 2009, pg. 22)

The major argument presented by Moyo (2009) is that aid given to developing countries where they lack proper check and balance infrastructure results in embezzlement of funds, more corruption, and less trickledown effect. According to Boone (1996), aid does not facilitate increased growth of a country; however, in reality it further expands the governments of the recipient countries.

It is strange that despite the incapacity of developing countries to repay aid money, donors still bail out even more hefty amounts of loans, which continues the cycle of aid that in turn directly or indirectly increases the poverty level. According to Jepma (1997), the foreign aid ‘crowds out’ private saving, and has very little or almost no effect in terms of promoting growth and good macroeconomic policies in developing countries.

“This is the vicious cycle of aid. The cycle that chokes off desperately needed investment, instills a culture of dependency, and facilitates rampant and systematic corruption, all with deleterious consequences for growth. The cycle that, in fact, perpetuates underdevelopment, and guarantees economic failure in the poorest aid-dependent countries” (Moyo, 2009, pg. 49)

On the other hand, it has been observed that when aid is given to countries with effective accountability laws, the overall condition of that recipient country improves and results in betterment of those countrymen; as in the case of European countries during post-war era. Studies show that aid has impacted the growth in developing countries having adequate fiscal, monetary and trade policies, but had diminutive results in countries with inadequate policies (Burnside & Dollar, 2000; Hudson, 2004).

This discussion introduces various dynamics of aid and its effectiveness and utilization as a tool to eradicate poverty. According to Svensson (1999), aid is “judged on two criteria: growth and poverty-alleviation and it is justified to the extent that it benefits the recipient, rather than to the donor”. It not only supports Moyo’s (2009) point, but also provides a ground to consider alternatives to aid dependency, especially in the developing countries where there is an inadequate check and balance system.

1.2 Alternatives to Aid Dependency

Various alternatives have been proposed to enhance development in the under-developed or under-served masses of the world that address the concerns about corruption and incapacity issues cropping up in those regions. Apparently, there is a whole paradigm shift in the working of the aid organizations lately; where they are stressing more on the self-empowerment and sustainability options, rather than extending reliance and dependence on the aid resources for a longer period of time. In past few years this notion has gained momentum and showed aid organizations a direction to incorporate new and innovative techniques to transform the unprivileged masses into independent, motivated and empowered individuals or communities. Some of such techniques are outlined below, followed by a brief discussion about it:

- Application of Information and Communication Technologies (ICT) to foster entrepreneurship and novel forms of business enterprises
- Promotion of Foreign Direct Investment (FDI) instead of re-issuing more aid money
- Encourage trade and innovation in economic development models (such as micro-franchising or micro-financing) to suit the local dynamics or challenges of the developing or underdeveloped regions of the world.

The alternatives are not limited to the above mentioned options only; however, these options are in line with the scope of the thesis. To discuss about the application of ICT as a potential tool to eradicate poverty and to address an optimal way to utilize aid resources in the less fortunate regions, the work of Solow (1957) points out the right direction, “investment in machinery cannot be a source of growth in the long run. The only possible source of growth in the long run is technological change.” Regardless of the industry of operation, the same principle rings true for any sector or market. In the longer run, to see the developing countries foster growth, there must be application of various technologies to find a sustainable and permanent solution to the problem. According to Carayannis and Zedtwitz (2005), there are five types of economies, referred to as: subsistence, emerging, developing, transitioning and developed economies. In order to grow quickly out of the subsistence type of economy, we should introduce technology and apply innovative techniques. According to the Asian Development Bank’s report (2001),

“The world economy is in the midst of a profound transformation, spurred by globalization and supported by rapid development of ICT (Information and Communication Technologies) that accelerates the transmission and use of information and knowledge. This powerful combination of forces is changing the way we live, and redefining the way companies do business in every economic sector”. This finding exerts importance on applying ICT techniques to develop sustainable solution to the issue of poverty by bridging the digital divide. Developing better cooperation among donors and recipients of aid can help optimize the role of technology to alleviate poverty (Carayannis et al, 2005).

The developing countries have abundant manpower (Dubhashi, 1987), which needs to be transformed into skilled human capital. One tool could be the introduction of ICT techniques through which people of those regions start their own businesses / entrepreneurial ventures and apply various innovative ideas and processes to deal with their local problems. This notion has been discussed by Carayannis (2005) as, “Information and Communication Technologies (ICTs) are enablers of change; they release creative potential and knowledge and open up global markets and foster competition”. ICT techniques, such as, “distributed teamwork, mobile work, tele-work, inter-organizational networking, and outsourcing activities to other countries” (Koopman & Andriessen, 1996) could provide opportunities to the underprivileged masses to take business initiatives and become self-reliant and less dependent on foreign aid.

Similarly, another potential alternative to limit aid dependency is to encourage local economic development through Foreign Direct Investment (FDI) in underserved communities. Prior research suggests that private flows of investment primarily depend upon the governing policies of another country, and are unresponsive to other considerations. Also, most of the times these investments will go to developed countries where the markets are bigger and promise better returns. There is little chance that private investors would take interest in developing countries even if the governing policies are conducive for businesses (Alesina & Dollar, 2000). However, in contrast to this notion, Prahalad (2009), Moyo (2009) and Porter (2011) have debated about investing (FDIs, trade) in the developing regions to resolve the issue of poverty in the real sense.

China is one of the best examples to understand the importance and benefits of investing in African regions, rather than donating aid money to the people there. China has invested in developing infrastructure by building roads in most of the African continent and providing its people access to better means of trading and travelling. In return Chinese companies would gain access to the un-tapped markets of Africa (Moyo, 2009). It makes a win-win situation for both the stakeholders.

Another solution to the prevailing aid crisis in the developing countries is by promoting trade, as mentioned by Bhattacharya (2009) in one of his special talks at Geneva Lectures on Global Economic Governance, “Over the past several decades, how many ways have we associated the terms ‘aid’ and ‘trade’? I can recall a time when we talked about ‘Aid or Trade’, and then ‘Trade, not Aid’. Eventually, the rhetoric changed to both ‘aid’ and ‘trade’ followed by campaigns for giving ‘Aid as Trade’. Now, it is ‘Aid for Trade’. While these represent different phases of the evolution of aid discourse, for me, what is important is the issue of quality: we need more effective aid and more high-value trade”. Increased international trade has always been pursued, but the focus has shifted recently from macro trade to innovation in the economic development models, using micro-franchising and micro-financing models to suit the local dynamics. According to (Fairbourne et al, 2007), micro-franchising “has a social connotation that refers to grassroots bottom-up initiatives, poverty alleviation, benevolence, base of the pyramid, and the like” and micro-financing is the “provision of capital to a person who lacks access to a formal financial institution”. This concept of empowering the masses at the “bottom of pyramid” through cooperation of Multinational Companies (MNCs) by applying micro-franchising and micro-financing models have been talked about by several authors, including, Prahalad, Lieberthal, Hart, and Hammond, in late 1990s and early 2000s (Hoyt & Jamison, 2007). According to them, there is a vast majority (almost 5 billion people) living at the bottom of pyramid, which can be transformed into potential customers for corporations around the globe. This can be highly beneficial to corporations in terms of profit maximization as well as for the masses by gaining access to better products and services and exploring new opportunities for an improved life style.

Micro-franchising allows better opportunities for social businesses / entrepreneurial ventures to provide products and services localized enough to attract the masses. That way the prices remain affordable for consumers (Fairbourne, 2007). Similarly micro-financing allows access of seed funding to the masses residing at the bottom of the pyramid. It also encourages them to start their own ventures that may result in better job opportunities for the local population and result in creation of a self-sustaining business model that extends benefit to the underserved masses of the world.

1.3 Creating Shared Value

One view is that corporations are creating profits at the expense of the community and not creating profits that actually benefit the society (Porter & Kramer, 2011). That is the reason why researchers have been thinking of resolving this mistrust issue through some framework that benefits a wider range of stakeholders.

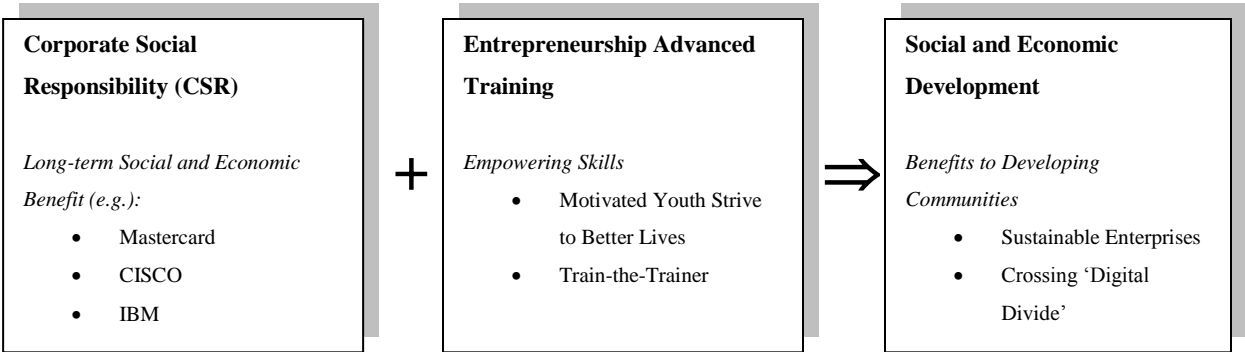
To deal with it, Porter and Kramer (2011) have come up with the concept of ‘creation of shared value’ in the community. This can also be thought of as a reaction to the conventional “Corporate Social Responsibility” practices. The important aspect to understand is that business and society are both inevitably intermixed and important for each other. But in the current scenario, most communities complain that corporations are generating big profit gains and yet there are no jobs or employment. Porter and Kramer (2011) advocate this issue by defining the concept of ‘creating shared value’, according to which “what is good for the societies is good for the businesses”, meaning that by creating social benefit, actually corporations are gaining sustainable economic benefit which is good for both society and the corporate world. More insights on the concept of ‘creating shared value’ are given in the conceptual framework section of this thesis.

1.4 Absorptive Capacity Enhancement Through Collaborative Techniques

As pointed out by Moyo (2009) “at early stages of development (when countries have relatively underdeveloped financial and institutional structures) there is simply not enough skilled manpower, or there are not enough opportunities, to put the vast aid windfalls effectively to work. Economic researchers have found that countries with low financial development do not

have the absorptive capacity for foreign aid”. This argument makes perfect sense as people living in the underdeveloped regions lack in technical skills, education and training. How can they sustain their business initiatives for longer periods of time, especially when it involves the use of modern technologies? To deal with this issue, collaborative efforts are required to increase “national absorptive capacity” of these regions. According to Dahlman and Nelson (1995), national absorptive capacity is “the ability to learn and implement the technologies and associated practices of already developed countries”. A possible solution would be that developed countries assist by providing technical training to the masses of the developing countries. A mutually beneficial business model with collaborations between corporations and NGOs could be adopted to expand the profit pie and extend benefits to the underserved communities at the bottom. This collaboration would allow corporations to enter new markets with huge potential and with the help of NGOs the risk of tapping new arenas would be mitigated. Rather than providing monetary assistance to the developing countries, the donors could extend a mutually beneficial model, as shown in Figure 1 (below):

Figure 1: Enhancing Absorptive Capacity in the Developing Regions



By providing training to people about use of technology in the underserved communities, prospects of initiating and fostering new businesses would definitely increase. When corporations put their CSR funds to this cause, other than creating social, economic and development benefits to people, it is expected to gain benefit for themselves too (in terms of business expansion into new arenas).

1.5 Articulation of DOT's Value Proposition

With all this discussion as the background, it makes perfect sense to streamline, which according to Lewin (1958) is to Articulate → Decompose → Recompose the value proposition of Digital Opportunity Trust (DOT), and to present it as a case study in contrasting the past and current evolving practices to alleviate poverty in the developing regions. DOT is a good example of an agency that channelizes money from government supported agencies and corporations (CSR) to foster and promote entrepreneurship in those communities. According to DOT global, “Digital Opportunity Trust (DOT) is a leading edge Canadian international organization that focuses on creating educational, economic and entrepreneurial opportunity through effective use of Information and Communication Technologies (ICTs) for communities and people in the developing world – with a particular focus on youth and women. DOT also delivers special outreach programs to marginalized communities in partnership with the donor community”. The purpose of presenting DOT as a case is to understand how and why such initiatives create value in the system and how they define contemporary ways, such as creating shared value to bring betterment in the developing world.

1.6 Benefits Extended to All Stakeholders

By articulating the value proposition of DOT, we develop better understanding of how such initiatives are extending benefits to all types of stakeholders. The most important stakeholder is the society, the people stacked at the bottom of the pyramid. If they could see the benefits of creating shared value from the application of ICT and other economic models (as discussed above), overall social value would be created which would eventually benefit the corporations as well. According to Dahan et al (2010), “multinational enterprises face a range of challenges when entering developing countries, including the need to adapt their business models to local markets’ cultural, economic, institutional and geographic features. Where they lack the tangible resources, intangible knowledge needed to address these challenges. Multinational enterprises may consider collaborating with non-profit non-governmental organizations (NGOs) to help facilitate new modes of value creation”. This cycle of shared value creation would continue in the society, where resources generated through corporations, government-supported agencies

would generate benefits for the society, and circle back to the corporations and government-supported agencies. There are many examples of such initiatives working around the globe.

From DOT's stand point, to attain the ultimate goal of fostering self-sustaining social entrepreneurship in developing countries, it is essential that they utilize their full leveraging capabilities in providing best offers to all stakeholders; and those include social enterprises, national level governing bodies, and partnering organizations (multinational corporations). To enhance the understanding further there needs to be a conceptual framework for the DOT 'value proposition' case study.

To summarize the above discussion before developing the conceptual framework of the study, we have examined that much of the literature about aid given to developing countries draws a comparison between growth and the aid received by the underserved communities (Pallage & Robe, 2001). After the start of formal aid donation in 1940s (Moyo, 2009), many scholars and researchers in a decade's time started to validate and study the relationship between the aid and growth of the recipient country. Friedman (1957) and Papanek (1973) analyzed this notion and found a positive relationship between the two variables. Depending upon this research, more aid efforts were made in the coming decades. Later, Boone (1994) and Easterly (1999) concluded that aid doesn't actually boost economic growth in developing countries. However, the size of the recipient governments increases with aid inflow. Evidence provided by Keefer and Knack (1995) validates that corruption draws a negative effect on growth; consequently, a cyclic effect is triggered when private investments and revenue generating prospects decrease. Overall, the confidence of potential investors deteriorates and affects the overall business activities in those particular countries. Similarly, Alesina and Weder (2002) found upon close inspection of whether non-corrupt countries receive more aid or not, that corrupt countries receive more aid. One issue leading to another, according to Al-Marhubi (2000), there is a positive correlation between corruption and inflation. Knack (2001) also discussed that aid doesn't confirm democratic setup in a particular country.

Contrariwise, Burnside and Dollar (2000) found that a positive relationship between the two variables remains only when governing policies of recipient countries are adequate. However,

Dalgaard et al (2004) advocated that aid has been effective in fostering growth in developing countries, but depends on the climate-related conditions. For instance, aid has created less impact in underdeveloped countries harboring tropical climate.

With this background knowledge, a relationship between current economic trends of the developing world, especially in the case of African regions (since they are considered most challenged and highly unstable) would help in developing a logical framework for this study. The average per capita income in Africa is less than US \$1 per day, which points to the ineffectiveness of aid dispersion in the continent. To date, Africa is considered as the biggest aid recipient in the world, even then the problems associated with the expanse do not seem to be resolving (Moyo, 2009). According to Collier and Dollar (2002) aid is distributed inefficiently to reduce poverty, largely because of continuation of the strategic motives of the donor countries. This notion helps in identifying the underlying factors that cause failure of development policies specifically in the poor regions. Elements such as corruption, lack of trickledown effect, and short-term economic focus prevent the developing countries in reaching the ‘emerging economy’ category. As a result this makes a society financially bipolar; the poor becomes poorer and the rich (the ruling class) becomes richer. It is about time the developed communities started tapping in the potential of these masses by offering trade and financial assistance in the shape of micro-loans, and put pressure on their governments to adopt open market structure (*laissez faire*) to enable the economy run on its own. This provides evidence of introducing Information and Communications Technologies (ICTs) and stabilizing those economies by providing the opportunity to educate the local population with medical, educational or entrepreneurial insights, and drive the overall economic system towards a self-sustaining model. Considerable emphasis has to be given on creating ‘viable self-sustaining business models’, in an economy which can turn five billion people worldwide, those residing at the ‘bottom of the pyramid’, into micro-consumers and producers to lift their social status and help them surface from poverty (Prahalad, 2009).

Other experts are determined and are highly optimistic that for an effective social transformation, adaptation of ‘information and communication technology’ (ICT) and technological advancement is inevitable (Carayannis et al, 2005). This very evidence supports

the concept of uplifting the economic conditions of under-developed economics by accelerating them through application of technological innovations, resulting in expansion of their knowledge domain.

It is not possible that the monetary 'aid' from developed countries alone can solve the issue. In fact, we need to bring innovations to empower these people to become independent through micro level improvements. We need to understand how to create shared value.

By that process we will be providing a 'hand up' instead of a 'hand out' to transform the lives of people in the developing or (under-developed) regions of the world.

Chapter 2

Conceptual Framework

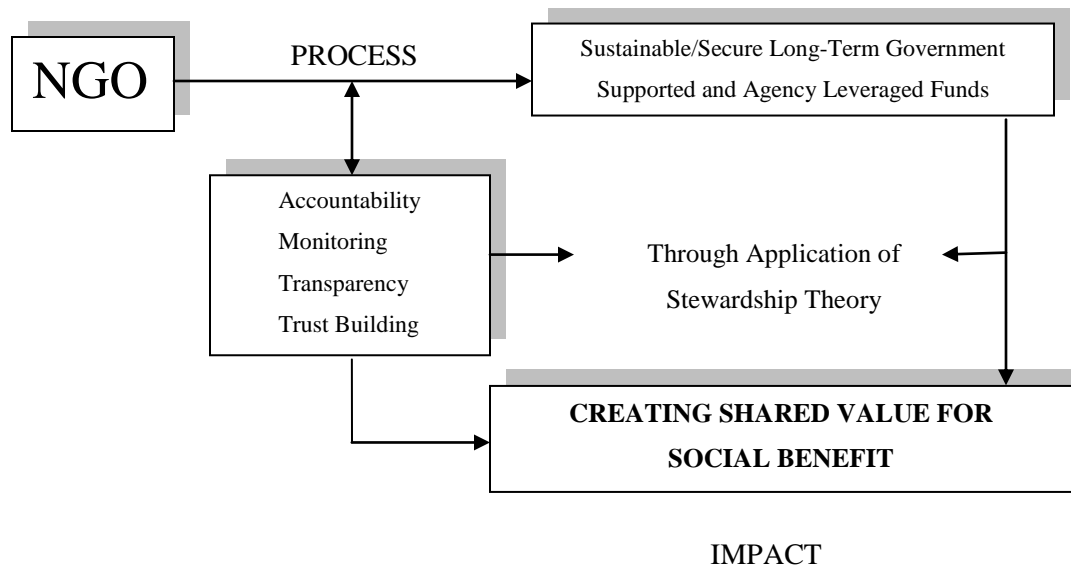
To define a conceptual framework of this thesis, it is required that there should be some logical structuring and understanding of what will be explored and measured in this study. As a continuation of the previous chapter, to support the new line of thinking about bringing societal betterment (to underserved communities) through application of Information and Communication Technologies (ICTs), the collaboration between not-for-profit (NFP) / non-governmental organization (NGOs) and multinational corporations (MNEs) should be encouraged with the aim of creating shared value. The expected results would extend in shape of better social and economic prospects for all stakeholders.

In this section of the thesis, the following macro level structure should be kept in mind at all times:

- Importance of accountability of not-for-profit, non-governmental organizations
- Significance of having multiple level accountability (e.g. internal, external)
- Consequences of creating shared value for social benefit.

The explanation of the above mentioned postulates will elaborate the concept of articulating the value proposition of Digital Opportunity Trust (DOT) in the current climate of operation.

Figure 2: Conceptual Framework of the Study



The above graphical representation of the study’s conceptual framework illustrates the importance of accountability (internal and external) for non-profit, non-governmental organizations. On a general level, accountability becomes an important means to extend funding relationship with donors. These funds then enable the non-profit organizations to carry out their activities towards shared value. The process of creating shared value for the betterment of the community by these not-for-profit, non-governmental organizations is discussed in detail below.

2.1 Understanding of the Accountability Framework

In some cases, not-for-profit (NFP) / non-governmental organizations (NGOs) are believed to be under pressure for being accountable to multiple stakeholders. That is because this notion is important to all NFP / NGOs due to the funding insecurity for their future projects and programs. Since more emphasis is now being laid on delegating social projects to NFP / NGOs by governments; a further pressure is now being exerted on these organizations to maintain highest levels of transparency (Keams, 1996; Boris & Williams, 1998; Salamon, 2000).

Accountability for non-profit management is a subjective term and lacks a clear definition (Ebrahim, 2003). However, Edwards and Hulme (1996) have tried defining accountability in

conceptual and complex terms as “the means by which individuals and organizations report to a recognized authority (or authorities) and are responsible for their actions”. In general, it may also be defined as “a means through which individuals and organizations are held responsible for their actions (e.g., through legal obligations and explicit reporting and disclosure requirements), but also as a means by which organizations and individuals take internal responsibility for shaping their organization’s mission and values, for opening themselves to public or external scrutiny, and for assessing performance in relation to goals” (Ebrahim, 2003). In the recent years, there has been an outcry and exertion of pressure on the governments by the public and civil society to hold the corporations and NGOs accountable for their operations under the name of Corporate Social Responsibility (CSR). In the past, there have been numerous instances in which headlines were made in professional periodicals and newspapers about the scandals of non-profit organizations (Kearns, 1996). This stresses the importance of accountability of non-profit, non-governmental sector in general.

With this background, it makes perfect sense to have this phenomenon applied in a framework, such as principal-agent theory / framework. According to Puyvelde, Caers, Bois and Jegers (2011), for analyzing the relationship between non-profit, non-governmental organization actors, the principal-agent relationship seems apposite.

Jensen and Meckling (1976) has defined principal-agency framework as a convention according to which one or more persons or parties can appoint another person or party, with the delegation of decision making authority to carry out services on their behalf. However, confusion arises as to what is meant by authorities in the non-government and non-profit management domain. According to Anheier (2005), Brody (1996), Miller (2002), Ostrower and Stone (2006), it is ambiguous whom to regard as the principal in non-profit organizations. For instance, who will act as a principal? Who will be the agent? The conclusion by Steinberg (2010) about the application of principal-agent theory for non-profit, non-governmental organizations suggests that multiple principals exists which makes it difficult for the application of agency theory to resolve the accountability issues. These multiple agents have their own objectives which may differ from the overall objective of the non-profit organization. Hence, Puyvelde, Caers, Bois and Jegers (2011) have argued and suggested to apply stakeholder and stewardship theories.

According to the Pontes (1995), Sundaramurthy and Lewis (2003), in agency theory, there is a conflict of interest between the agent and the principal. It is more likely that the agent will have his/her own objectives to practice. For instance, a company owner (principal) hires a tax consultant (agent) to take care of his/her taxation obligations. Besides this example, similar arrangements can be made at the organizational level (Caers, et al, 2006).

Prior research has determined that in a case of no control on the agent by the principal, it is more likely that the principal's goals fall short (Caers et al, 2006). To deal with this situation, if the principal exerts more controlling pressure on the agent, there might be less innovation expected which results in low level commitment from that agent.

To deal with this phenomenon, stewardship theory has been proposed as an alternative to agency theory by Davis et al (1997). Stewardship theory assumes that the agent is internally motivated to act for the benefit of the principal and their goals are perfectly aligned with those of principals (Caers et al, 2006; Sundaramurthy & Lewis, 2003). It is also advocated that stewardship theory is more of a limiting case of agency theory (Caers et al, 2006). By keeping this in mind, for an optimal function of an NFP / NGO, stewardship theory may help overcome the conflict between the principal and the agent.

From the perspective of the donor, when they know that their donation and reputation are in safe hands, they will be more willing to continue donating to such initiatives. This can be achieved by celebrating strong integration among self-motivated workers of the organizations. The above discussion basically converges to the point that accountability of NFP / NGOs can be done through understanding the principal-agent framework and by applying stewardship theory to ensure trust building of these organizations in the society. This instills confidence in the transparency standards of the non-profit, non-governmental organizations.

2.2 Existence of Multiple Levels of Accountability

It is crucial to understand the impact of multiple levels of accountability for NFP / NGO. According to Najam (1996), "NGOs are accountable to multiple actors: to patrons, to clients, and to themselves". These actors are considered to be at different levels to the NGO; for example, Edwards and Hulme (1996) have also referred to multiple actors: "NGO-patron accountability or

‘upward’ accountability usually refers to relationships with donors, foundations, and governments”. This means that these stakeholders are more concerned about spending on particular projects, programs or purposes. Similarly, NGO to client accountability explains the “relationships with groups to whom NGOs provide services” (Najam, 1996), also referred as “downward accountability” (Edwards & Hulme, 1996). The third type, “accountability to themselves” is self-explanatory. It includes the accountability of the whole organization staff. In addition to this an important notion presented by Meyer (1999) suggests that “these multiple and sometimes competing accountabilities can become even more complicated in cases where NGOs enter into contractual relationships with foreign donors, local governments, and multinational corporations”. According to Ospina, Diaz and O’Sullivan (2002), the “traditional definitions of accountability – focused on financial health, internal controls, and regulatory compliance – do not fully capture an organization’s performance. Accountability is also significant for nonprofit organizations if they are to maintain their legitimacy in the eyes of the public. They are dependent on board members, donors, institutional supporters, staff, and volunteers who self-identify with the goals of the organization”.

The above mentioned discussion stresses again the importance of accountability for NFP / NGOs, but at a multiple level and connects it with the funding prospects from the donor bodies (such as governments, agencies, and corporations).

If we refer to the definition of accountability (mentioned above) by Ebrahim (2003), can we safely assume that having internal accountability is equally important as having it externally? The point to be noted here is that when an organization places more emphasis on its internal setup, internal operations, internal accountability and internal goals, the likelihood is that the organization remains in-line with its mission, vision and goals. Prior research also suggests that when an NFP / NGO is awarded an accountability “pass” status, there is a direct positive impact on the donations or contributions received by it (Sloan, 1998).

2.3 Creation of Shared Value in the Society

The above discussion revolves around inputs and the processes that are essential to attain the objectives of a non-for-profit (NFP) / non-governmental organization (NGO), in order to create

further benefits for the people in the community. However, the end result or the goal of these NFP / NGOs is to establish a value system for the betterment of the society. To attain this, multiple domains or areas exist in which these organizations can play their roles. As discussed above, all the operations of the NFP / NGOs have to be funded through funding agencies, such as the governments or corporations (in the name of Corporate Social Responsibility), or through donations from citizens (general public). Let us focus on the funding from corporations for the moment. By keeping in mind one of the major reasons for corporations to make donations to nonprofits is to leverage upon the needs of the community by showcasing their sense of responsibility towards the society. For this cause, corporations support initiatives that uplift the society at many fronts. However, in most instances, the corporations face the problem of assessing the successfulness of their initiatives. They also want to make sure that the donations or resources they put in are all translating into societal benefits. By advocating the concept of ‘creating shared value’ in the system, businesses and the societies could gain together.

According to Porter and Kramer (2011) by ‘creating shared value’, businesses produce what is good for the societies. This way they could benefit more in terms of sustainability and long-term economic benefit. It will also allow the companies or corporations to tap in the markets at the bottom of the pyramid (Prahalad, 2009) and help increase the profit pie rather than sharing the big chunk of it by following corporate social responsibility (CSR) practices (Porter & Kramer, 2011). So, in short, creating shared value is an alternative to the CSR concept of helping the underprivileged masses. To build the case further, the concept of creating shared value enables the corporations to act in the self-interest of their stakeholders by not deciding to put company’s resources randomly on many different causes (Porter & Kramer, 2011).

In this thesis, a further approach to practically implement the concept of creating shared value is discussed. Without the help of nonprofit or non-governmental initiatives that are driven to increase the absorptive capacities of the masses in the world, corporations or companies cannot effectively reach that goal. According to Dahan, Doh, Oetzel and Yaziji (2010), “combining and leveraging relative strengths through collaboration can allow MNEs, NGOs and other non-traditional business partners to each achieve their individual organizational goals more fully”. This approach can help develop several collaborative possibilities among the corporations and

the nonprofit / non-governmental organizations that would leave a sustainable impact on the society. In Figure 2 (given above), the whole process of reaching the creation of shared value is represented. The nonprofit / non-governmental organizations (NGOs) first make sure they have secured funding through various sources. For this reason they improve upon their accountability, monitoring and transparency standards. Both these factors allow them to create a long-lasting impact in the society by creating shared value that benefits all stakeholders.

2.4 Expected Impact in the Domain of Management of Technology

In the light of the above discussion, by articulating (see page 12) the value proposition of Digital Opportunity Trust (DOT), it is expected that this research will complement the already existent literature in the domain of management of technology, which deals with empowerment of the developing world through the use of technology.

Following are some other important benefits that can be extracted from the study:

- Understanding the importance of internal accountability of a technology driven NFP / NGO
- Using this accountability as a means to understand the impact being created or envisioned in the society
- Creating awareness among the corporations and the society about the collaboration with digitally extended initiatives for serving the masses at the bottom of the pyramid (BOP).

The case study of Digital Opportunity Trust (DOT) allows reflection upon various factors that contribute towards creating value in the society.

Chapter 3

Methodology

To better understand the value proposition of Digital Opportunity Trust, a case study methodology is used. The rationale behind adopting this methodology is to realize the unique functions the institution is currently offering to eradicate poverty in the developing countries. Cooley (1930) has explained that case study methodology is suitable to ascertain the knowledge of a small institution, as “every institution holding its own in the world must have a special character and function which explains its power to live. Perhaps the first aim should be to ascertain this character and function, to find out how it appeals to human nature and is enabled to enlist a share of human vitality in its service”.

Furthermore, Queen (1927) describes case study method as, “a technique to examine single situation, persons, groups, or institutions as complex wholes in order to identify types and processes”. This methodology requires a mix of both quantitative and qualitative techniques. However, for qualitative data gathering informal methodology (such as open ended interviews) should be implemented (Jocher, 1928). This mode of research methodology has been in place for many decades with all its benefits in exploratory studies. Some have also questioned its objectivity to the case. According to Chapin (1919), “true scientific objectivity comes when qualitative terms are reduced to the quantitative”. The process of data gathering through open-ended interviews helps in defining objective and accurate questions for developing a survey instrument. Its purpose is then, to quantify the facts and help analyze the results in an objective manner. Becker (1970) supports the idea of case study by “understanding the groups under study and to develop a general theoretical statements about regularities in social structure and process”. Similarly, Simons (1980) suggests that “case studies will often be the preferred method of research because they may be epistemologically in harmony with the reader’s experience and thus to that person a natural basis for generalization”. A brief background of this technique helps in grounding case study methodology as one of the most effective and relevant techniques to understand a well defined problem.

The purpose of putting forward succinct background literature about case study methodology is to highlight its strengths and vast applicability in the social science domain. However, by analyzing the recent developments in this type of study (through examining literature presented in past few decades), we can present a more holistic view about the usefulness of this methodology in articulating the value proposition of Digital Opportunity Trust (DOT).

According to Yin (1984), for example, case study is “an empirical inquiry that investigates a contemporary phenomenon and context, especially when the boundaries between phenomenon and context are not clearly evident. It can be used in the following settings:

- Policy, political science, and public administration research
- Community psychology and sociology
- Organizational and management studies
- City and regional planning research, such as studies of plans, neighborhoods, or public agencies
- The conduct of large proportion of dissertation and theses in the social sciences”.

Generally, cases are distinguished between three types; exploratory, descriptive, and explanatory (Yin, 1984). Most commonly, exploratory type of case studies are used in business / management related domains (Gummesson, 2000). Similarly, Miles and Huberman (1994) defined case study as “a phenomenon of some sort occurring in a bounded context”. On the basis of these definitions, we can lay the foundation of adopting case study methodology, as there are limited respondents who can be interviewed and it qualifies as a feature of the bounded system. By further defining the notion of ‘bounded system’, it is easier to find relevance of case study methodology with this type of research, as Creswell (1998) puts it, “the bounded system is bounded by time and place, and it is the case being studied – a program, an event, an activity, or individuals.” All of this is pertinent and important to the concept of articulating the value proposition of Digital Opportunity Trust (DOT). To achieve this objective, we next look at propositions that need to be defined for the case study.

3.1 Rationalizing Propositions

The main advantage of adopting case study methodology is that it allows us to deal with the ‘how’ and ‘why’ research questions and maintains a focus on contemporary events (Yin, 1984). It also helps to gain in-depth understanding of the state of affairs and connotation for those involved. It further allows having a “direct influence on the policy, practice, and opens prospects for future research” (Merriam, 1998).

However, as mentioned earlier in this chapter, coupling qualitative methodology with quantitative research allows better prospects and results of the study. According to Lupo et al (1971), conducting surveys alone is not enough when the purpose is to seek success of the community (in this case, an organization). A better approach would be to conduct and analyze a case study and then pose a confirmatory study through surveys, for example.

When it comes to data analysis, Merriam (1998) suggests that there are no particular methods for collecting or analyzing the data, “all methods, from testing to interviewing can be used in a case study”. This allows us to base our research by using different techniques such as exploration of the subject through structured interviews, and then performing confirmatory study by using web-based surveys.

The underlying propositions for this study would be:

P1: To explore the articulation of an NGO / NFP value proposition

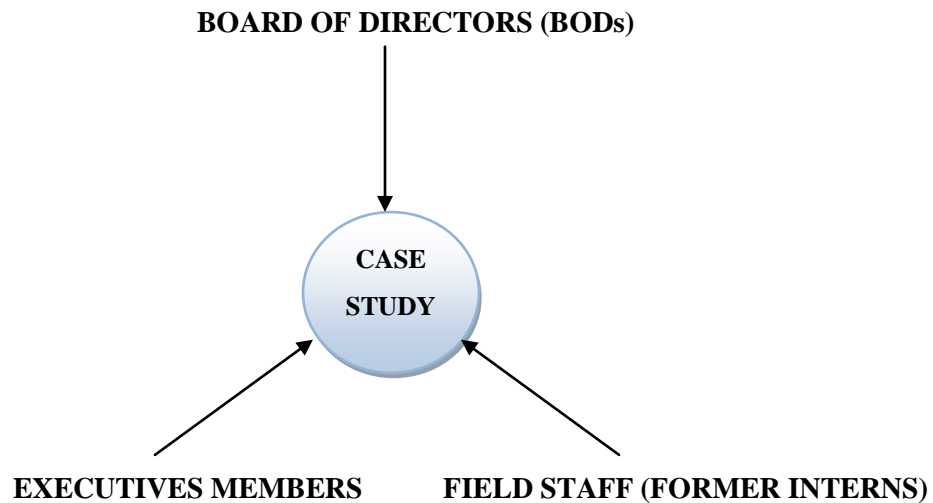
P2: To explore how DOT is creating value in societies

P3: To articulate the most important value differentiators of DOT

P4: An approach to test readiness of corporations towards community benefit.

Since there is a mix of qualitative and quantitative analysis, case study methodology would require ‘triangulation’ (Yin, 1984) as means of confirmation from multiple sources (to substantiate and measure), by conducting personal interviews with the DOT’s members of the board of directors, executives, interns and contractors (as displayed in Figure 3).

Figure 3: Triangulation Through Multiple Sources of Data

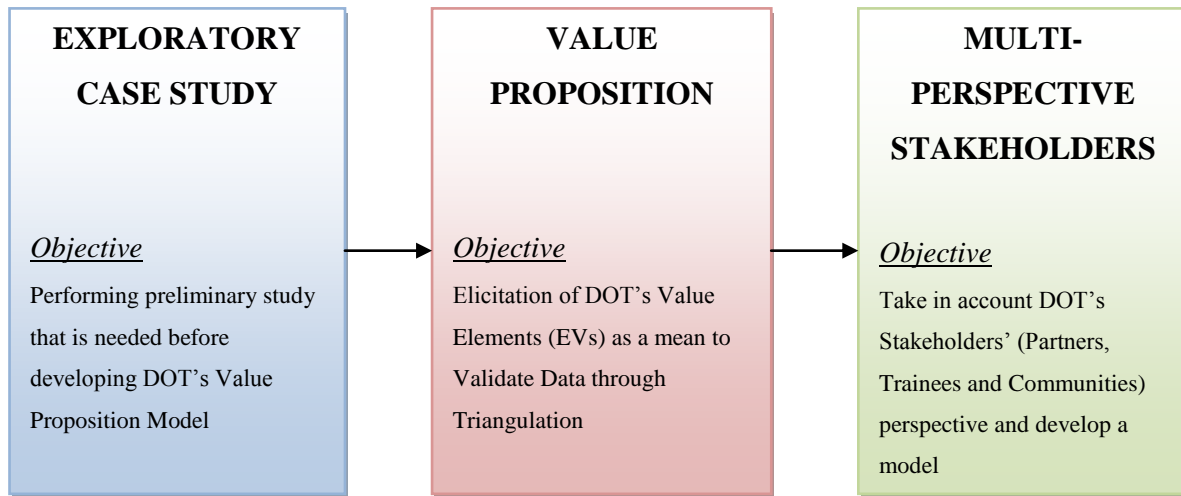


Furthermore, the case study methodology allows us to address multifaceted social trends that are essential to outline the contained attributes to better understand the issue. The assimilation of evidences through multiple sources (as mentioned above) helps gather insightful information to characterize DOT's value proposition scientifically.

3.2 Developing the Case Study of DOT

In light of the above discussion, the following structure is adopted to achieve the objective of articulating DOT's value proposition:

Figure 4: Overview of Process of Articulating DOT's Value Proposition

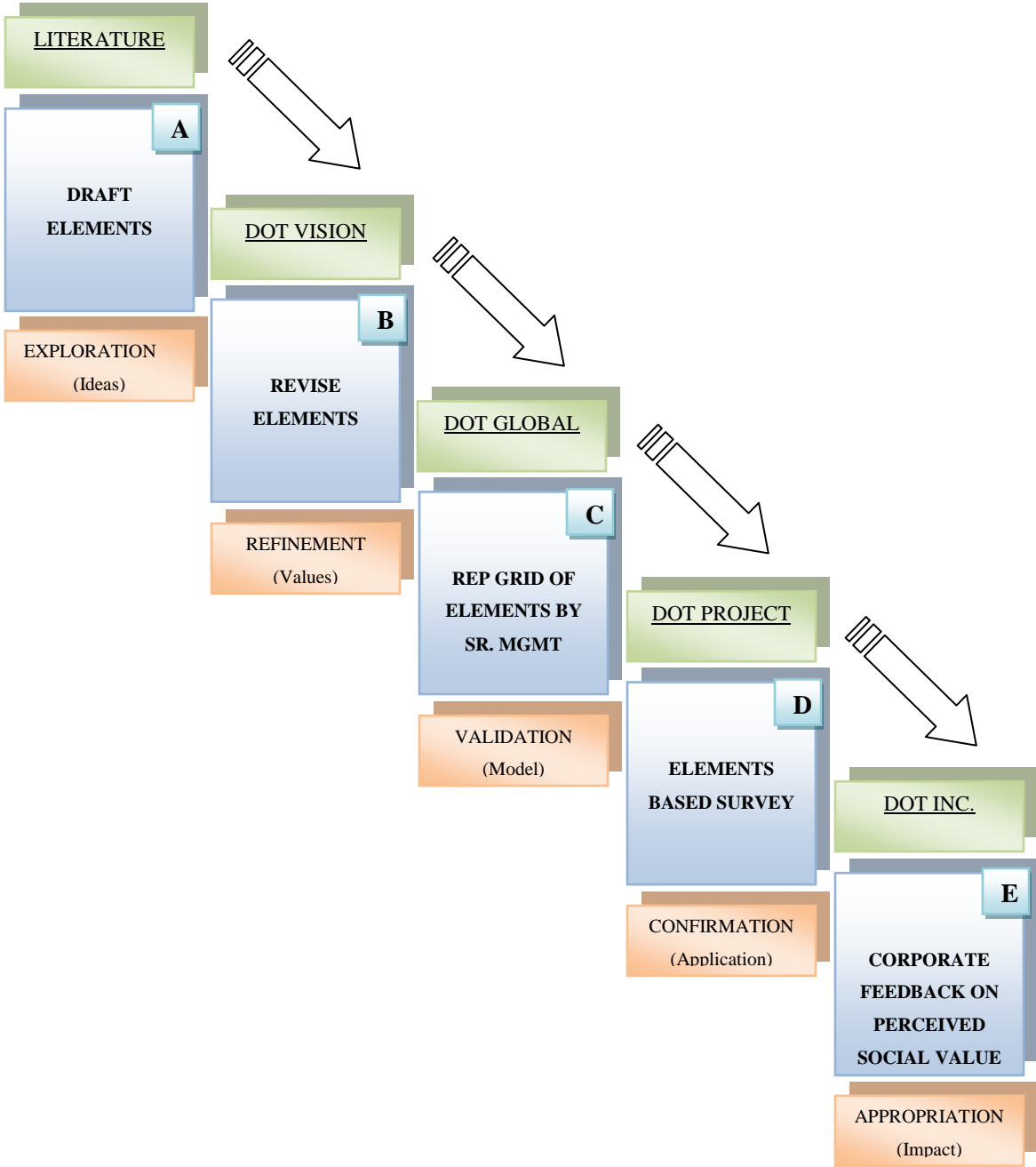


As shown in Figure 4 (mentioned above), exploratory case study methodology comes prior to defining the value proposition of DOT. To understand this mode of study, an excerpt has been taken from Tellis' (1997) work, which suggests that:

“In exploratory case studies, fieldwork, and data collection may be undertaken prior to definition of the research questions and hypotheses. This type of study has been considered as a prelude to some social research. However, the framework of the study must be created ahead of time. Pilot projects are very useful in determining the final protocols that will be used. Survey questions may be dropped or added based on the outcome of the pilot study”.

Exploratory studies develop a foundation for conducting extensive empirical analyses of larger data sets, and to perform confirmation in the later stages. In order to underpin the value proposition of DOT for Creation of Social Values, a logical process of data collection (analysis) is used, that is also shown in the Figure 5 (below):

Figure 5: Structure for Developing DOT's Case Study



3.2.1 Stage A (Exploration) - Draft the Elements

Through literature on Models Entrepreneurship for Developing Economies, an initial twenty (20) elements were outlined. At the outset the idea was to identify ten to twenty (10 – 20) elements of DOT value proposition based on our thinking on the poster (Appendix A), designed to develop a framework to suit the purpose of drafting “The Value Proposition of DOT”.

Through careful study of the literature, the potential value statements for DOT were written on separate pieces of paper (1/4th of an 8 ½ x 11) so that they could be used as elements in a Repertory Grid analysis, as referred as ‘Rep Grid’ with the senior DOT executives.

Rep Grid technique explains the system of personal constructs, proposed by Kelly (1955) to elicit experts’ knowledge, especially in social science domain. The individuals’ viewpoints are then collected to devise further deeper probing (research) instruments that ensure the objectivity of the results obtained.

To frame the model that defines the value proposition of DOT, the Rep Grid approach seems appropriate and objective. The initial phase of eliciting personal constructs of the DOT senior members helped in gathering information on how the organization perceives the notion of ‘value’ in terms of their own individual thinking by using unique jargon. In other words, as described by Kelly (1970), use of this Repertory Grid technique maps the cognitive process of an individual and describes their thinking about a particular phenomenon.

The format of the elements was to give ‘value statement’ headlines, followed by a bullet expansion of the point (Appendix B).

The literature on Models Entrepreneurship for Developing Economies helped achieve the primary objective of exploring the impact of technology-based entrepreneurship, especially in digital opportunity initiatives, in the developing (or under-developed) regions of the world. The model seeks to understand how, and to what extent benefits are derived from initiatives driven to help reduce poverty, and to achieve greater social and economic stability by empowering people with skills and knowledge through utilizing new technologies in their communities.

As a secondary objective, the literature established a foundation for a research case study of “Digital Opportunity Trust (DOT)” -- a not-for-profit (NFP) / non-governmental organization (NGO) which strives to accomplish similar goals by blending ‘entrepreneurial’ education with ‘corporate social responsibility’ to foster new ventures that use digital communications technology to ‘create shared value’ in the system. The case study research plan helped in validating and evaluating the extent to which Information and Communication Technologies (ICTs) allows people living in poor communities to exchange knowledge, and to compete with new enterprise.

In order to attain our objective of making the element statements simple and understandable to the Rep Grid respondents, the outlined twenty (20) elements were exposed to a group of eight (8) researchers from Institute for Innovation Research, University of Waterloo (IIR). Members were asked to give their feedback on each element’s clarity and importance (Appendix C). On their recommendations, some statements were revised and included examples along with the statements. (Appendix D).

3.2.2 Stage B (Refinement) - Revise Elements

The next step was to obtain DOT Executive’s viewpoint on the elements drafted. Through some e-mail exchanges, the feedback was gathered that helped us move forward to investigate and scrutinize the value proposition of DOT. The basic purpose of framing some of the factors, variables and considerations in a value proposition was that DOT staff might provide additional information to fill in the details.

Through this exercise the following objectives were attained:

- What elements are missing from the list
- Which (if any) elements should be dropped from the list
- Which elements should be modified and how
- How to rank order the elements in terms of their centrality to the DOT Value Proposition.

An iterative process helped us finalize a set of twenty-four (24) elements (Table 1) to be used for the Rep Grid activity. Four (4) elements were dropped during the process as they were not closely tied in to the value proposition of DOT, according to the DOT executive members. However, eight (8) new elements were also added (Table 1). The actual format of these elements is shown in Appendix E.

The purpose of performing this process was to make DOT staff comfortable with the terminology, applicability and relevance of those elements during the Rep Grid activity. This was important to ensure an objective, well defined and scientific survey instrument for the DOT staff (initially sent out to DOT former interns). As mentioned before, in an exploratory case study methodology, it is important to test your propositions through different sources for validation purposes. This activity assisted in obtaining the objective to understand DOT’s value proposition through sources, such as DOT board members, top executives and former interns.

As shown in the Figure 5, through a refinement process, a set of DOT values was outlined that enabled us to architect the framework to proceed with the Rep Grid session.

Table 1: ‘Value Element’ Headlines With Bullet Point Expansion

VALUE STATEMENT HEADLINES	EXPANSION POINTS
<p>1. Use established technologies to the benefit of developing economies</p>	<p><i>Connect people to these environments and build local confidence to develop local apps e.g., Mobile</i></p>
<p>2. Today’s technologies are realizing a global village by emphasizing shared aspects of humankind while downplaying differences</p>	<p><i>Build empathy and mutual respect to overcome socio-economic disparities and inequities of human conditions, such as by promoting effective use of technologies by all races, genders, without any ethnic divide</i></p>
<p>3. Celebrate how free market</p>	<p><i>Create the capacity in people to devise their own ways within their</i></p>

<i>enterprise</i> can produce increased quality-of-life	<i>communities and within a spirit of social justice</i>
4. Exploit digital technologies to underpin novel forms of enterprise in marginalized economies	<i>Create the knowledge and confidence conditions within which beneficiaries “discover possibilities”</i>
5. Recognize that all individuals have the <i>right to participate as global citizens</i> regardless of their nation states	<i>Create the self-confidence and courage in people to participate using technology in a global society and marketplace</i>
6. Empower people with the abilities to identify <i>new opportunities</i> for enterprise	<i>As stated long ago, instead of giving a fish to a hungry person, teach the person to fish and thereby feed that person for life, a push toward self-sustaining</i>
7. Help develop a creativity to <i>nurture human capital</i> in developing regions of the world	<i>Recognize that these are growing markets, worthy of investment</i>
8. Encourage individuals to build local entrepreneurial ventures through <i>holistic training</i>	<i>Build confidence in basic, latent capabilities, but use technology to amplify</i>
9. Foster <i>entrepreneurial creativity and market innovation</i> to influence economic growth	<i>Combine to help reduce poverty through low-end capitalism and micro enterprise entrepreneurship</i>
10. Provide entrepreneurial training to increase <i>micro-enterprise</i> success	<i>Improve success rate in micro-financed enterprise by providing up-front training</i>
11. Encourage the formation of local social enterprises	<i>Build a culture of social responsibility</i>
12. Improve the rate of <i>formation</i> of new enterprises	<i>Initiation rate (at 0 to 1 year stage) of small- to medium-sized enterprises, contributing to economic growth (ReachUp!)</i>
13. Improve the rate of <i>survival</i> of	<i>Survival rate (at 1 to 3 year stage)</i>

new enterprises	<i>of small- to medium-sized enterprises, contributing to economic growth (StartUp!)</i>
14. Assist by improving the rate of growth of new enterprises	<i>Growth rate (at 3 to 5 year stage) of small- to medium-sized enterprises, contributing to economic growth (ScaleUp!)</i>
15. Leverage corporate sponsorship with government funding (and vice versa)	<i>Generate multiplier effects (2x?) for extension of funding awarded to DOT Global</i>
16. Infuse Canadian funding into ventures in growing economies	<i>Generate multiplier effects (5x?) by buying power of CDN\$ infused into emerging economies</i>
17. Enable actualized human potential among entrepreneurial-minded individuals in emerging economies	<i>Generate multiplier effects (10x?) that arise from sparking innovation in communities</i>
18. Bottom up construction of knowledge , sharing and collective intelligence	<i>By applying ICT techniques, such as Web2.0 technologies, application, and services, that allow people to become producers, contributors, and creators of information and knowledge rather than just consumers</i>
19. Employ and promote co-learning pedagogies , which take advantage of ICT	<i>The richness of multiculturalism encourages multiple digital practices e.g., blogging</i>
20. Help reduce poverty by giving all people the skills and knowledge	<i>Foster use of technology to achieve educational, social and economic opportunity</i>
21. Help eliminate prejudice by giving all people the skills and knowledge	<i>Foster use of technology to achieve educational, social and economic opportunities</i>

<p>22. Help eliminate gender inequality by giving all people the skills and knowledge</p>	<p><i>Foster use of technology to achieve educational, social and economic opportunities</i></p>
<p>23. Create global networks of talented, energetic young leaders who make real change by educating their communities</p>	<p><i>Train young leaders who will educate their communities to apply technology effectively to real life</i></p>
<p>24. Excite students to embrace learning and become engaged so as to improve educational outcomes</p>	<p><i>Help teachers to integrate technology into the classroom, to train young people to work in the digital world</i></p>

Source: Developed through the literature on Models Entrepreneurship for Developing Economies and then refined with the help of DOT senior executives

3.2.3 Stage C (Validation) – Rep Grid of Elements by Senior Management

The next step after refining the elements through an iterative process with the executive members of DOT was to elicit expert knowledge about the value proposition of DOT. Main objective behind conducting this activity was to develop a survey that could be extended to the DOT former interns for validating the results.

For this purpose, a trip to ‘DOT House’ (Ottawa) was made to gather information from the senior DOT board members and stationed executives. Due to the limitation of time, only seven (7) interviews were arranged. The following interview protocol was observed throughout the visit:

- Explain the purpose and procedure briefly
- Obtain informed consent
- Pose the initial open-ended questions
- Carry out perceived differentiation among the elements activity

- Perform Rep Grid using applicable elements
- Thank the participant and debrief.

The final twenty-four (24) elements (Appendix E) were used in this interview session. The protocol included explanation of the purpose of the study to the respondents and briefly outlining the interview procedure, followed by obtaining informed consent for their participation. The structured interview began by posing three open-ended questions to each respondent in order to highlight some distinguished characteristics of the value proposition of DOT. It was then followed by perceived differentiation among the elements on two-dimensional 3x4 Matrix (Appendix F). As the last step, Rep Grid session was conducted to elicit expert opinions (constructs) about the value proposition of DOT.

3.2.3.1 Initial Open-Ended Questions

After obtaining the informed consent from the senior DOT staff members at the head office, following three open-ended questions were posed:

- a) In comparison to other related NGOs what are the three most important differentiators of DOT's value proposition?
- b) What are three areas of value DOT can improve on today?
- c) In 10 years time, how DOT's value proposition might have changed?

One of the primary reasons to ask open ended questions at the initial stage was to help respondents feel comfortable before driving them in the Rep Grid activity. Answers to these questions also helped gaining insights about how DOT 'experts' perceive DOT's value proposition.

3.2.3.2 Perceived Differentiation among the Element

The process allowed the interviewees to organize the drawn elements (written on 1/4th of an 8 1/2 x 11 paper sheets) on a two-dimensional 3x4 matrix with 'inputs-process-outcome-impact' dimension on y-axis (Appendix F) and 'degrees of applicability' on x-axis (Appendix G). The

placement of elements on the two-dimensional matrix compares the importance of each element in terms of its present knowledge and future directions of the organization.

The ‘input-process-outcome’ dimension is based on the theory presented by Kozlowski et al (1999) that defines the interactions of teams in context of external environments. However, the additional ‘impact’ dimension describes the output at time t+1 (higher degree than output) to clearly obtain the perceived differentiation among the elements. Based on each interviewee’s personal knowledge, the elements are ranked simultaneously in degrees of applicability (such as ‘not applicable’, ‘somewhat applicable’ or ‘highly applicable’ categories) to better define the value proposition of DOT.

3.2.3.3 Repertory Grid Using Applicable Elements

The short-listed elements (Table 1) gathered with the consent of DOT’s senior executives were used in the Rep Grid activity for expert knowledge elicitation, also known as the ‘personal constructs’. The personal constructs (expert’s opinions) allowed characterizing the main defining attributes for outlining the survey instrument to accurately address the value proposition of DOT. According to Tan and Hunter (2002), this Rep Grid Technique improves all stakeholders’ understanding about a particular issue.

According to Daniels et al. (1995), the Rep Grid technique is used to obtain “mental models”, which eventually allows categorizing things in organizations from employees’ personal perspectives. Tan and Hunter (2002) advocate that answer to organizational matters are obtained when members of the staff construe or take in account events that transpire around them.

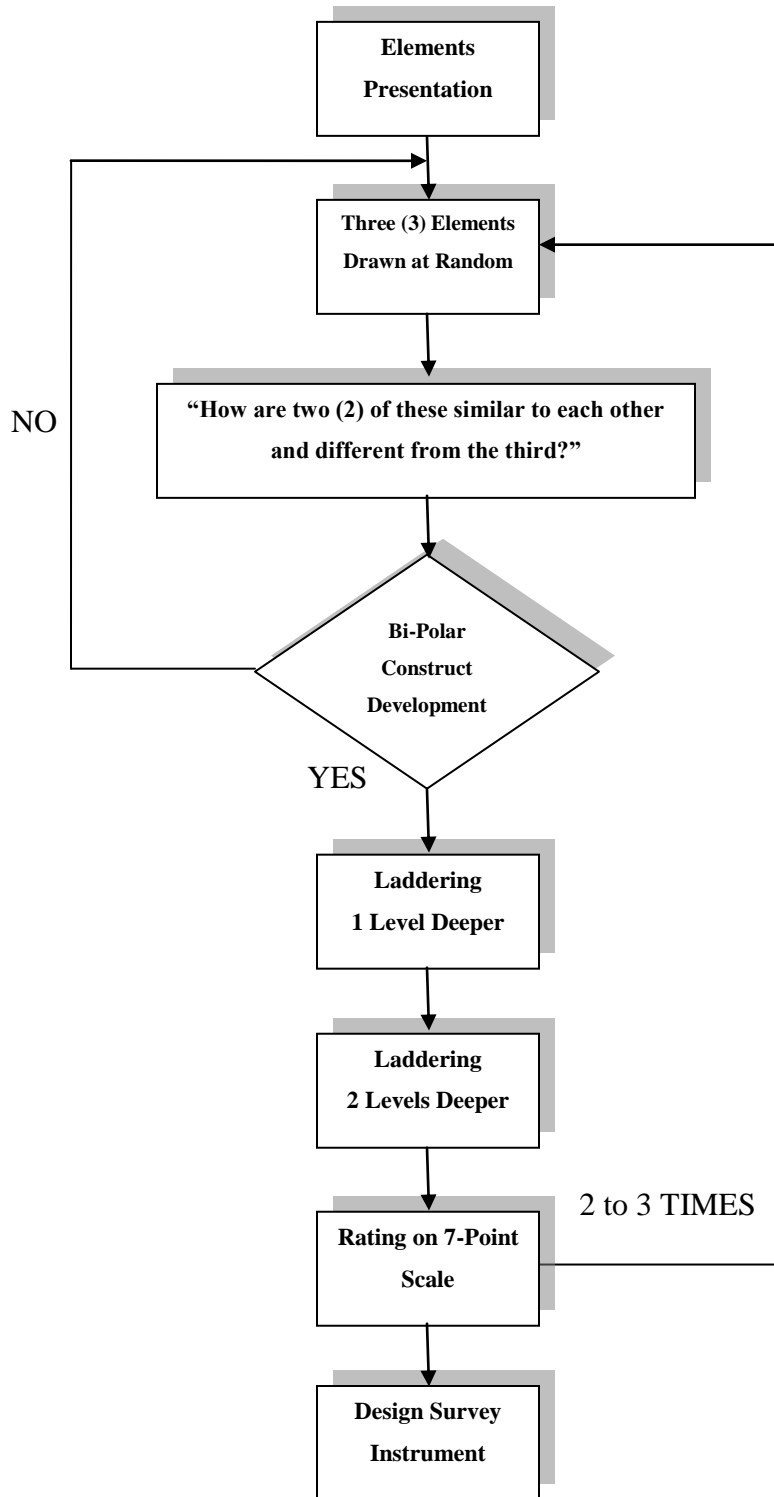
From the study conducted by Jelinek and Litterer (1994), individuals who list their experiences and knowledge, named as “cognition”, express their thinking process, which paves the way for providing strong basis for understanding the organization performing in different paradigms. Simpson and Wilson (1999) believe that these personal constructs or “individual cognitions”, in reality add to the organization’s better understanding. A similar notion is explained by Weick (2001) that suggests that in order to grasp an organization’s pattern of thinking, one should study or explore the individual’s (employees) style of thinking.

In this case, the procedures required in Rep Grid activity helps in exposing personal constructs to organize relevant information from the senior staff members to interpret the value proposition of DOT.

3.2.3.4 Repertory Grid Procedure

For the Rep Grid activity, two components are essential. The first one is “elements”, which illustrates the items that are used to develop the grids; the second is “constructs”, which allows the respondents to differentiate and group together the elements drawn at random (Easterby-Smith, et al 1996). This process flowchart describes the procedure of how Rep Grid session was conducted with the DOT senior executives:

Figure 6: Process Flow Chart for Rep Grid Sessions



After posing initial open ended questions to the senior DOT executives, the final twenty-four (24) elements, written on 1/4th of an 8 1/2 x 11 paper sheets were presented on the table top. At the same time a computer monitor screen was used to show the working of Rep Grid to the respondents.

The Rep Grid application drew three (3) elements at random and the respondents were asked in what ways two (2) of the elements were similar to each other but different from the third, keeping in mind their understanding about the value proposition of DOT.

Once they had identified the elements that are similar and different from the third, they were asked to apply a name to the dimension or the construct they had in mind, which should be bipolar, and best describe the differentiating factor between the two dimensions of the same construct. In other words they were asked to come up with words that separate triads into dyads.

The procedure of ‘laddering’ down two levels was adopted in order to understand the rationale behind developing a construct. Questions like, “Please state why do you think this particular construct is important in articulating the value proposition of DOT” were asked to the respondents to list down constructs by observing the thinking pattern of the experts.

The respondents were then asked to rate all remaining elements on a 7-point continuum. This process is followed by an activity to think of two extreme words defining each pole of the construct (each pole anchored as an extreme, i.e. 1 being one extreme and 7 being the other).

The same practice was repeated until all the elements were exhausted. The Rep Grid process took almost forty-five (45) minutes of the respondent’s time.

This methodology was adopted with a purpose to elicit personal constructs of the experts (through conducting structured interviews with DOT’s senior executives), which can be further used to develop an online survey instrument. The initial plan was to extend this exploratory study to all DOT contractors, former interns and executives in different parts of the world, however, to validate the procedure and due to time constraint, it has been limited to DOT former interns in the African and American regions. It was estimated that the full evaluation, using multiple respondent types, could take 6 – 12 months. This will be done at a later time.

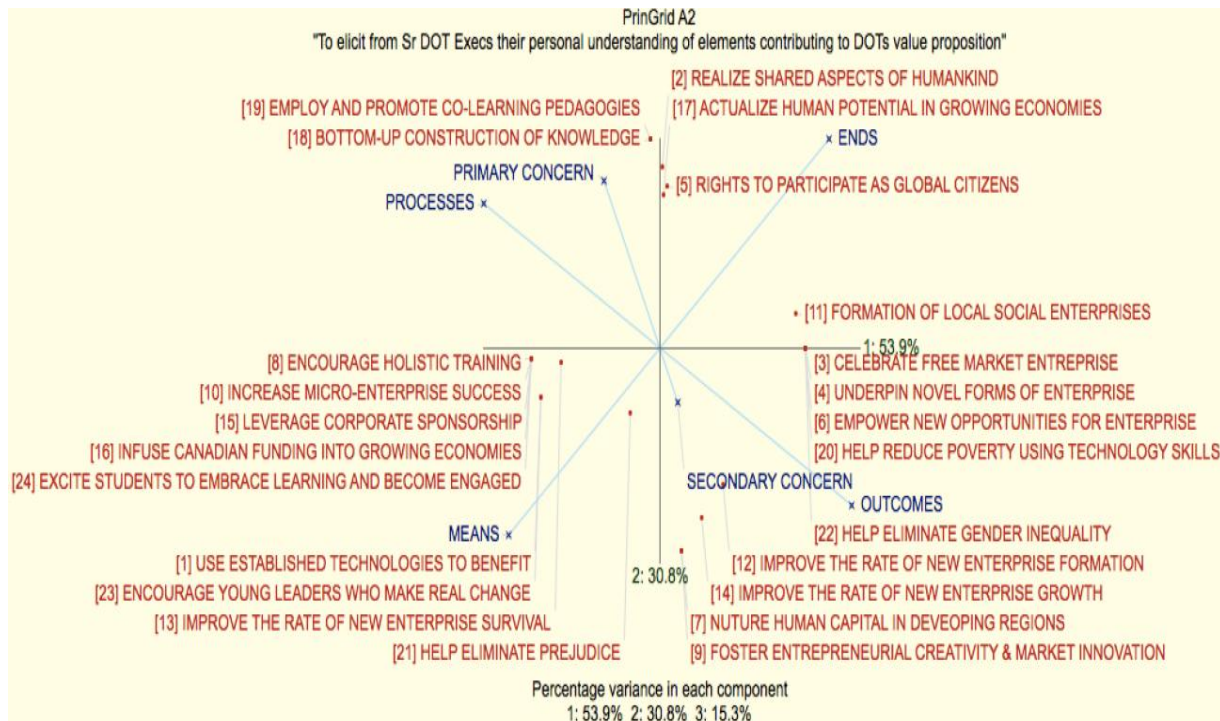
3.2.3.5 An Example to Illustrate Rep Grid Process Results

The involvement of the Senior DOT executives in the interview sessions had assurance provided to the participants that no impact on their relationship with DOT would occur, regarding their performance, or position within the organization. Participants were not aware of who had decided to take part in the study. Full confidentiality and anonymity of identity was guaranteed for all the information the respondents had provided.

Each step involving human participation was reviewed and received full ethics clearance from the Office of Research Ethics (ORE – University of Waterloo).

For a better illustration of the Rep Grid activity, let us examine the output from the Rep Grid (Version 5) tool given below:

Figure 7: Principal Component Analysis (PCA) Graph Using Rep Grid Tool

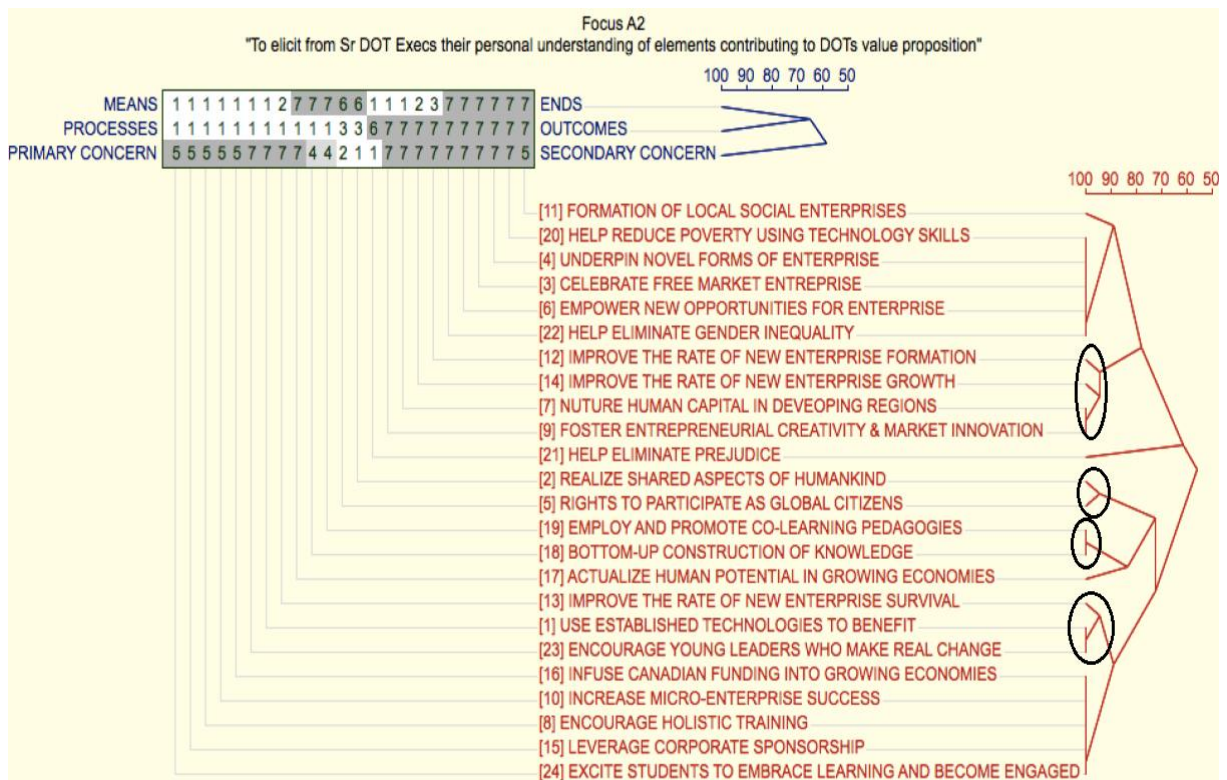


From the above given graph, by keeping the percentage variance in view, the following results are inferred:

- This respondent has high cognitive complexity as the Principal Component Analysis (PCA) graph is well spread out
- Elements number 19 and 18 use the same ‘constructs’ to make them similar to each other (for this respondent) in upper left quadrant of the graph
- Constructs such as “Primary Concern” and “Processes”, help us discriminate with other constructs mentioned in the graph.

Similarly, the following output explains the relationship between constructs and elements:

Figure 8: Relationship Between Elements and Constructs



The given figure shows us the relationship between different elements (Red) and explains how closely they are related to each other according to the participants. Most closely related elements are encircled in the figure above. Similarly, this figure also provides a summary of ‘constructs’ (Blue) and illustrates the relationship between them.

For instance, elements [2, 5], [19, 18], and [1, 13, 23] are closely associated together. And constructs [Means/Ends and Processes/Outcomes] are much closer to each other.

Through the analysis of the above mentioned Figures 7 and 8 for each individual, an idea about the thinking pattern becomes evident and helps in classifying the elements into various sections, which helped develop a structure for the survey instrument.

3.2.3.6 Socio Grid Analysis

The previous figures showed graph for a single participant. To examine the Principal Component Analysis (PCA) and Relationship Graphs of all respondent together, the SOCIO GRID technique was used. The procedure to interpret the Rep Grid outputs remains the same; however, according to Shaw and Pope (1981), this SOCIO GRID technique is “based on an assumption rooted in Kelly’s commonality corollary that there may be areas of shared meaning among any group of individuals”. SOCIO GRID is a technique used to examine the cognitive mapping of all respondents on a single graph (as seen below).

According to Shaw (1981), if a proposed research study fulfils the following criteria, then it is appropriate to apply SOCIO GRID technique for data analysis:

- “If the elements are physical entities or shared experience, both participants are likely to be able to construe them without difficulty
- Personal constructs are then elicited individually, resulting in two grids with the same elements but each with different constructs
- As the two grids have the same elements but different constructs they may be combined and treated as one grid, the first n constructs being from Person A and constructs $n+1, \dots, N$ from Person B

- By matching each of the rating patterns of the constructs from Grid A in turn with each of the constructs in Grid B, a measure of the extent of similarity between the two grids can be established”
- Similarity between constructs is not based upon literal similarity but upon an operational definition of similarity in terms of the ordering of the element set
- For some people slightly different meanings are attributed to almost identical words”.

Clearly, the application of SOCIO GRID seems appropriate in articulating the key sections / areas for developing an effective survey instrument. The following figures show the outputs from SOCIO GRID tool:

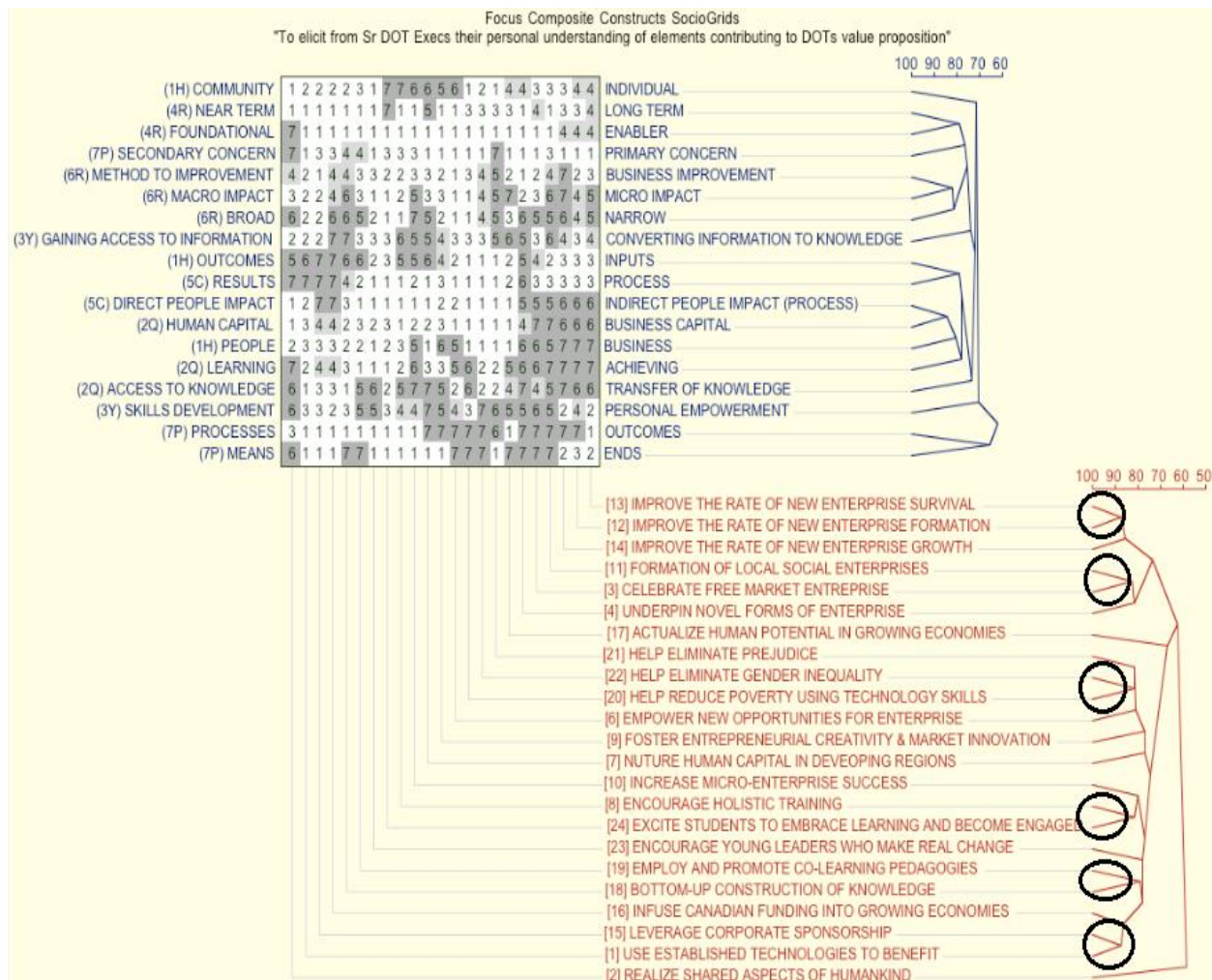
Figure 9: SOCIO GRID Principal Component Analysis (PCA) Graph Using Rep Grid Tool



In Figures 9 and 10, all seven respondent's constructs are mentioned and compared with each other. By running Principal Component Analysis (PCA), we can tell that the constructs help in discriminating among the elements in comparison to other elements. The elements present in each quadrant are similar on the basis of the constructs presented in that quadrant, and are different with other elements in the whole figure.

After looking at the relationship grid between the elements (Red) and constructs (Blue) mentioned below, we can develop relevant sections in the survey instrument to attain the required information from the survey respondents.

Figure 10: SOCIO GRID Relationship Between Elements and Constructs



On the basis of the SOCIO GRID analyses, useful classifications and categories can be located between the elements as discussed below.

3.2.4 Stage D (Confirmation) – Elements Based Survey

Table 2 shows the classification of the elements used in the online survey:

Table 2: Grouping of Constructs Through Rep Grid Elements

CONSTRUCTS	ELEMENTS GROUPED IN EACH QUADRANT (BASED ON THE GIVEN CONSTRUCTS)
QUADRANT 1	
<ul style="list-style-type: none"> • Process • Inputs • Converting information to knowledge • Skills development • Indirect people impact (process) • Narrow • Near Term • Community • Enabler • Business capital • Business • Micro impact 	<ul style="list-style-type: none"> [15] Leverage corporate sponsorship [16] Infuse Canadian funding into growing economies [10] Increase micro-enterprise success [2] Realize shared aspects of humankind [13] Improve the rate of new enterprise survival [14] Improve the rate of new enterprise growth
QUADRANT II	
<ul style="list-style-type: none"> • Processes • Methods to improvement • Means • Primary concern • Access to knowledge • Learning 	<ul style="list-style-type: none"> [1] Use established technologies to benefit [18] Bottom-Up construction of knowledge [19] Employ and promote co-learning pedagogies [8] Encourage holistic training [24] Excite students to embrace learning and become engaged [23] Encourage young leaders who make real change
QUADRANT III	
<ul style="list-style-type: none"> • People • Individual 	<ul style="list-style-type: none"> [21] Help eliminate prejudice [17] Actualize human potential in growing

• Human Capital	economies
• Direct people Impact	[7] Nurture human capital in developing regions
• Broad	
• Macro impact	[22] Help eliminate gender inequality
• Results	[20] Help reduce poverty using technology skills
• Personal empowerment	
• Foundational	[6] Empower new opportunities for enterprise
• Long term	
• Gaining access to information	
• Outcomes	

QUADRANT IV

• Business Improvement	[12] Improve the rate of new enterprise formation
• Achieving	
• Transfer of Knowledge	[4] Underpin novel forms of enterprise
• Secondary Concern	[11] Formation of local social enterprises
• Ends	[3] Celebrate free market enterprise
• Outcomes	[9] Foster entrepreneurial creativity & market innovation

Source: Developed through Principal Component Analysis (PCA) and Relationship Matrix of constructs and elements from SOCIO GRID outputs ¹

Through the experts' (DOT senior executives) knowledge elicitation process, highly correlated or repeated elements (highlighted in bold in the above mentioned table) were identified. The elements (right column) in a specific quadrant of PCA graph are related as they share the same bunch of constructs (left column).

With the help of 'laddering' technique, and principal component analysis, it became easier to develop the structure of an online survey for validation purposes.

Overall the survey instrument was divided into three broad sections (Processes, Inputs, Outcomes) followed by a section on demographic information and posed questions by keeping DOT former interns as potential respondents in mind. The survey is shown in Appendix H.

¹ Shorter versions of elements and assigned numbers in square brackets are used for developing this table

The survey includes forty-two (42) questions about the value proposition of Digital Opportunity Trust (DOT). For this initial exploratory study a sample size of thirty (30) DOT former interns was shortlisted. The results of this study are mentioned in the next chapter.

3.2.5 Stage E (Appropriation) – Corporate Feedback on Perceived Social Value

After validation through survey instrument, the next step is to test the readiness of corporations to contribute to the perceived social value system. A questionnaire with two sets of questions posing twenty-four (24) value elements on a 5 points scale (1 being low and 5 being high) was designed. On one dimension, question about the firm’s readiness toward profit maximization is asked and on the other dimension, question about firm’s readiness towards extending benefit to the community is presented. A sample of the questionnaire and its format is mentioned below; however, the full version is given in Appendix I.

Table 3: Questionnaire Structure to Test Firm’s Readiness About Creating Shared Value

DOT Elements Of Value	Towards Profit to Firm: Value’s potential to contribute to the ability to give priority to increased <i>Economic Benefit</i> (so slice the pie more ways)?					Toward Benefit to Community: Value’s potential to contribute to the ability to give priority to increased <i>Social Benefit</i> (so grow the size of the pie)?								
1	Low	1	2	3	4	5	High	Low	1	2	3	4	5	High

This questionnaire was presented to a group of eight (8) people with some knowledge of Research In Motion (RIM) and some understanding of social value. These participants are involved in the university research initiative by the name Institute of Innovation Research (IIR-UWaterloo) with projects sponsored by RIM.

The purpose of conducting this activity was to test the procedure of presenting the questionnaire to the industry experts in the corporate world, and to be prepared for the ‘confirmation’ of the study as a future research prospect. Results from this study are shared in the next chapter of this thesis.

Chapter 4

Results

4.1 Evidence Trail

To better integrate the research results from all performed stages (Figure 5), including drafting and revising the elements, running Rep Grid methodology with senior DOT executives, translating those outcomes to develop an objective and effective online survey for DOT staff, and a test process for corporate firm's readiness towards creating shared value are discussed.

In order to put the elements (value proposition factors) into a better context, the following evidence trail is adopted.

- I. What was done? Why?
- II. What was learned? How?
- III. What should be revised? How?

Questions I and II involves all five steps (A through E) as mentioned in Figure 5 of the previous chapter. However, there are some recommendations as a part of this exploratory study by emphasizing on the required adjustments or revisions to be made in the proposed methodology for an accurate estimation in the next phase (confirmation) of the study.

In the previous chapter (Methodology), the question of what is being done in each step is conversed in detail. But to understand the learning aspect of these steps and our achievements in terms of proposition testing are discussed below. In other words, its function is to present reasons about why the above mentioned steps are specifically followed and what we have accomplished in terms of articulating DOT's value proposition.

The references made in front of each proposition statement (Table 4) refer to the stages mentioned in Figure 5:

Table 4: Propositions Matched with Methodology Steps

Proposition	Methodology Steps
P1: To explore the articulation of an NGO / NFP value proposition	A (Draft Elements)
	B (Revise Elements)
P2: To explore how DOT is creating value in societies	B (Revise Elements)
	C (Rep Grid)
P3: To articulate the most important value differentiators of DOT	C (Rep Grid)
	D (Survey)
P4: An approach to test readiness of corporations towards community benefit	D(Survey)
	E (Feedback)

4.1.1 To Explore the Articulation of an NGO / NFP Value Proposition

Initially we performed a literature review and drafted twenty-four (24) elements (Appendix B) to find the point of initiation for the project. We also structured the outline for the value factors of DOT (Table 1). Step A thus provided a benchmark for articulating the value proposition of DOT.

This proposition addresses generic attributes of an NGO / NFP working towards bridging digital divide in developing countries through application of Information and Communication Technologies (ICTs). The emphasis has also been made on benefits achieved through entrepreneurship in the developing regions, whether they are social, economic, or developmental.

First draft of value proposition elements are outlines in Appendix B. These elements were exposed to four of DOT's senior board members for modifications and inclusion / exclusion purposes. The objective behind this activity was to make a transition in modifying those generic elements according to DOT's initiatives.

In Step B (revision of elements), Porter's (2011) idea of 'creating shared values' as an alternative to today's problems faced by the corporations and societies all around the world was focused upon. That helped in defining the conceptual framework for this study.

Since this is an exploratory study; the results will help in defining a better survey instrument to test a larger population for confirmation purposes. Perhaps for the next phase, the process could be modified so that the value elements would be outlined according to the regional perspectives as well. Representatives from regional offices would also be included in the feedback process to define a comprehensive survey instrument and then have it floated among the larger population of DOT staff in each region.

There could be two potential benefits drawn from this activity, one could be extended to the donor agencies to gain an insightful perspective of DOT's working in those regions, and the other could be extended to DOT's internal executives to plan their policies optimally.

4.1.2 To Explore How DOT is Creating Value in Societies

Through Step B, the final value proposition elements for DOT are outlined. An example is given below to contrast between the previously developed value elements (VEs) for an NGO / NFP from the literature (Step A) and then revising them with the help of DOT senior executives (Step B). For detailed comparison, refer to Appendix B and E:

Table 5: Comparison between the Drafted and Revised Value Elements (VEs)

STEP A - EXAMPLE OF A DRAFTED ELEMENT (Through literature review)	STEP B - EXAMPLE OF A REVISED ELEMENT (Through interviews with senior DOT Executives)
“Articulate exemplars of how free market enterprise can produce increased quality-of-life”	“Celebrate how <i>free market enterprise</i> can produce increased quality-of-life”
Demonstrate alternatives to financial corruption and privileged entitlement by devising ways to offer “a hand up” and less reliance on “a hand out”	Create the capacity in people to devise their own ways within their communities and within a spirit of social justice

The case study methodology requires validation of responses through various sources. For that purpose a survey instrument was developed to gather information from other DOT Stakeholders.

The results gathered during Step B (revision of elements) and Step C (Rep Grid interviews with senior DOT executives), were used to develop the survey instrument that would be sampled on DOT’s former interns in African and American regions before moving ahead with the next phase of conducting ‘confirmatory study’.

Proper classification, categories or groups in a survey helps in articulating data in a clear and understandable manner. Step B and C were used to develop a sample survey instrument to test the articulation of the value proposition of DOT. The outcome of this process is in Appendix H.

4.1.3 To Articulate the Most Important Value Differentiators of DOT

By following through Step C (Rep Grid Analysis) and Step D (Conducting Elements Based Surveys), we develop an understanding about the key value differentiators of DOT. The final draft of twenty-four (24) value elements (VEs) mentioned in Appendix E, defined the questions for the survey instrument. In order to obtain a more balanced and unbiased survey, we chose to word four (4) statements negatively so as to draw some ‘disagreement’ responses.

In the final survey instrument, we ended up having thirty-eight (38) statements to understand the value proposition of DOT and included four (4) demographic questions to gather as insightful data. In addition to having negative statements incorporated in the survey, we also divided three (3) of the VEs into two questions to avoid any double barreled statements for the respondents.

For recruitment of respondents in sampling of the survey instrument, DOT's field staff in the respective regions extended invitation to participants (DOT former interns), by sending consent letter, and direct volunteer participation to the online survey site (Survey Monkey™). As a part of this exploratory study, about three dozen former interns received the invitation from DOT. A total of twenty-one (21) respondents completed the survey; however, four (4) of these respondents did not answer any questions and because of which we had to eliminate them from the analysis.

The data collected from the seventeen (17) respondents (post data cleansing) helped in addressing proposition 3 (P3) of articulating the most important value differentiators of DOT.

We conducted two level analyses of the collected data. The first analysis was to determine which of the questions and their responses exhibit normal pattern, and for that if you refer to Appendix I, you will see that all questions except 13, 22, 23, and 29 do not exhibit normal properties; their graph is not “mound shaped” or perfectly symmetrical. According to Sharp (1979) and Arsham (1994), in such a circumstance we would apply Chi-Square test. The primary reasons being, most of the responses don't exhibit normal distribution and the data are not continuous, but rather discrete. Secondly, the sample size ($n = 17$) is small.

Chi-Square shows that almost all the questions and responses are perfectly independent as shown in Table 7. However, Questions 13, 22, 23, and 29 exhibited some properties of normal distribution (Appendix J), so we apply t-tests for that which exhibits values as perfectly independent, the p values are high as compared to the remaining questions (whose p values are low) and non-significant.

The analysis is restricted to chi-square and t-test only. The process is discussed below:

- The Likert Scale of 1 to 7 options for each question is transformed to a scale of 1 to 3 options (Agree, Neutral, and Disagree) as given in Appendix K. This is done by

grouping categories ‘Strongly Agree’ and ‘Agree’ together and naming it “AGREE”. Similarly, ‘Strongly Disagree’ and ‘Disagree’ are amalgamated as “DISAGREE” and the middle categories such as, ‘Somewhat Agree’, ‘Neutral’ and ‘Somewhat Disagree’ are grouped together as “NEUTRAL”

- For each question, the normal distribution is tested. One easier way to do this is to take individual responses for each question and plot them to see if they are “mound shaped” as shown in Appendix J
- As a last step, the t-test and chi-square results are reported for each statement.

In order to conduct the chi-square test, for each question two rows, actual and expected are created. Where observed values are the actual frequencies and the expected values are based on our propositions, 80% of the respondents agree and 10% each either disagree or are neutral. To estimate chi-square, we have used excel function “CHITEST” and p value is calculated. A high value of (usually more than 0.05) indicates that the proposition is supported.

For demonstration purposes, the data from Question 2 (DOT uses existing technologies to benefit developing countries) from the survey instrument is mentioned below:

Table 6: Actual vs Transformed Response Scale

STEP 1 - ACTUAL SCALE RESPONSES (1 to 7)

	Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
Frequency	9	6	1	1	0	0	0	0

STEP 2 - TRANSFORMED SCALE (1 to 3)

	Agree	Neutral	Disagree	Total
Response Code	1	2	3	
No. Of Respondents	15	2	0	17
F*x	15	4	0	19
F*(x-mean)^2	0.21	1.56	0	1.76

*Mean = 1.12 (respondents have strongly agreed with the question statements)

For all thirty-eight (38) questions asked in the survey instrument, we calculated their individual means, variances, standard deviations, and standard errors followed by their t-tests / chi-square tests and p-values.

This helps in differentiating between what questions in the survey instrument are related with value proposition of DOT. However, the next step to identify the most important value contributing factors (elements) of DOT would be analyzed using correlation analysis.

Table 7, given below, summarizes the survey data:

Table 7: Data Summary

Questions	Mean	Variance	Std. Dev	Std. Err	t-Values	p-Values	Chi-Square
2	1.12	0.10	0.32	0.08	1.5055	0.0758	0.3873
3	2.59	2.64	1.62	0.39	4.0301	0.0005	0.0000
4	1.13	0.12	0.34	0.09	1.5174	0.0757	0.4107
5	1.18	0.15	0.39	0.09	1.8863	0.0388	0.2584
6	1.12	0.10	0.32	0.08	1.5055	0.0758	0.3873
7	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
8	1.12	0.10	0.32	0.08	1.5055	0.0758	0.3873
9	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
10	1.06	0.06	0.24	0.06	1.0000	0.1661	0.2994
11	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
12	1.24	0.31	0.56	0.14	1.7384	0.0507	0.8382
13	1.93	1.26	1.12	0.29	3.2191	0.0031	0.0000
14	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
15	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
16	1.24	0.31	0.56	0.14	1.7384	0.0507	0.8382
17	1.18	0.27	0.52	0.13	1.4096	0.0889	0.6974
18	1.20	0.17	0.41	0.11	1.8967	0.0393	0.2366
19	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
20	1.47	0.37	0.61	0.16	2.9685	0.0051	0.0000
21	2.94	3.37	1.84	0.46	4.2214	0.0004	0.0000
22	1.71	0.70	0.84	0.22	3.1877	0.0036	0.0000
23	1.79	0.90	0.95	0.25	3.0982	0.0042	0.0000
24	1.25	0.21	0.45	0.11	2.2085	0.0216	0.0820
25	1.06	0.06	0.25	0.06	1.0069	0.1650	0.3443

Questions	Mean	Variance	Std. Dev	Std. Err	t-Values	p-Values	Chi-Square
26	1.19	0.16	0.40	0.10	1.8914	0.0390	0.2565
27	1.13	0.11	0.33	0.08	1.5114	0.0757	0.4138
28	1.14	0.12	0.35	0.09	1.5235	0.0758	0.3788
29	2.29	1.85	1.36	0.36	3.5329	0.0018	0.0000
30	1.27	0.22	0.47	0.12	2.2132	0.0220	0.0703
31	1.07	0.07	0.26	0.07	1.0214	0.1628	0.3651
32	1.07	0.06	0.25	0.07	1.0141	0.1639	0.3678
33	1.07	0.07	0.26	0.07	1.0214	0.1628	0.3651
34	1.07	0.06	0.25	0.07	1.0141	0.1639	0.3678
35	1.27	0.22	0.47	0.12	2.2132	0.0220	0.0703
36	1.23	0.34	0.59	0.16	1.4183	0.0908	0.5846
37	2.54	2.42	1.56	0.43	3.5649	0.0019	0.0000
38	1.14	0.12	0.35	0.09	1.5235	0.0758	0.3788
39	1.00	0.01	0.12	0.03	0.0000	0.5000	0.1816

A high value of p (chi-square) is an indication that people agree with the proposition (value statements) mentioned in the survey instrument. After looking at above table, we can say that the factors included in Questions 3, 13, 20, 21, 22, 23, 29, and 37 do not contribute towards the value proposition of DOT as the respondents disagree with the question statements.

The second type of analysis is the correlation analysis of given data. We found cross correlation (highlighted areas) between all the questions as shown in Figure 11 (below):

Figure 11: Correlation Analysis

Questions	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39				
2	1.00																																									
3	-0.49	1.00																																								
4	0.43	-0.16	1.00																																							
5	0.56	-0.24	0.53	1.00																																						
6	0.66	-0.40	0.45	0.22	1.00																																					
7	0.79	-0.49	0.24	0.60	0.59	1.00																																				
8	0.85	-0.44	0.66	0.72	0.59	0.71	1.00																																			
9	0.81	-0.43	0.37	0.72	0.61	0.77	0.88	1.00																																		
10	0.56	-0.48	0.16	0.50	0.49	0.78	0.59	0.62	1.00																																	
11	0.78	-0.27	0.44	0.79	0.62	0.81	0.80	0.90	0.59	1.00																																
12	0.79	-0.23	0.62	0.67	0.59	0.67	0.54	0.87	0.48	0.77	1.00																															
13	-0.05	-0.07	-0.11	0.14	-0.17	-0.10	0.09	-0.01	0.05	-0.01	0.03	1.00																														
14	0.77	-0.50	0.21	0.79	0.50	0.85	0.78	0.91	0.71	0.86	0.76	0.02	1.00																													
15	0.70	-0.17	0.38	0.17	0.73	0.52	0.53	0.37	0.62	0.55	-0.26	0.40	1.00																													
16	0.68	-0.37	0.84	0.76	0.47	0.51	0.93	0.75	0.39	0.71	0.87	0.14	0.63	0.43	1.00																											
17	0.59	-0.61	0.02	0.58	0.47	0.79	0.51	0.61	0.74	0.64	0.43	0.13	0.85	0.35	0.36	1.00																										
18	0.59	-0.19	0.80	0.74	0.38	0.52	0.69	0.56	0.28	0.69	0.71	-0.12	0.53	0.51	0.82	0.36	1.00																									
19	0.57	-0.27	0.93	0.60	0.46	0.37	0.68	0.46	0.24	0.57	0.62	-0.11	0.35	0.50	0.82	0.20	0.91	1.00																								
20	0.14	0.02	0.35	0.27	0.38	-0.18	0.20	-0.10	-0.03	0.12	0.19	0.28	-0.27	0.23	0.18	-0.25	-0.07	0.18	1.00																							
21	-0.58	0.49	-0.30	0.29	-0.50	-0.40	-0.62	-0.60	-0.35	-0.57	-0.49	-0.42	-0.50	-0.54	-0.35	-0.27	-0.32	-0.40	1.00																							
22	-0.08	-0.38	0.17	-0.41	0.27	-0.23	0.05	-0.10	-0.07	-0.35	0.02	0.20	-0.23	-0.09	0.08	-0.17	-0.16	0.07	0.58	0.27	1.00																					
23	0.36	-0.78	0.44	0.31	0.46	0.40	0.37	0.27	0.42	0.23	0.26	0.20	0.33	0.18	0.43	0.52	0.49	0.56	0.14	0.40	0.42	1.00																				
24	0.33	-0.15	0.48	0.09	0.51	0.07	0.37	0.29	0.09	0.13	0.52	0.00	0.18	0.55	0.45	0.09	0.49	0.51	0.40	0.18	0.39	0.45	1.00																			
25	0.55	-0.29	0.78	0.35	0.63	0.23	0.78	0.60	0.27	0.45	0.75	0.12	0.32	0.50	0.82	0.08	0.52	0.65	0.53	0.64	0.41	0.36	0.57	1.00																		
26	0.73	-0.68	0.45	0.46	0.44	0.64	0.74	0.55	0.60	0.45	0.58	0.30	0.53	0.26	0.65	0.42	0.39	0.50	0.29	0.55	0.21	0.59	0.21	0.52	1.00																	
27	0.75	-0.38	0.63	0.77	0.57	0.66	0.92	0.86	0.60	0.81	0.91	0.19	0.81	0.60	0.91	0.59	0.76	0.67	0.09	0.59	0.04	0.41	0.52	0.73	0.57	1.00																
28	0.32	-0.18	0.76	0.70	0.09	0.36	0.56	0.23	0.31	0.48	0.49	0.01	0.32	0.14	0.76	0.35	0.93	0.89	-0.11	-0.07	0.20	0.62	0.22	0.22	0.35	0.56	1.00															
29	-0.20	0.27	-0.12	-0.30	-0.25	-0.27	-0.28	-0.33	-0.20	-0.20	-0.71	-0.35	-0.11	-0.15	-0.49	0.22	0.25	-0.11	0.36	-0.06	-0.17	-0.11	-0.07	-0.36	-0.38	0.21	1.00															
30	0.52	-0.53	0.26	0.18	0.61	0.57	0.58	0.32	0.70	0.22	0.47	-0.06	0.39	0.19	0.35	0.50	0.20	0.33	0.16	0.06	0.26	0.60	0.32	0.27	0.73	0.34	0.27	-0.33	1.00													
31	0.48	-0.38	0.43	0.65	0.36	0.66	0.79	0.59	0.79	0.70	0.61	-0.01	0.61	0.24	0.61	0.64	0.55	0.53	0.02	0.32	0.15	0.51	-0.01	0.23	0.48	0.64	0.70	-0.02	0.47	1.00												
32	0.56	-0.28	0.06	0.64	0.18	0.55	0.79	0.55	0.61	0.62	0.58	0.59	0.65	0.04	0.57	0.71	0.24	0.18	0.02	-0.39	0.22	0.25	-0.19	0.09	0.55	0.61	0.33	-0.60	0.38	0.58	1.00											
33	0.27	-0.57	0.45	0.11	0.35	0.36	0.46	0.04	0.46	0.09	0.20	0.20	0.09	-0.01	0.39	0.30	0.27	0.45	0.44	0.45	0.50	0.78	0.11	0.41	0.72	0.20	0.52	-0.03	0.58	0.64	0.31	1.00										
34	0.23	0.08	-0.04	0.15	0.19	0.09	-0.04	0.01	-0.15	0.25	-0.01	0.55	0.08	0.11	0.03	0.20	0.18	0.15	0.07	-0.25	0.01	0.18	0.10	-0.19	0.03	0.07	0.14	-0.43	-0.01	-0.11	0.37	-0.01	1.00									
35	0.16	-0.17	-0.20	0.24	0.12	0.35	0.21	0.39	0.39	0.50	0.16	0.53	0.34	0.13	0.10	0.38	0.16	0.07	-0.01	-0.45	-0.04	0.31	0.03	-0.18	0.30	0.21	0.27	-0.42	0.19	0.46	0.49	0.32	0.38	1.00								
36	0.29	-0.17	0.05	-0.08	-0.02	-0.08	0.01	0.02	0.01	-0.08	0.06	-0.30	0.00	0.29	0.02	0.28	0.30	0.04	0.08	0.01	0.27	0.51	0.03	0.05	0.01	0.28	0.39	0.13	0.13	-0.18	0.08	-0.17	0.13	1.00								
37	0.08	-0.14	0.22	0.17	-0.19	-0.06	-0.09	-0.02	-0.26	-0.03	-0.12	-0.46	-0.00	-0.28	-0.01	0.11	0.28	0.27	-0.14	0.04	-0.01	0.21	-0.14	-0.11	-0.05	-0.20	0.36	0.76	-0.22	0.12	-0.31	0.19	-0.18	-0.29	0.36	1.00						
38	0.71	-0.45	0.38	0.64	0.56	0.79	0.78	0.66	0.66	0.68	0.79	-0.01	0.75	0.36	0.60	0.83	0.68	0.50	-0.12	0.27	0.13	0.67	0.24	0.23	0.45	0.78	0.65	-0.17	0.54	0.69	0.52	0.50	0.21	0.18	0.07	0.17	1.00					
39	0.05	-0.04	0.51	0.39	0.24	0.35	0.39	0.26	0.39	0.39	0.55	-0.02	0.29	0.28	0.47	0.32	0.65	0.49	0.13	0.16	-0.04	0.47	0.41	0.26	0.08	0.56	0.69	0.09	0.19	0.71	0.14	0.49	-0.12	0.36	0.15	0.08	0.57	1.00				

Considerable correlations were considered as those with r-values greater than 0.8. It was seen that Question 2 is closely correlated with Questions 8 and 9. Similarly, Question 4 is strongly and positively correlated with Questions 16, 18 and 19.

By looking at the spread (Figure 11), we see correlation clusters between specific sets of questions. For instance, one cluster shows that Question 8 is highly correlated with Question 9, 11, 12, and 16. Similarly, Question 7 is correlated with Questions 11 and 14, Question 9 with Questions 11, 12, and 14. Another cluster on the sheet shows that Question 27 is strongly correlated with Question 8, 9, 11, 12, 14, and 16. These questions exhibit patterns with correlation more than 0.8 and so they are highly positively correlated.

We use correlation analysis to group value elements (VEs) together in order to differentiate the most important factors of DOT's value proposition. The following list of VEs show strong correlation among each other:

- *DOT excites students to apply what they learn*
- *DOT motivates students to learn more business skills*
- *DOT creates global network of talented young leaders*
- *DOT gives confidence that, in new businesses, the seemingly impossible can be possible*
- *DOT inspires students to try their best at what they do in businesses*
- *DOT encourages attitudes of "you can do it!"*
- *DOT provides entrepreneurship training to increase small business success*
- *DOT training improves the rate of survival of new businesses*
- *DOT training improves the rate of growth of new businesses*
- *DOT empowers people with the abilities to identify new opportunities for enterprise*
- *DOT improves the rate of formation of new enterprises.*

Interestingly, 9 out of the 11 above mentioned highly correlated value elements belong to the “PROCESS” section of survey instrument. It may be an indication that the former interns of DOT are less concerned about the “INPUT” and “OUTCOME” stages. Perhaps for future research, the latter stages (inputs and outcomes) need validation from internal executive members to support the claim that they can be further associated together.

During the interview process with the senior DOT executives (prior to Rep Grid activity), the differentiation among the final draft of twenty-four (24) value elements (VEs) was outlined. As mentioned in the previous chapter (Methodology), the interviewees were asked to organize the drawn elements on a two-dimensional 3x4 matrix with ‘inputs-process-outcome-impact’ and ‘degree of applicability’ dimensions on y-axis and x-axis respectively. The placement of elements on the two-dimensional matrix compares the importance of each element in terms of its present knowledge and future directions of the organization.

The results shown below (Table 8) are extracted from the data mentioned in Appendix K.

Table 8: Senior DOT Executives’ View - Extremely vs Somewhat Applicable Value Elements

EXTREMELY APPLICABLE	SOMEWHAT APPLICABLE
[1] <i>Use established technologies</i> to the benefit of developing economies	[5] Recognize that all individuals have the <i>right to participate as global citizens</i> regardless of their nation states
[3] Celebrate how <i>free market enterprise</i> can produce increased quality-of-life	[11] Encourage the formation of local social enterprises
[4] Exploit digital technologies to underpin <i>novel forms of enterprise</i> in marginalized economies	[13] Improve the rate of <i>survival</i> of new enterprises
[6] Empower people with the abilities to identify <i>new opportunities</i> for enterprise	[14] Assist by improving the rate of <i>growth</i> of new enterprises
[8] Encourage individuals to build local entrepreneurial ventures through <i>holistic training</i>	[21] Help <i>eliminate prejudice</i> by giving all people the skills and knowledge
[9] Foster <i>entrepreneurial creativity and market innovation</i> to influence economic growth	
[12] Improve the rate of <i>formation</i> of new enterprises	

[15] *Leverage* corporate sponsorship with government funding (and vice versa)

[17] Enable *actualized human potential* among entrepreneurially-minded individuals in emerging economies

[18] Bottom up *construction of knowledge*, sharing and collective intelligence

[19] *Employ and promote co-learning pedagogies*, which take advantage of ICT

[20] Help *reduce poverty* by giving all people the skills and knowledge

[22] Help *eliminate gender inequality* by giving all people the skills and knowledge

[23] Create global networks of talented, energetic *young leaders who make real change* by educating their communities

*Square brackets signify element's reference number from the group of twenty-four (24) finalized value elements displayed in Appendix E

It is evident from the comparison between the field staff and the senior DOT executives about the most important value differentiators of DOT's value proposition that there is a possible gap between the perceived values at various hierarchies within the organization. Some of the recommendations or suggestions for DOT global are discussed at the end of this chapter.

It is also important to mention that there may be some risk of Type II error involved in the findings since the data sample is small. But by following this methodology for analysis, we can outline a framework for future research. In the next phase of conducting a 'confirmatory study' a larger set of population would be tested.

4.1.4 An Approach to Test Readiness of Corporations Towards Community Benefit

This part aims to explore an approach for factoring in how a firm of today tends to view 'old paradigm' Profits First compared to 'new paradigm' Creating Shared Value.

For this purpose, a questionnaire (Appendix I) was presented to the Institute of Innovation Research (IIR-Uwaterloo) group (n=8), with adequate understanding about ‘creating shared value’ concept and RIM as a technologically innovative organization.

The hypothesis testing for it would simply analyze and report the following two variables:

- A test of mean of 'means' 'old paradigm' Profits First compared to 'new paradigm' Creating Shared Value to test the proposition that this firm is thinking primarily in the former mode today (not likely supported in this preliminary analysis)
- A test of mean of 'standard deviations' 'old paradigm' Profits First compared to 'new paradigm' Creating Shared Value to test the proposition that this firm is showing consensus in the perceptions of these opportunities today (not likely supported in this preliminary analysis).

Both require the use of the raw rating responses from the IIR respondents to derive 'means' and 'standard deviations' as shown in Table 9 (below):

Table 9: Respondent Wise Analysis for the Entire Sample Data

Respondents	Profit Oriented View		Creating Shared Value Oriented View	
	Mean	Std. Dev	Mean	Std. Dev
1	3.041667	0.80645	1.208333	0.508977
2	3.916667	1.212854	2.916667	1.665942
3	3.375000	0.824226	2.041667	0.954585
4	3.583333	0.775532	3.500000	0.780189
5	2.166667	0.761387	3.833333	0.761387
6	3.583333	1.100066	3.458333	1.444003
7	3.083333	0.829702	3.625000	0.875388
8	2.958333	0.999094	3.708333	0.999094

After calculating the paired t-values for the ‘Means’ and ‘Standard Deviations’, we get the following results:

Table 10: Paired T-Test Values for Means

Paired t-Values	0.340428
Conclusion	There is no significant difference between average ratings of profit and creation of shared value

Table 11: Paired T-Test Values for Standard Deviations

Paired t-Values	0.166152
Conclusion	There is no significant difference between average ratings of profit and creation of shared value

The raw data or respondent wise analysis according to individual elements is displayed in Appendix L.

This is but one approach, and other ones are equally worth investigating. It is possible and necessary to conduct ‘confirmatory analyses’ of the study at the later phases.

Chapter 5

Conclusion

Where foreign aid to the developing countries as well as corporate social responsibility (CSR) entails strict screening, surveillance and auditing processes, it does not always guarantee foolproof distribution of fair-play and benefit to stakeholders, especially if it is projected to the emerging or underdeveloped communities. A healthier approach pertains to 'creating shared value' amalgamating entrepreneurship and technology.

It is a meshing of social skills incorporated with technology-based acumen. The conducted exploratory research and survey provides with a framework to conduct a later 'confirmatory' study to articulate the value proposition of DOT. It is a testament to the fact that a very practicable model of the aforementioned solution exists; in this case, in the form of DOT enterprise. Their efforts stem from a genuine desire to benefit underdeveloped areas, without simply profit aspirations. That is perhaps the most commendable trait, to work in developing regions with a win-win situation, and not just by generating / gaining exorbitant amounts of funds.

The data helped to identify the most important value differentiators of DOT that would enable the policy makers (such as DOT's senior executives, and board of directors) to identify areas where DOT practice is not in line with DOT's mission and values. For instance one finding suggest that there is a possibility that the former interns are more concerned about the efforts in advocating their cause, rather than focusing entirely on the gain and loss aspect.

DOT entails a longitudinal effect; it is not simply 'training' to develop entrepreneurship in developing countries, in-fact their model is training as well as multiple initiatives or comprehensiveness of training which transforms the lives of the local trainees in the real sense.

They put a lot of emphasis on youth, and on gender equality; perhaps that is what keeps them ahead of the curve from others.

Their core competencies lie in the areas of innovative programs. For example, the combination of entrepreneurship and technology fits perfectly in the context of developing countries. DOT

amalgamates hands-on learning with capacity building models, which is in a true sense a very empowering and complex approach for enabling environments.

This study basically can help explore ways through which developing economies can become self-sustaining and less reliant on foreign aid. In order to implement Prahalad (2006), Moyo (2009) and Porter's (2011) ideas of effectively serving the masses at the bottom of the pyramid, avoiding hand outs, or creating shared value, it can be done when corporations or government leveraged agencies work together with NGOs that are helping to bridge the digital divide and finding innovative solutions to address the issue of poverty.

The following summary table (Table 12) outlines what was learned and what to do to improve the learning prior to a later confirmation study:

Table 12: Summary Table for New Learning

STEPS TO THE CASE STUDY	RESEARCHER'S VIEW OF WHAT WAS LEARNED	WHAT TO DO TO IMPROVE THE LEARNING
A – Draft Elements	* * *	Remain up-to-date with the literature on Models for Entrepreneurship Development in Under-served Communities
B – Revise Elements	* *	Along-with the senior executives of DOT, the donor agencies (corporations, government) should also be included
C – Rep Grid of Elements by Senior Management	* * * *	No improvements needed

D – Elements Based Survey

* *

Extend the survey to more stakeholders (DOT executives, interns, contractors, donors) and test with a larger sample for greater statistical robustness

E – Corporate Feedback on Perceived Social Value

*

Improve the set of questions to be posed to members of partner agencies or corporations

WHERE:

* * * *	Outstanding
* * *	Excellent
* *	Good
*	Needs Improvement

Chapter 6

Limitations and Future Research

One of the limitations of the research was the sample size chosen for this exploratory study. The analysis was based on the responses assimilated from seventeen (17) respondents only, belonging to the former intern group of DOT. However, the next step would be to examine categories of the whole population of DOT; that includes their field staff, current interns, contractors and executive members spread out in different regions of the world.

Due to the somewhat limited scope of this exploratory study, the 360-degrees stakeholders' perspective is not included. However, for future confirmatory study, perspective of various existing or potential donor corporations of DOT would also be integrated into the investigation.

The application of 'creating shared value' model (Porter, 2011) may become inevitable for corporations' survival at some point in the future. According to Weinreb Group (2011), corporations are now being pushed to "recalculate the social and environmental consequences of doing business". In response some big organizations are now adjusting their thinking patterns and re-strategizing their business models to achieve sustainability.

The incorporation of 'creating shared value' into new business models requires time to build. A true paradigm shift is needed to start and settle in with this practical concept. Maybe a reasonable approach would be to pass a general understanding of how this model works. Implementation can be accelerated if it is presented in constitutional form, not much different from the Sarbanes-Oxley Act.

Based on this research, a considerably thorough understanding of DOT's operational mechanism is achieved, and paves an easier way to construct apt testing and research methodologies. Armed with those procedures, the next target DOT representatives will be given comprehensive structures of evaluation, whereupon calculation of variables is pinpointed at creating the best model of creating shared value and sustainability. This could be undertaken after exhaustive study of measures taken by DOT is undergone, incorporating social values with technology expertise and training skills.

For future research the present variables and results can be extended. Considerable emphasis would be provided on gaining insight from DOT's staff all over the world. Comparisons will be drawn as to how various cultures and living conditions affect success and sustainability of the concept, and how it can be molded into a working, thriving model that we hope will be generalizable.

No doubt, more evidence is required to evaluate the impact of social innovation and its role in developing self-sustaining model for the developing countries. By evaluating DOT's impact on the regional basis, many donor MNCs or government-leveraged bodies would take interest in learning more about the benefits of such collaboration. For the corporations, there is huge potential to develop new markets and gain long-term sustainability and longevity of their products or services.

From this master's thesis, the primary users of the new learning will be the executive management team in DOT Global. They will assist with the refinement and reconstruction of DOT's value proposition. This result will be verified by a survey of several types of DOT respondents.

Nevertheless, the principal contribution of the follow-on study would be to gauge the reaction of potential corporate and government partners to the emerging paradigm of 'creating shared value'. This is expected to yield the greatest insights of consequences to both firms in developed economies and underserved communities in under-developed economies.

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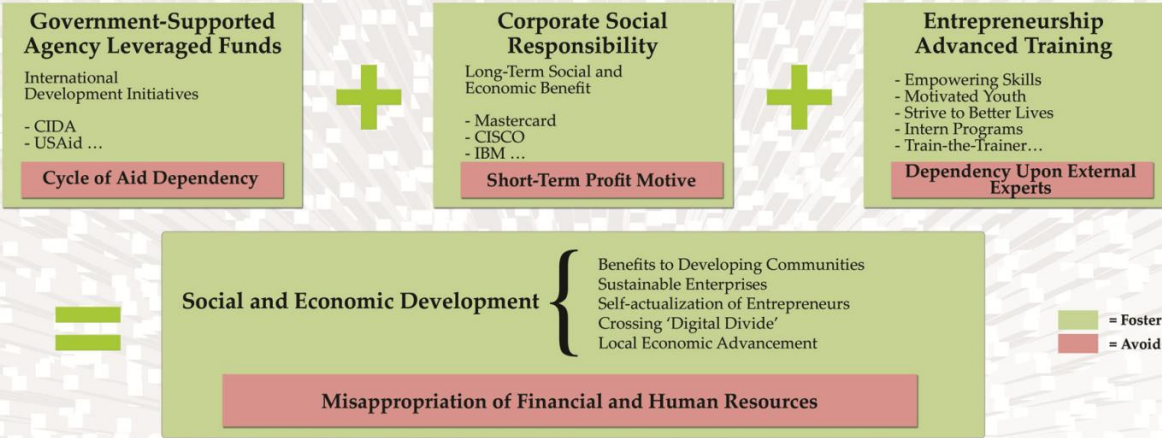
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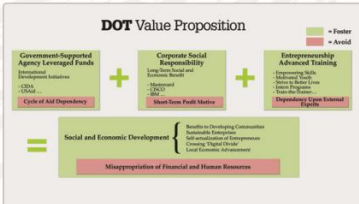
Appendix A

THE VALUE PROPOSITION OF DIGITAL OPPORTUNITY TRUST



Expand and Revise the 'Boxes' with Evidence

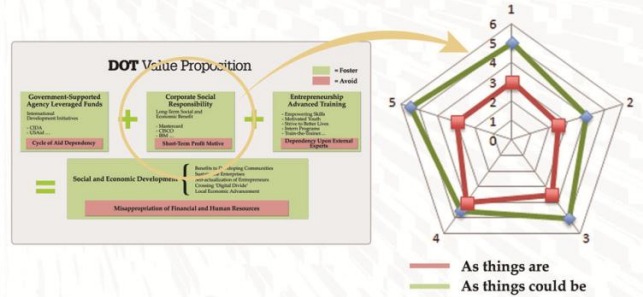
This study aims to understand DOT's value proposition by characterizing the 'modus operandi' and impact of entrepreneurship in digital opportunity initiatives in the developing (or under-developed) regions of the world undertaken by Digital Opportunity Trust. DOT is an initiative driven to help reduce poverty, and to achieve greater social and economic stability, by empowering the people with skills and knowledge through utilizing new technologies in their communities.



Information in the 'boxes' will be revised through the conduct of personal interview with the DOT's executives, senior staff, members of the board of directors, interns and contractors.

The aim is to gather insightful information to characterize the value proposition.

Pushing the Limits: As Things Are vs Could Be



After ensuring that the model is as accurate as possible for depicting DOT's value proposition (to be achieved through interviews with DOT key personnel), characterize the main defining attributes of each of the 'boxes'. Through a web-based survey, gather two estimates of achievement for each of the defining attributes ('as things are' to reflect present achievement and 'as things could be' to reflect how far the attribute might be 'pushed') and plot on a radio graph. Confirm analyses through a few follow-up interviews.

Appendix B

“*Transplant* established technologies from developed economies to developing economies”

Encourage multinational corporations to deploy their appropriately modified products and services into local communities of developing economies

1

“Enhance the vision of a global village by emphasizing *shared aspects of humankind* while downplaying differences”

Build empathy and mutual respect to help overcome socio-economic disparities and inequities of human conditions

2

“Articulate exemplars of how *free market enterprise* can produce increased quality-of-life”

Demonstrate alternatives to financial corruption and privileged entitlement by devising ways to offer “a hand up” and less reliance on “a handout”

3

“Exploit digital technologies to underpin *novel forms of enterprise* in developing economies”

Bring appropriately configured, venture-scaled, and free-standing technical capabilities as may form the basis for new enterprises

4

“Assert that all individuals have the *same human rights* regardless of their nation states”

Advance a cosmopolitan world view by which individuals are more important than nationalities

5

“Empower people from communities in developing economies with the abilities to identify *new opportunities* for enterprise”

Instead of giving a fish to a hungry person, teach the person to fish and thereby feed that person for life

6

“Help develop a creative class to *nurture human capital* as economic clusters in the developing regions of the world”

Attract multinational corporations to more fully utilize the human capital in regions with developing economies

7

“Encourage individuals to build native or local entrepreneurial ventures through
highly specialized advanced training”

Encourage citizens to spend more of their time in economic production, and less
of their time in leisure

8

“Promote *social values*, such as self esteem, in low-income communities”

Enable people to participate in local economic development, rather than living as
passive charity recipients

9

“Foster *entrepreneurial creativity and market innovation* to influence economic
growth”

Combine to help eradicate poverty through low-end capitalism and micro
enterprise entrepreneurship

10

“Provide entrepreneurial training to increase *micro-enterprise success*”

Reduce the likelihood of micro-financed enterprise failures due to lack of
specialized skill or weak awareness of conditions for commerce

11

“Bridge the digital divide between knowledge-based economies and informal sectors that operate below the poverty line”

Enable entrepreneurially-minded individuals to become micro-producers as well as micro-consumers

12

“Advance a civil society where masses find fulfillment through development of social enterprises”

Reduce technology biases and ethnic biases while seeking to promote cultural and social diversity

13

“Assist by improving the rate of formation of new enterprises”

Initiation rate (at 0 to 1 year) of small- to medium-sized enterprises is positively related to economic growth

14

“Assist by improving the rate of survival of new enterprises”

Survival rate (at 1 to 3 years) of small- to medium-sized enterprises is positively related to economic growth

15

“Assist by improving the rate of *growth* of new enterprises”

Growth rate (at 3 to 5 years) of small- to medium-sized enterprises is positively related to economic growth

16

“Create *shared values* between established corporations and new ventures in emerging economies”

Express outcomes as 'shared values' and not just 'social benefit'

17

“*Leverage* corporate sponsorship with government funding”

Generate 2X extension of funding awarded to DOT Global

18

“*Infuse* Canadian funding into ventures in growing economies”

Generate 5X buying power of CDN\$ FDI in emerging economies

19

"Enable *actualized human potential* among entrepreneurially-minded individuals
in emerging economies"

Generate 10X multiplier effect from sparking innovation in communities

20

Appendix C

Elements	<i>Clarity of Element</i>	<i>Importance of Element</i>
1	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
2	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
3	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
4	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
5	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
6	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
7	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
8	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
9	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
10	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
11	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
12	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
13	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
14	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
15	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
16	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
17	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
18	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
19	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High
20	Low 1 2 3 4 5 High	Low 1 2 3 4 5 High

Name:

Appendix D

“*Transplant* established technologies from developed economies to developing economies”

Multinational corporations like CISCO, IBM, RIM etc. to deploy their appropriately modified products and services into local communities of developing economies

1

“Enhance the vision of a global village by emphasizing *shared aspects of humankind* while downplaying differences”

Build empathy and mutual respect to overcome socio-economic disparities and inequities of human conditions, such as promoting usage of technologies by all races, genders, without any ethnic divide

2

“Articulate exemplars of how *free market enterprise* can produce increased quality-of-life”

Demonstrate alternatives to financial corruption and privileged entitlement by devising ways to offer “a hand up” and less reliance on “a handout”

3

“Exploit digital technologies to underpin *novel forms of enterprise* in developing economies”

Bring appropriately configured, venture-scaled, and free-standing technical capabilities as may form the basis for new enterprises

4

“Assert that all individuals have the *same human rights* regardless of their nation states”

Advance a cosmopolitan world view by which individuals are more important than nationalities, that addresses exactly what developing countries need

5

“Empower people from communities in developing economies with the abilities to identify *new opportunities* for enterprise”

Instead of giving a fish to a hungry person, teach the person to fish and thereby feed that person for life, that eventually promotes self-sustainability

6

“Help develop a creative class to *nurture human capital* as economic clusters in the developing regions of the world”

Attract multinational corporations to more fully utilize the human capital in regions with developing economies and provide access to long-term investment

7

“Encourage individuals to build native or local entrepreneurial ventures through highly specialized advanced training”

Enable ~~Encourage~~ citizens to spend more of their time in economic production, and less of their time in leisure or non-developmental activities

8

“Promote social values, such as self esteem, in low-income communities”

Enable people to participate in local economic development, rather than living as passive charity recipients

9

“Foster entrepreneurial creativity and market innovation to influence economic growth”

Combine to help eradicate poverty through low-end capitalism and micro enterprise entrepreneurship, by promoting small retail kiosks, transportation for people and commodities etc

10

“Provide entrepreneurial training to increase micro-enterprise success”

Reduce the likelihood of micro-financed enterprise failures due to lack of specialized skill or weak awareness of conditions for commerce in the developing regions

11

“Bridge the digital divide between knowledge-based economies and informal sectors that operate below the poverty line”

Enable entrepreneurially-minded individuals to become micro-producers as well as micro-consumers by establishing market stalls for their products and services

12

“Advance a civil society where masses find fulfillment through development of social enterprises”

Reduce technology biases and ethnic biases while seeking to promote cultural and social diversity

13

“Assist by improving the rate of formation of new enterprises”

Initiation rate (at 0 to 1 year) of small- to medium-sized enterprises is positively related to economic growth

14

“Assist by improving the rate of survival of new enterprises”

Survival rate (at 1 to 3 years) of small- to medium-sized enterprises is positively related to economic growth

15

“Assist by improving the rate of *growth* of new enterprises”

Growth rate (at 3 to 5 years) of small- to medium-sized enterprises is positively related to economic growth

16

"Create *shared values* between established corporations and new ventures in emerging economies"

Express outcomes as 'shared values' and not just 'social benefit', such as going beyond stakeholder returns and adding some ethics

17

"Leverage corporate sponsorship with government funding"

Generate 2X (multiplier effect) extension of funding awarded to DOT Global

18

"Infuse Canadian funding into ventures in growing economies"

Generate 5X (multiplier effect) buying power of CDN\$ FDI in emerging economies

19

"Enable *actualized human potential* among entrepreneurial-minded individuals in emerging economies"

Generate 10X (multiplier effect) from sparking innovation in communities

20

Appendix E

“Use established technologies to the benefit of developing economies”

Connect people to these environments and build local confidence to develop local apps e.g., Mobile

1

“Today’s technologies are realizing a global village by emphasizing shared aspects of humankind while downplaying differences”

Build empathy and mutual respect to overcome socio-economic disparities and inequities of human conditions, such as by promoting effective use of technologies by all races, genders, without any ethnic divide

2

“Celebrate how free market enterprise can produce increased quality-of-life”

Create the capacity in people to devise their own ways within their communities and within a spirit of social justice

3

“Exploit digital technologies to underpin novel forms of enterprise in marginalized economies”

Create the knowledge and confidence conditions within which beneficiaries “discover possibilities”

4

“Recognize that all individuals have the *right to participate as global citizens* regardless of their nation states”

Create the self-confidence and courage in people to participate using technology in a global society and marketplace

5

“Empower people with the abilities to identify *new opportunities for enterprise*”

As stated long ago, instead of giving a fish to a hungry person, teach the person to fish and thereby feed that person for life, a push toward self-sustaining

6

“Help develop a creativity to *nurture human capital in developing regions of the world*”

Recognize that these are growing markets, worthy of investment

7

“Encourage individuals to build local entrepreneurial ventures through *holistic training*”

Build confidence in basic, latent capabilities, but use technology to amplify

8

“Foster *entrepreneurial creativity and market innovation* to influence economic growth”

Combine to help reduce poverty through low-end capitalism and micro enterprise entrepreneurship

9

“Provide entrepreneurial training to increase *micro-enterprise success*”

Improve success rate in micro-financed enterprise by providing up-front training

10

“Encourage the formation of local social enterprises”

Build a culture of social responsibility

11

“Improve the rate of *formation* of new enterprises”

Initiation rate (at 0 to 1 year stage) of small- to medium-sized enterprises, contributing to economic growth (*ReachUp!*)

12

“Improve the rate of *survival* of new enterprises”

Survival rate (at 1 to 3 year stage) of small- to medium-sized enterprises,
contributing to economic growth (*StartUp!*)

13

“Assist by improving the rate of *growth* of new enterprises”

Growth rate (at 3 to 5 year stage) of small- to medium-sized enterprises,
contributing to economic growth (*ScaleUp!*)

14

“*Leverage* corporate sponsorship with government funding (and vice versa)”

Generate multiplier effects (2x?) for extension of funding awarded to DOT Global

15

“*Infuse* Canadian funding into ventures in growing economies”

Generate multiplier effects (5x?) by buying power of CDN\$ infused into emerging
economies

16

"Enable *actualized human potential* among entrepreneurial-minded individuals in emerging economies"

Generate multiplier effects (10x?) that arise from sparking innovation in communities

17

"Bottom up construction of knowledge, sharing and collective intelligence"

By applying ICT techniques, such as Web2.0 technologies, application, and services that allow people to become producers, contributors, and creators of information and knowledge rather than just consumers

18

"Employ and promote co-learning pedagogies, which take advantage of ICT"

The richness of multiculturalism encourages multiple digital practices e.g., blogging

19

"Help reduce poverty by giving all people the skills and knowledge"

Foster use of technology to achieve educational, social and economic opportunity

20

“Help *eliminate prejudice* by giving all people the skills and knowledge”

Foster use of technology to achieve educational, social and economic opportunities

21

“Help *eliminate gender inequality* by giving all people the skills and knowledge”

Foster use of technology to achieve educational, social and economic opportunities

22

“Create global networks of talented, energetic *young leaders who make real change* by educating their communities”

Train young leaders who will educate their communities to apply technology effectively to real life

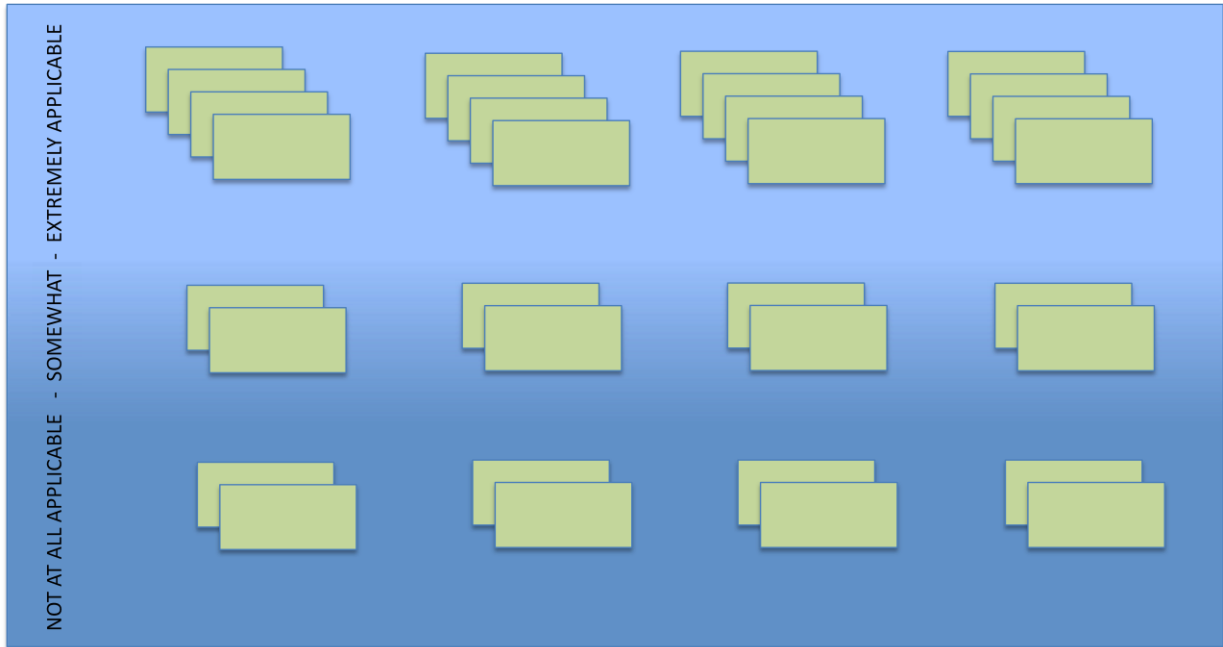
23

“Excite students to embrace learning and become engaged so as to improve educational outcomes”

Help teachers to integrate technology into the classroom, to train young people to work in the digital world

24

Appendix F



Appendix G

NOT AT ALL APPLICABLE - SOMEWHAT - EXTREMELY APPLICABLE

Appendix H

UNIVERSITY OF
WATERLOO

Exit this survey

The Value Proposition of DOT

By completing this consent form, you are NOT waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about a study being conducted by Muhammad Umair Shah (1-519-888-4567 ext. 38635 or by email at mushah@uwaterloo.ca) of the Management Science Department, Faculty of Engineering at the University of Waterloo, under the supervision of Professor Paul D. Guild (1-519-888-4567 ext. 84802 or by email at guild@uwaterloo.ca). I have had an opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I was informed that I may withdraw my consent at any time without penalty by advising the researcher.

This project has been reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. I was informed that if I have any comments or concerns resulting from my participation in this study, I may contact the Director, Office of Research Ethics at 519-888-4567 ext. 36005.

***1. Consent to Participate**

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

- "I agree to participate."
- "I do not wish to participate (please close your web browser now)."

Next

The Value Proposition of DOT

INTRODUCTION

While you are encouraged to answer the questionnaire as completely as possible, you may decline to answer any questions that you do not wish to answer. You can also withdraw your participation at any time by not submitting your responses.

Click the [Next](#) button when you are ready to proceed to the next page.

Prev

Next

The Value Proposition of DOT

OBJECTIVE

Please help us describe DOT's "**value proposition**"

- In general, a "*value proposition*" describes the benefits that create value for and have positive impact upon the "*customers*" of an enterprise
- In DOT, the "*value proposition*" describes those things that create benefits and positive impacts for interns and trainees
- In other words, it solves their problems or satisfies their need and it is an aggregation, or bundle, of benefits that DOT offers to all its stakeholders

Prev

Next

The Value Proposition of DOT

SECTION 1: PROCESSES

To what extent do you **agree** or **disagree** with the following statements:

2. DOT inspires students to try their best at what they do in businesses

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. DOT provides entrepreneurship training to increase small business success

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. DOT helps bridging the digital divide between developed economies and economies operating below the poverty line

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. DOT believes that all people should have equal access to opportunities

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. DOT encourages individuals to build local entrepreneurial ventures

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. DOT encourages attitudes of "you can do it!"

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. DOT is unable to bridge the digital divide between developed economies and economies operating below the poverty line

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. DOT promotes learning to take advantage of ICT

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. DOT creates global networks of talented young leaders

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. DOT training improves the rate of growth of new businesses

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. DOT excites students to apply what they learn

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. DOT excites students to become engaged to improve educational outcomes

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. DOT gives confidence that, in new businesses, the seemingly impossible can be possible

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. DOT tells students what new businesses to start

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. DOT training improves the rate of survival of new businesses

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. DOT uses existing technologies to benefit developing countries

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. DOT makes real change by educating young leaders in their communities

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. DOT motivates students to learn more business skills

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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The Value Proposition of DOT

SECTION 2: INPUTS

To what extent do you agree or disagree with the following statements:

20. DOT effectively brings strong currency to developing economies

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. DOT applies digital technologies to new forms of enterprise in under-served economies

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. DOT is less than successful at promoting social values, such as self esteem in low-income communities

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. DOT empowers people with the abilities to identify new opportunities for enterprise

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. DOT encourages the formation of local enterprises by social entrepreneurs

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. DOT promotes foreign investment into ventures within developing countries

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. DOT is successful at promoting social values, such as self esteem in low-income communities

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. DOT effectively combines corporate sponsorship with government funding

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SECTION 3: OUTCOMES

To what extent do you agree or disagree with the following statements:

28. DOT helps develop self-confidence to nurture human capital in developing regions of the world

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. DOT helps eliminate gender inequality by giving all people needed skills and knowledge

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. DOT backs human potential among entrepreneurial-minded individuals in emerging economies

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. DOT celebrates how free market enterprise can produce increased quality-of-life

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. DOT believes that entrepreneurial creativity can influence economic growth

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. DOT helps reduce poverty by giving all people needed skills and knowledge

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. DOT helps eliminate prejudice by giving all people needed skills and knowledge

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. DOT shows how innovation can influence economic growth

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. DOT improves the rate of formation of new enterprises

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37. DOT is less than successful at developing a civil society through development of local businesses in those regions

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. DOT helps develop creativity to nurture human capital in developing regions of the world

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. DOT is unable to reduce ethnic biases in the developing regions

Highly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Highly Disagree	Not Applicable
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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The Value Proposition of DOT

SECTION 4: DEMOGRAPHIC INFORMATION

40. Please indicate the answer that best describes your role in DOT

- I am a member of the DOT Intern group
- I am a member of the DOT Alumni group
- I am a member of the DOT Field Staff group
- I am a member of the DOT Global group

41. Please indicate the answer that best describes your home location

- I live in a country in Africa
- I live in a country in Asia
- I live in a country in the Middle East
- I live in a country in North America
- I live in a country in South America

42. Please indicate the answer that best describes your age

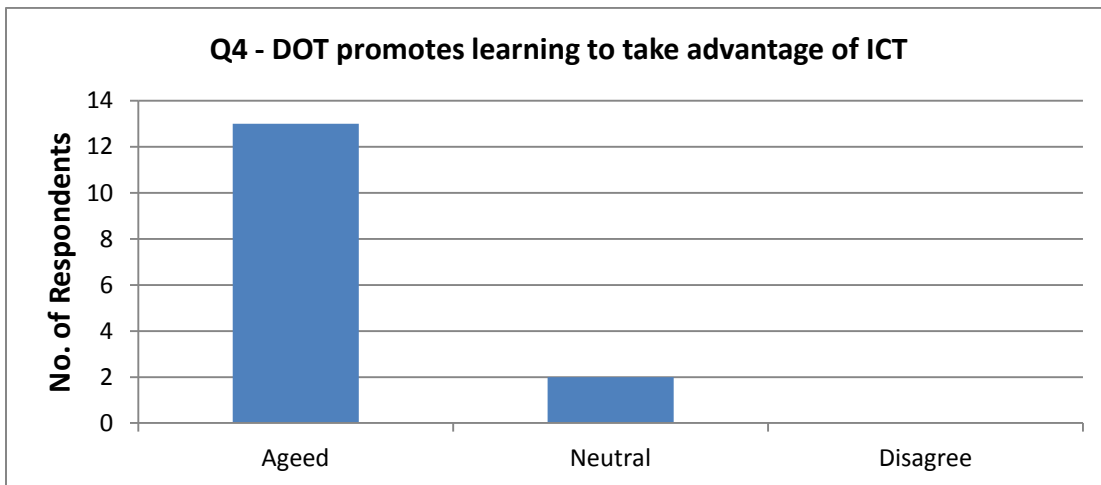
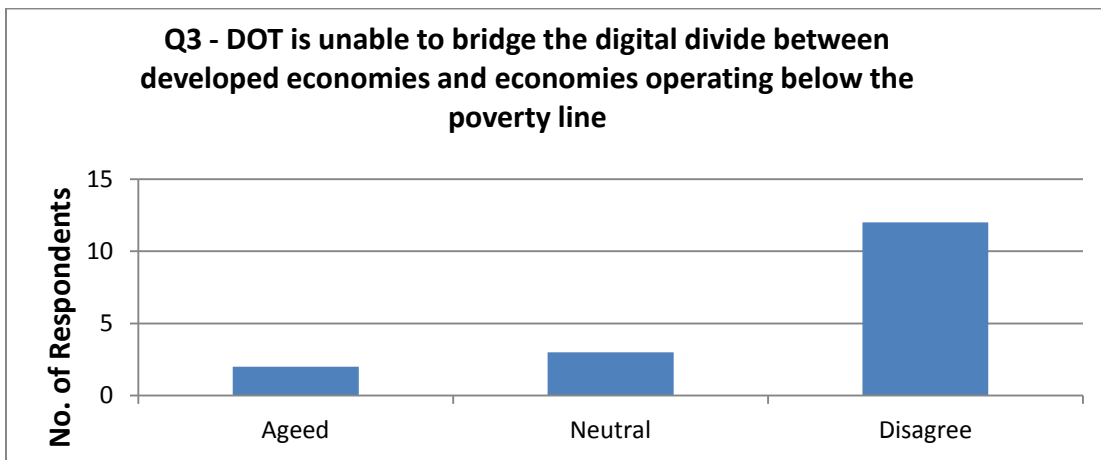
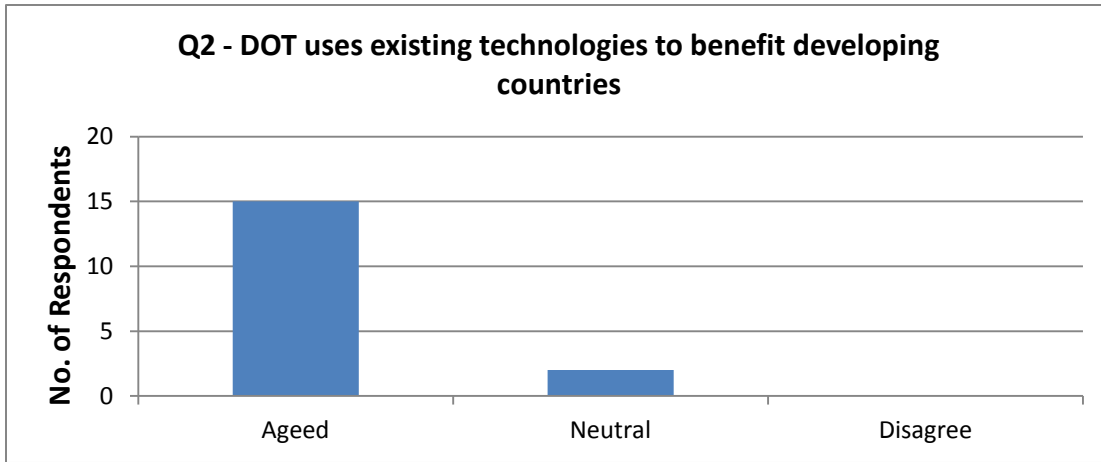
- I am under 20 years of age
- I am between 20 and 25 years of age
- I am between 25 and 30 years of age
- I am between 30 and 35 years of age
- I am between 35 and 40 years of age
- I am over 40 years of age

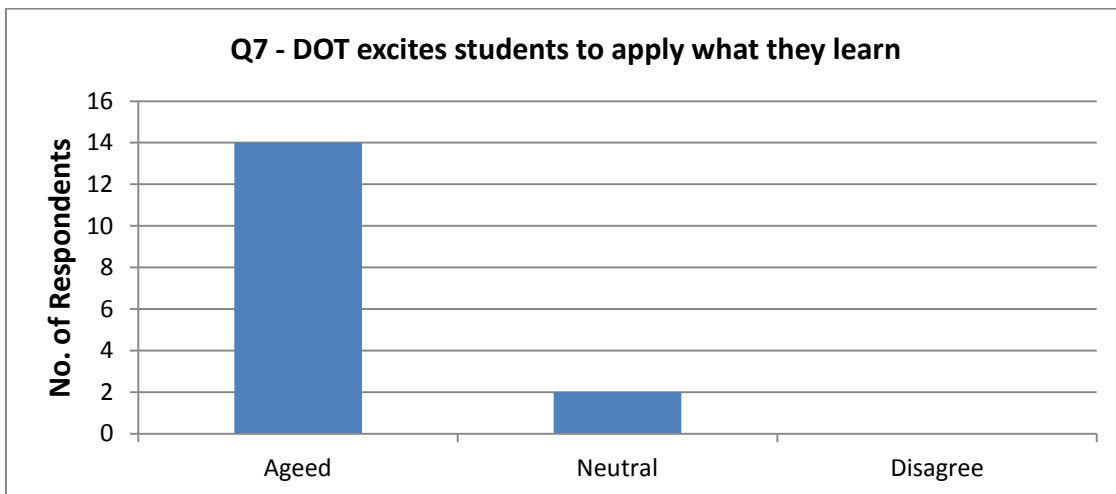
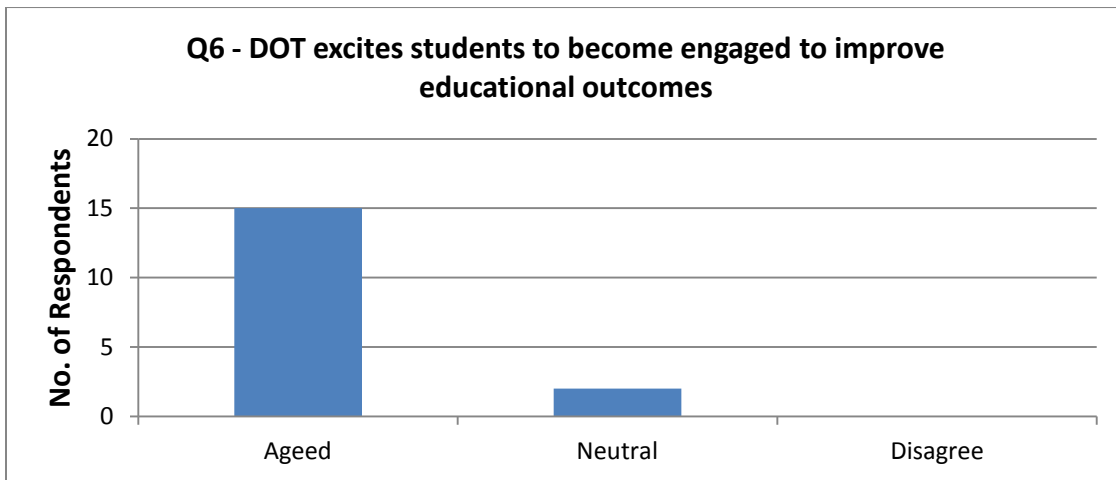
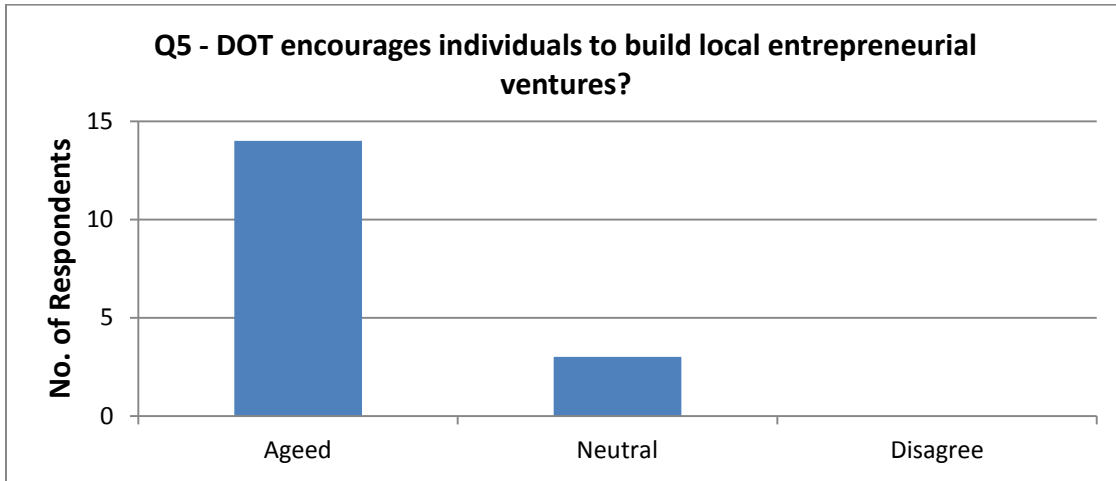
Appendix I

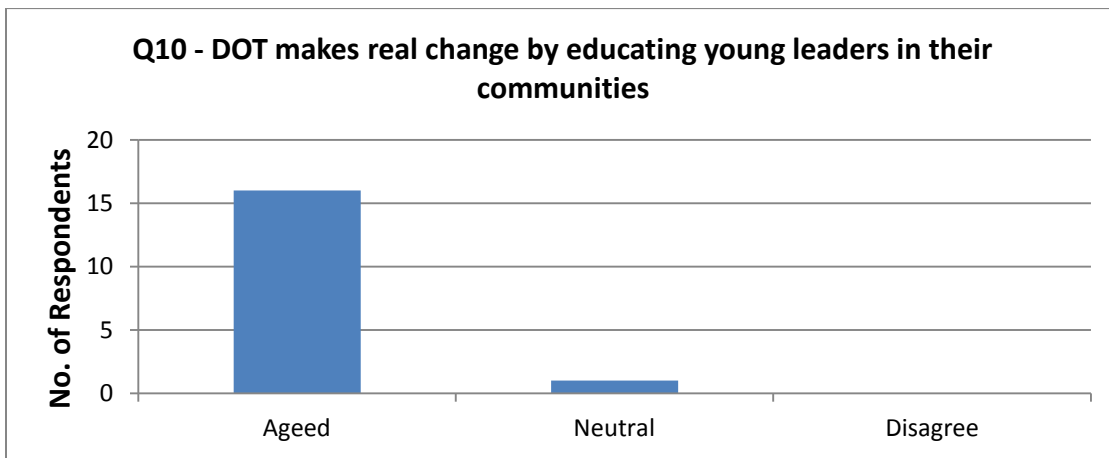
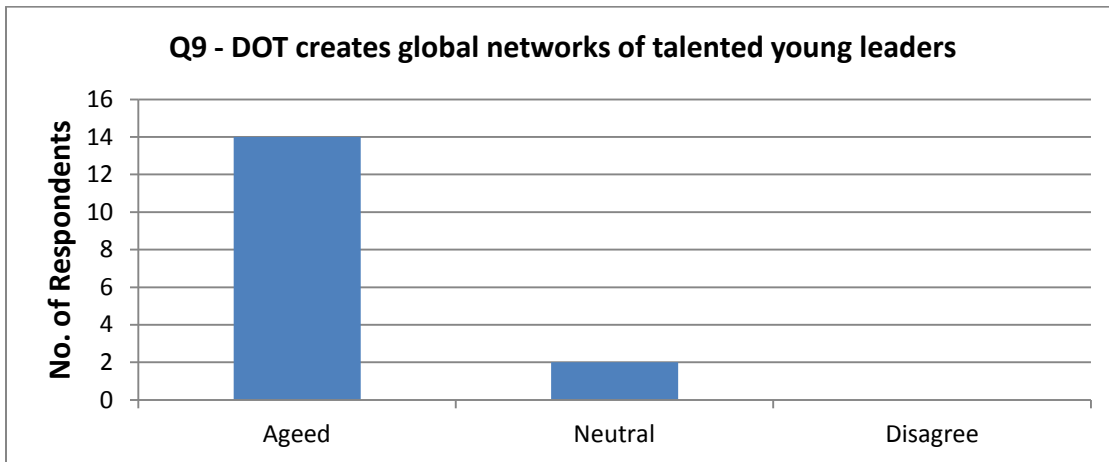
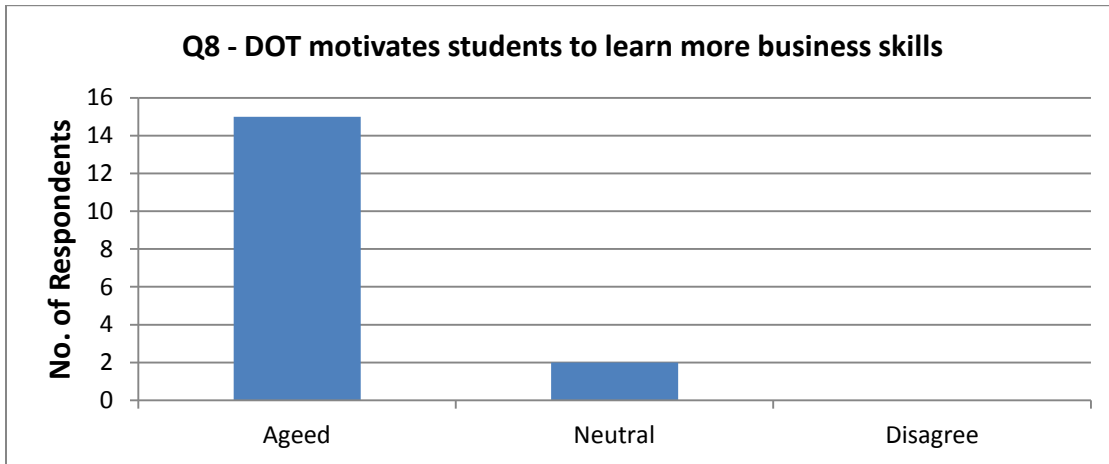
DOT Elements Of Value	Towards Profit to Firm: Value's potential to contribute to the ability to give priority to increased <i>Economic Benefit</i> (so slice the pie more ways)?							Toward Benefit to Community: Value's potential to contribute to the ability to give priority to increased <i>Social Benefit</i> (so grow the size of the pie)?						
1	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
2	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
3	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
4	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
5	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
6	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
7	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
8	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
9	<i>Low</i>	1	2	3	4	5	<i>High</i>	<i>Low</i>	1	2	3	4	5	<i>High</i>
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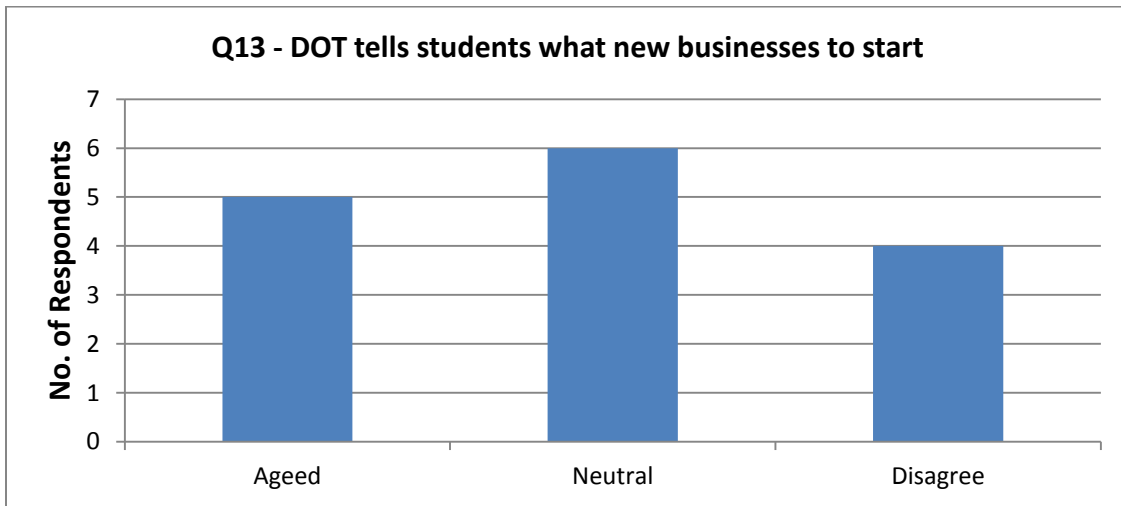
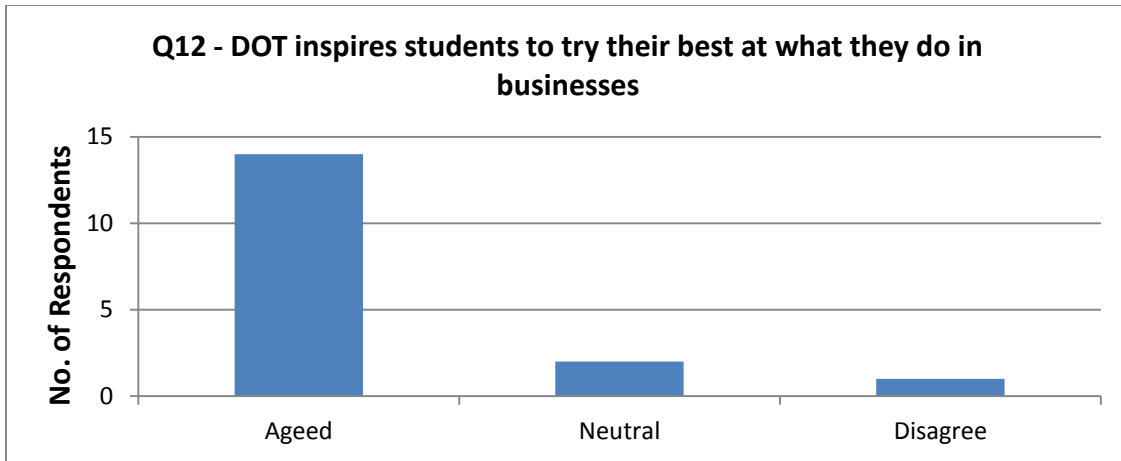
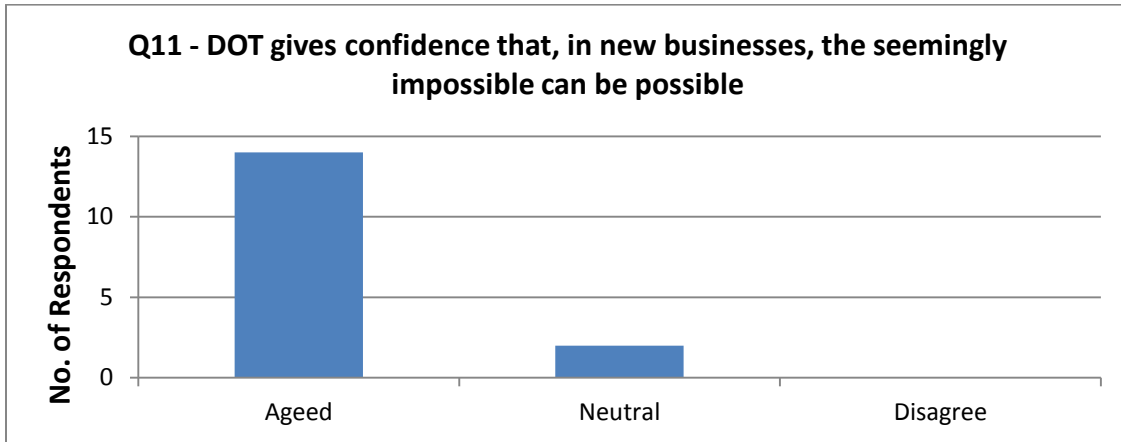
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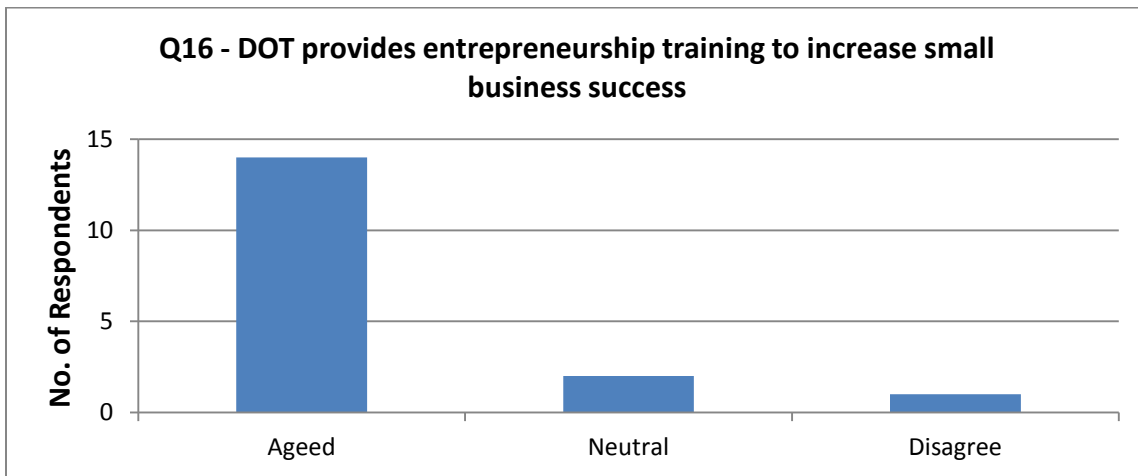
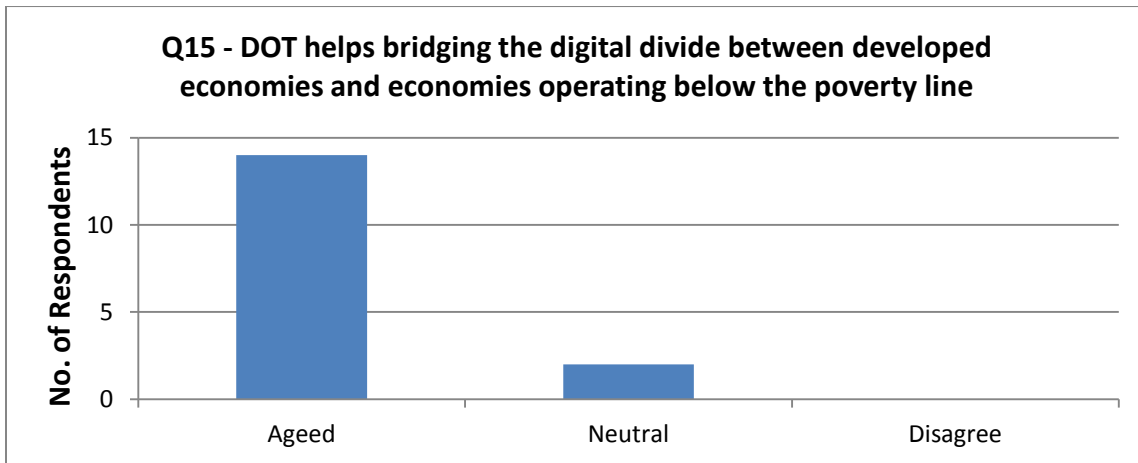
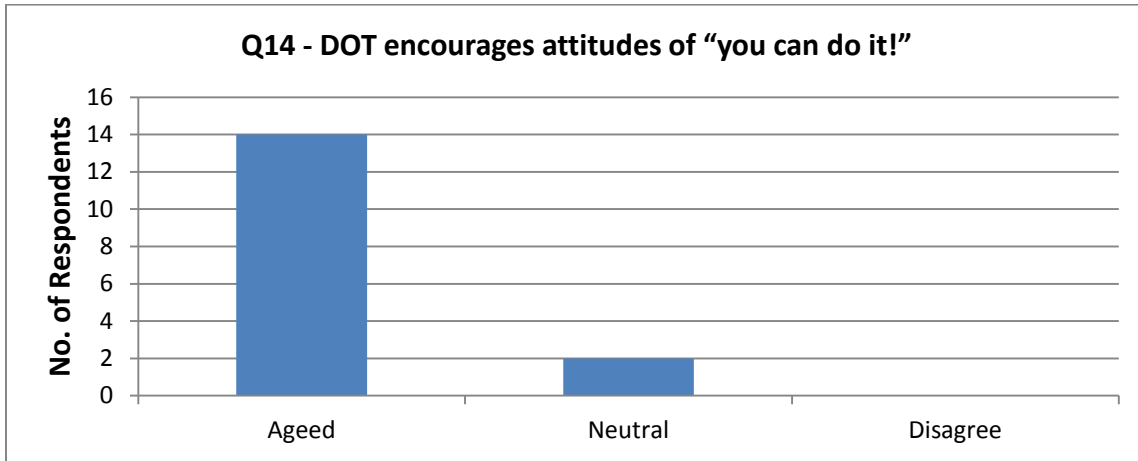
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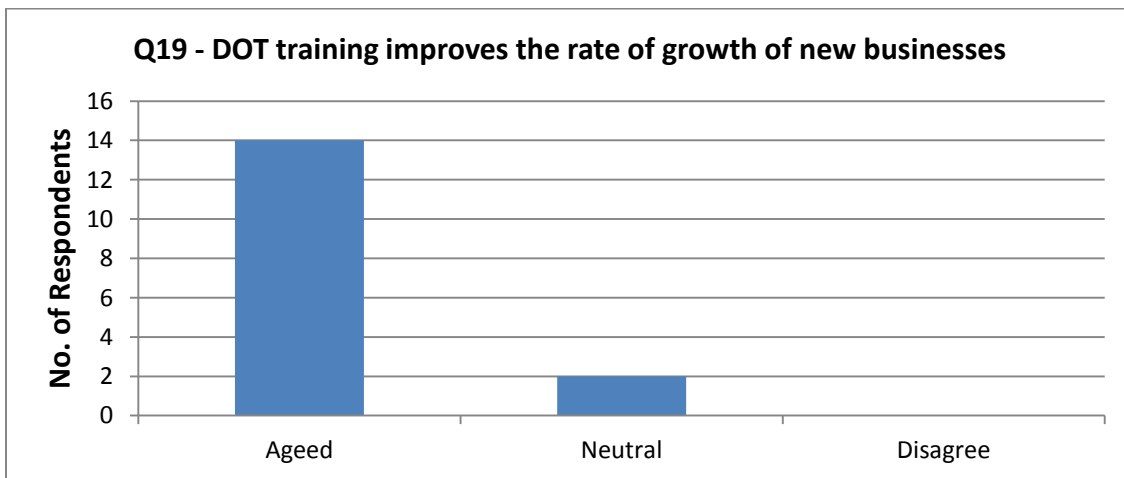
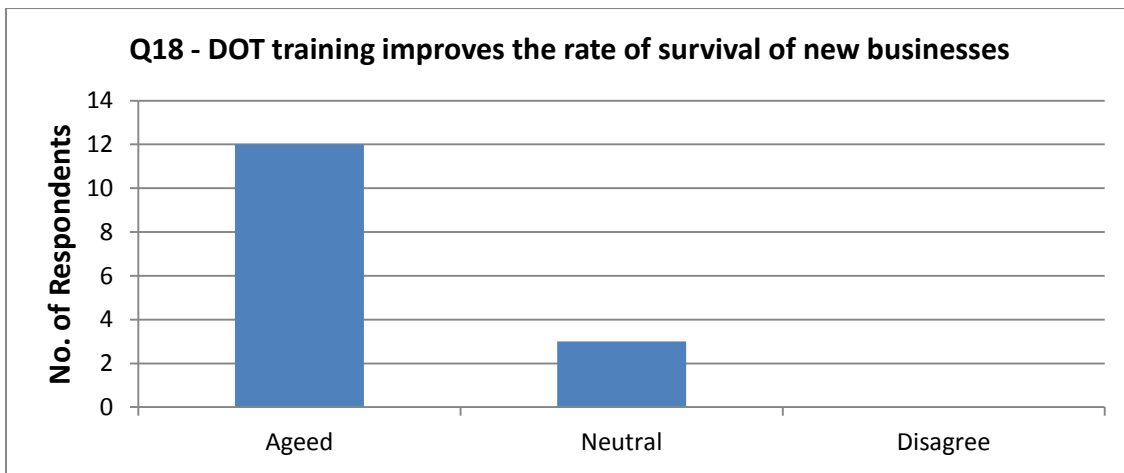
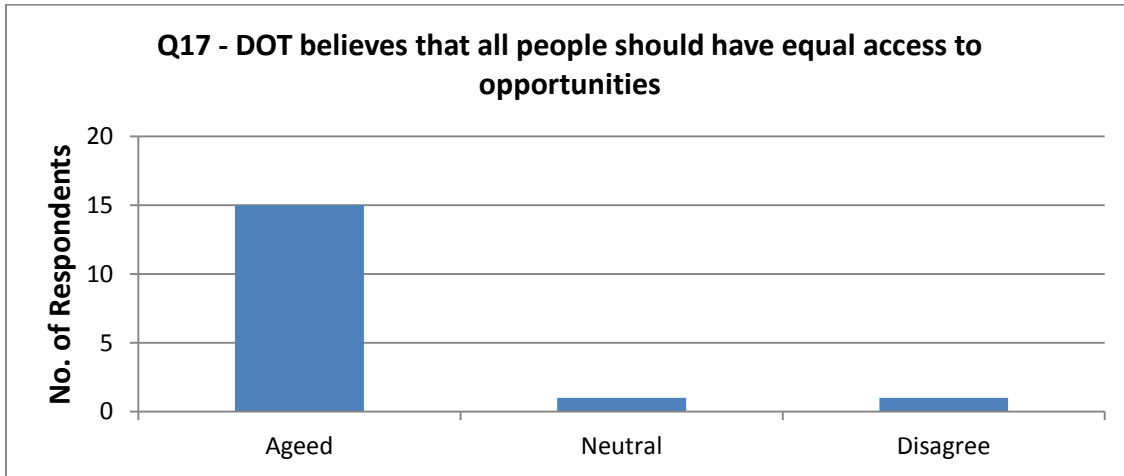


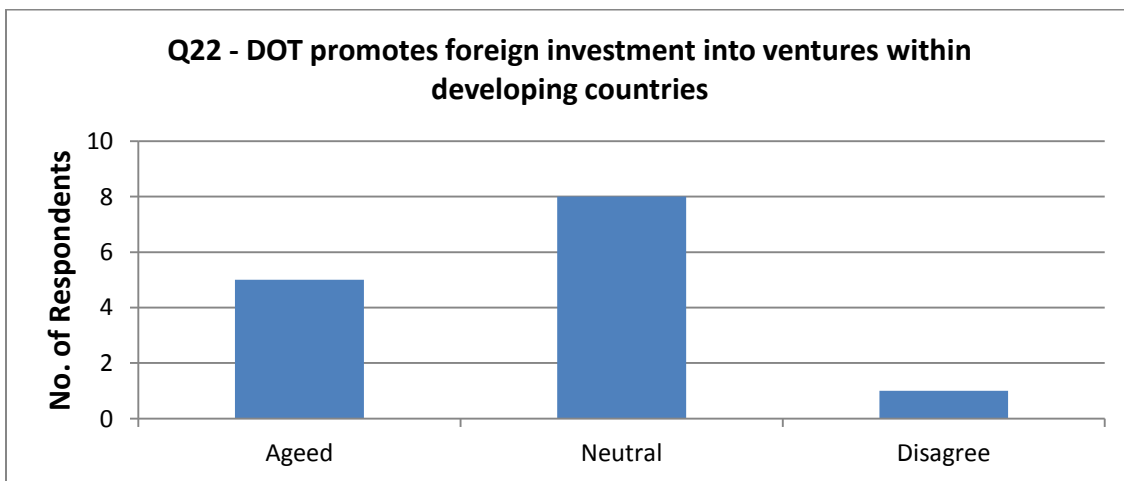
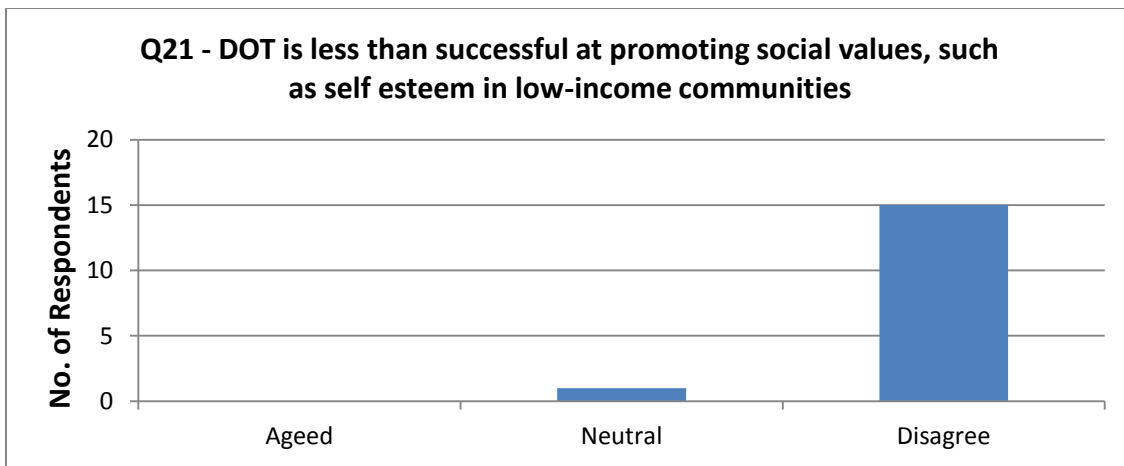
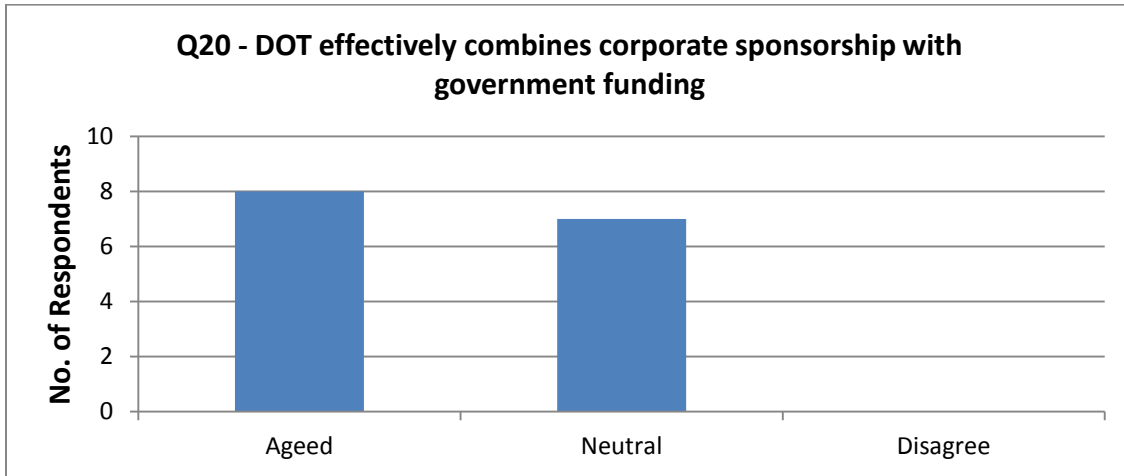


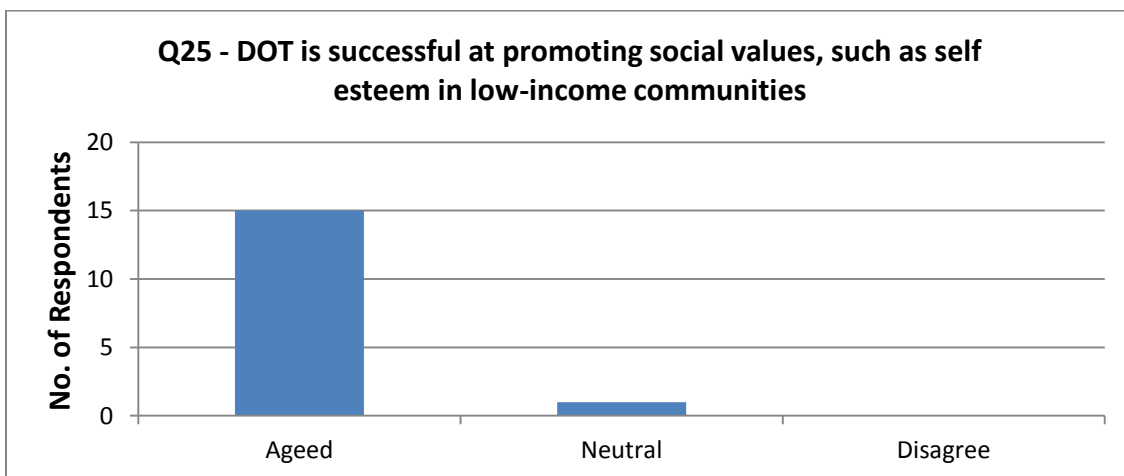
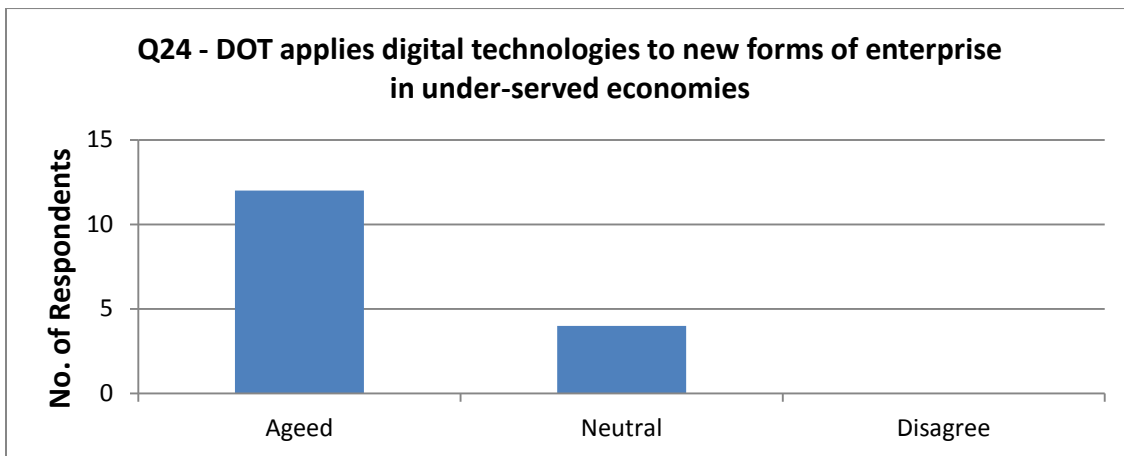
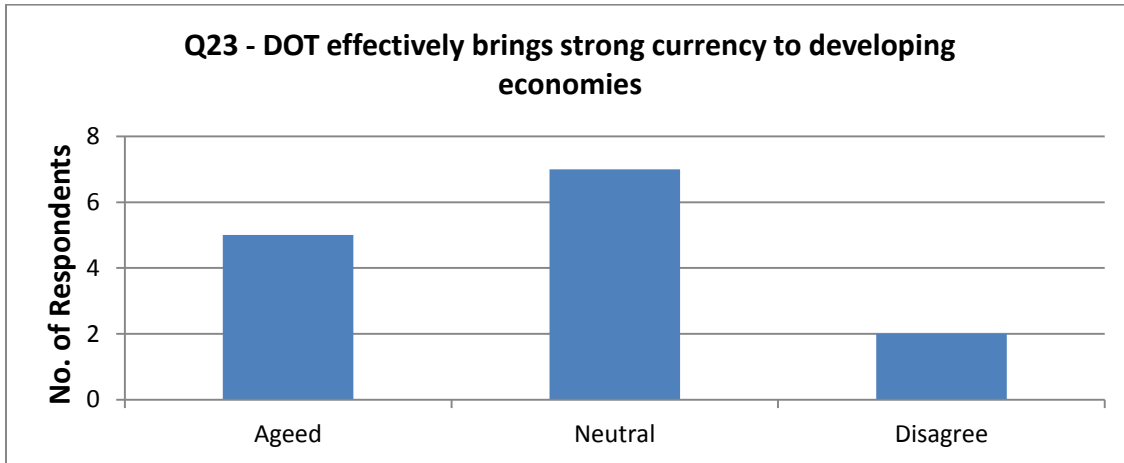


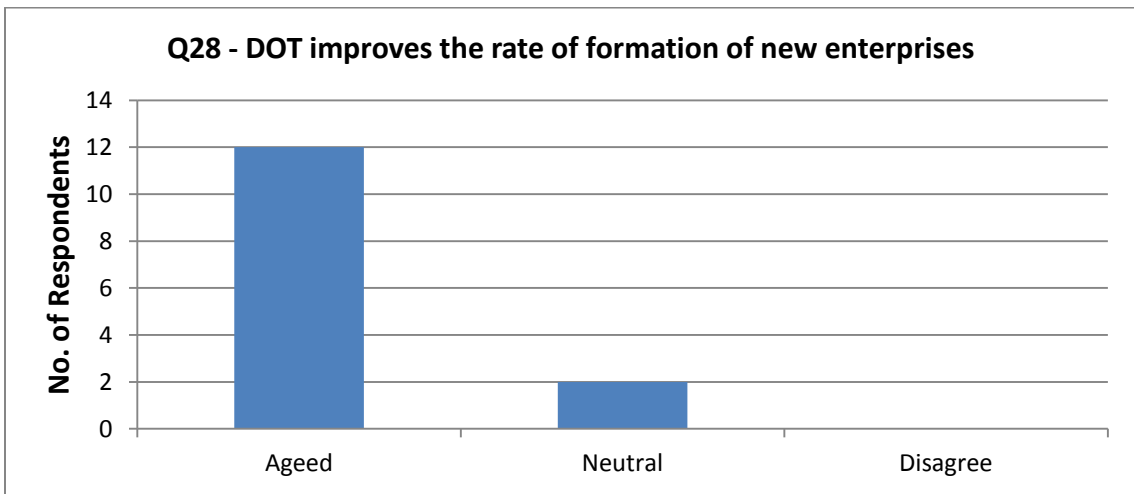
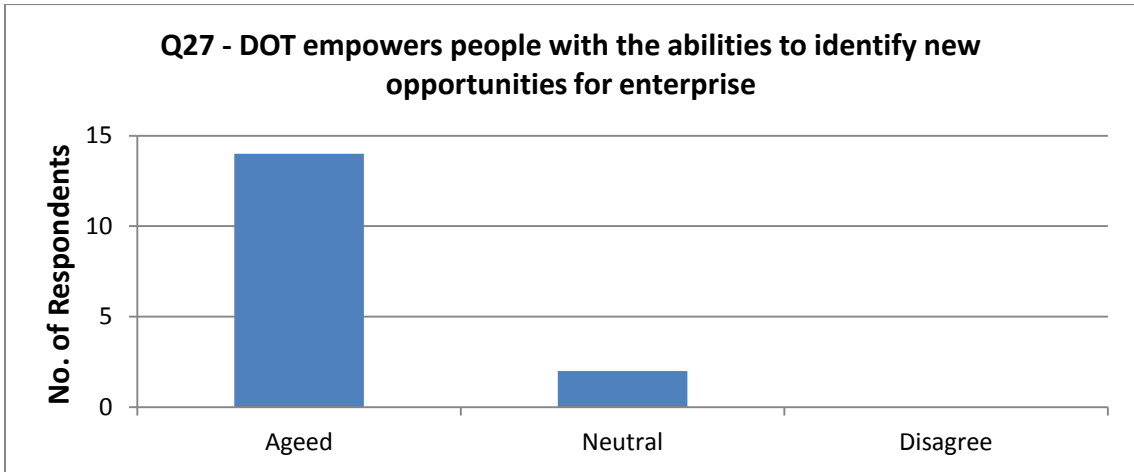
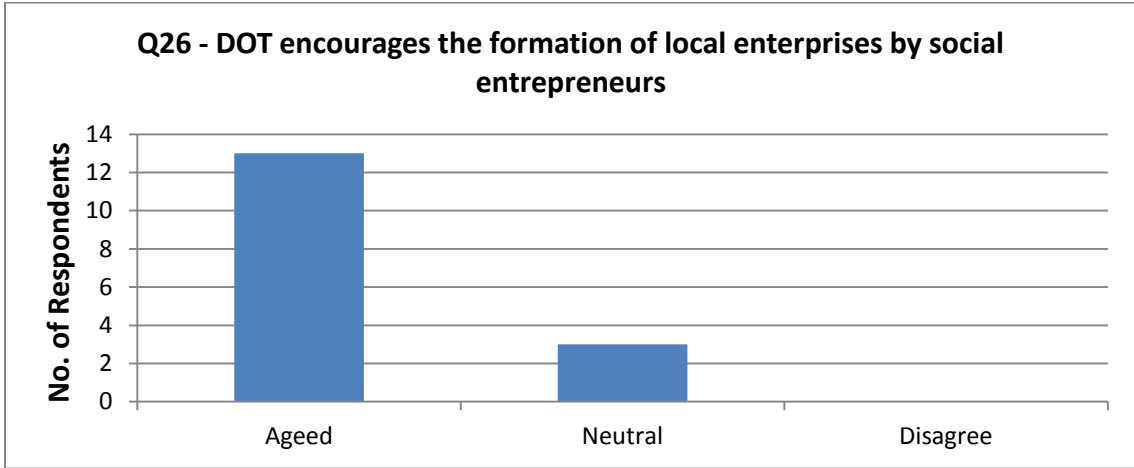


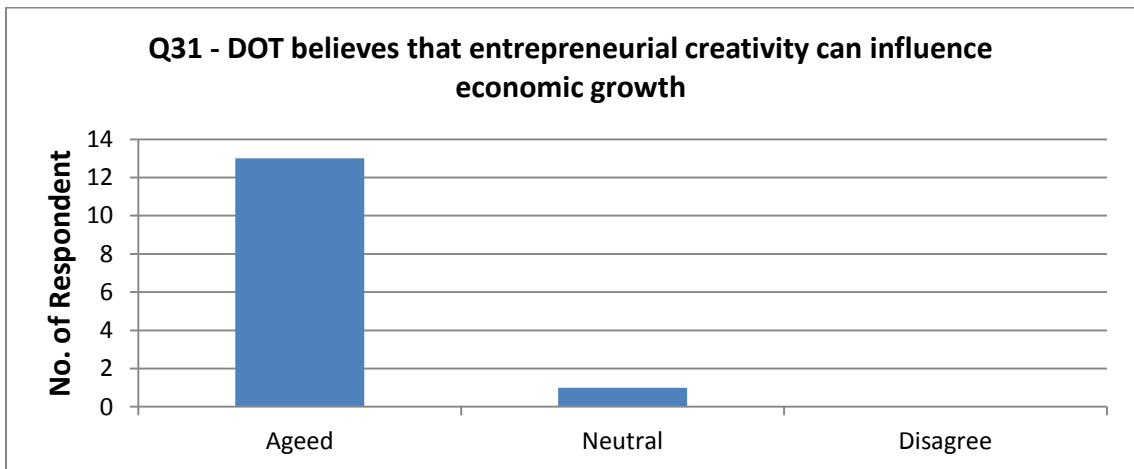
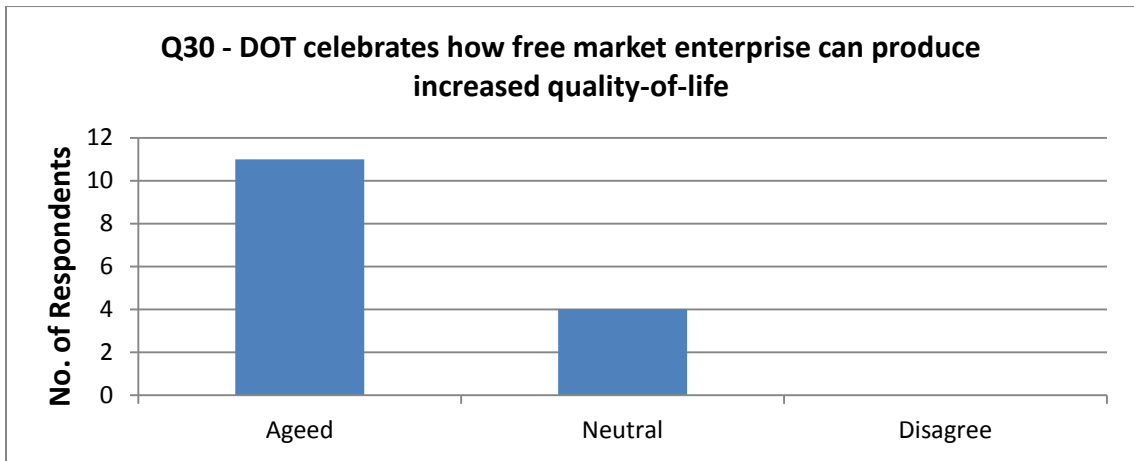
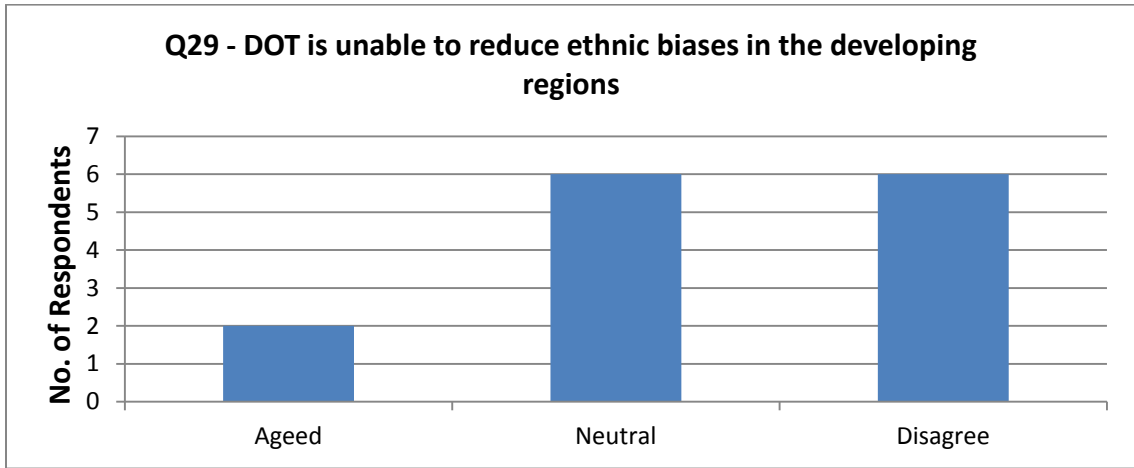


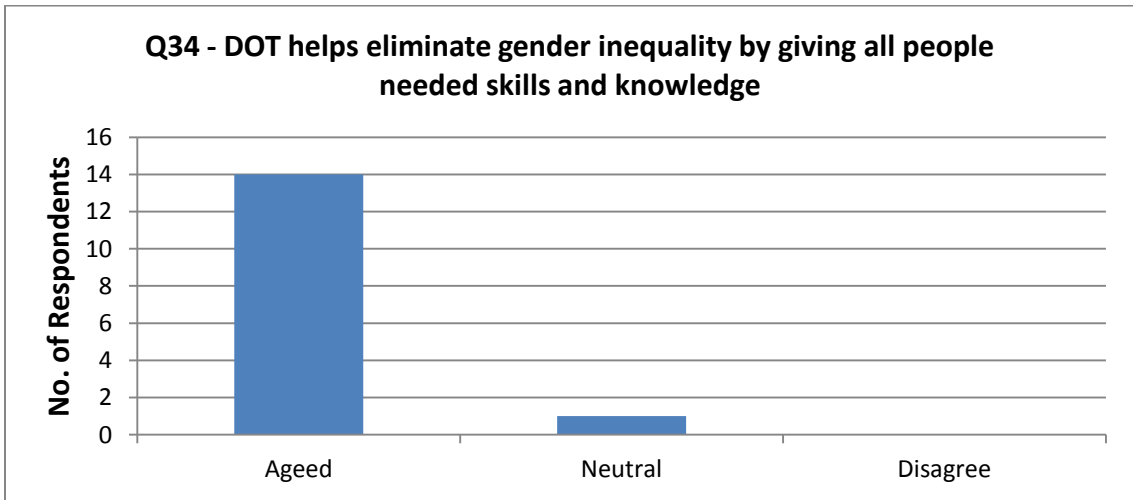
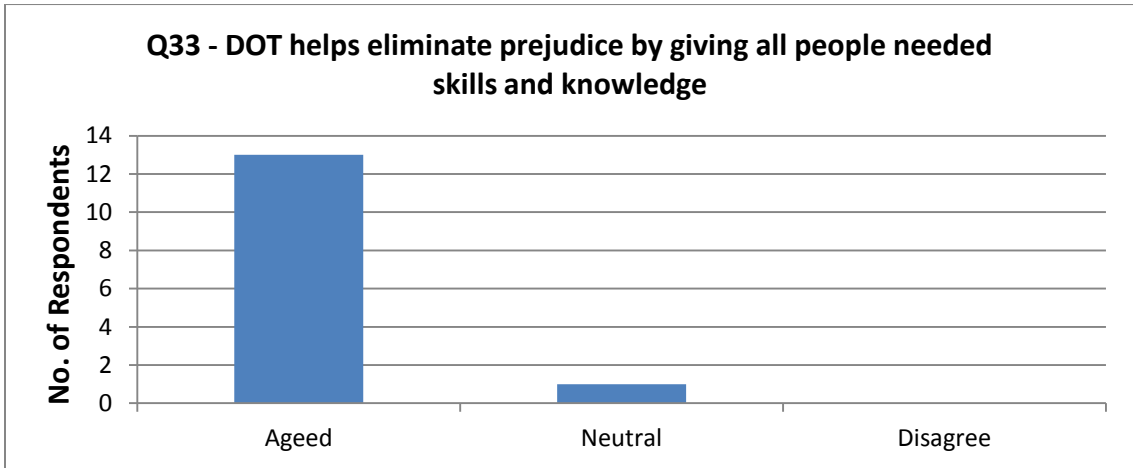
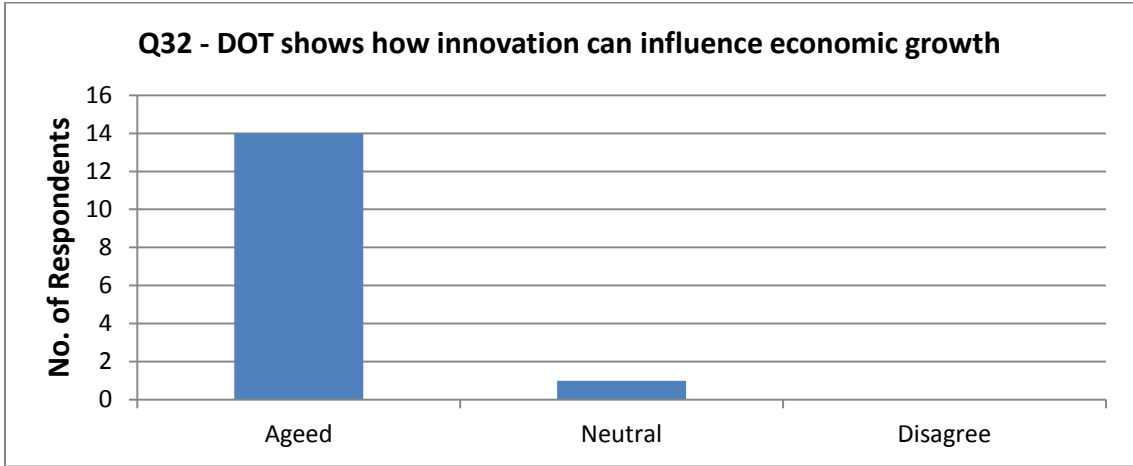




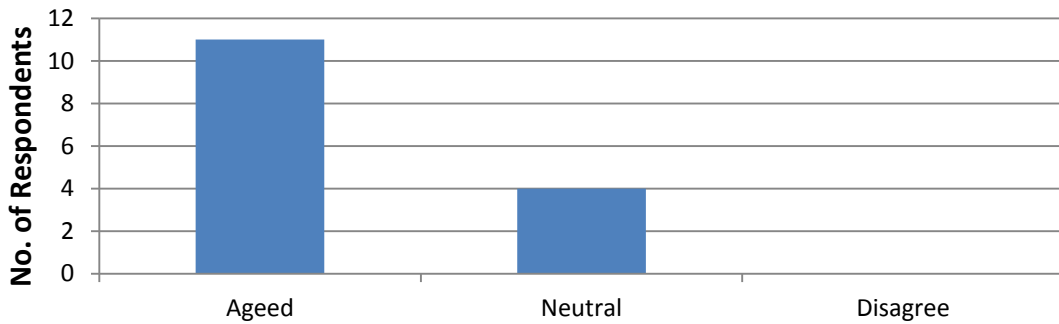




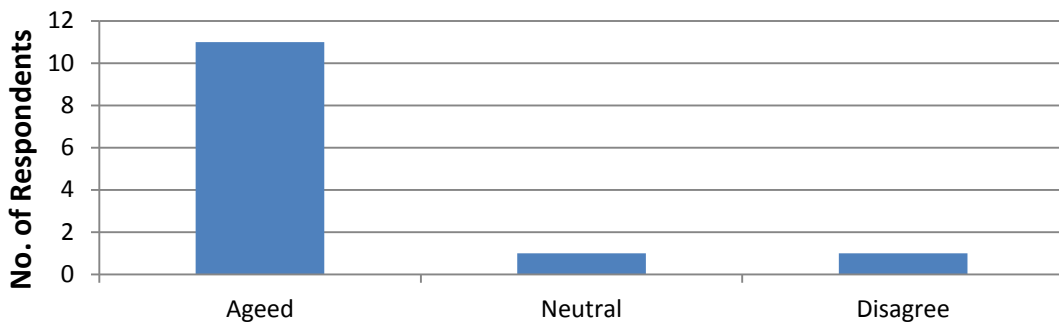




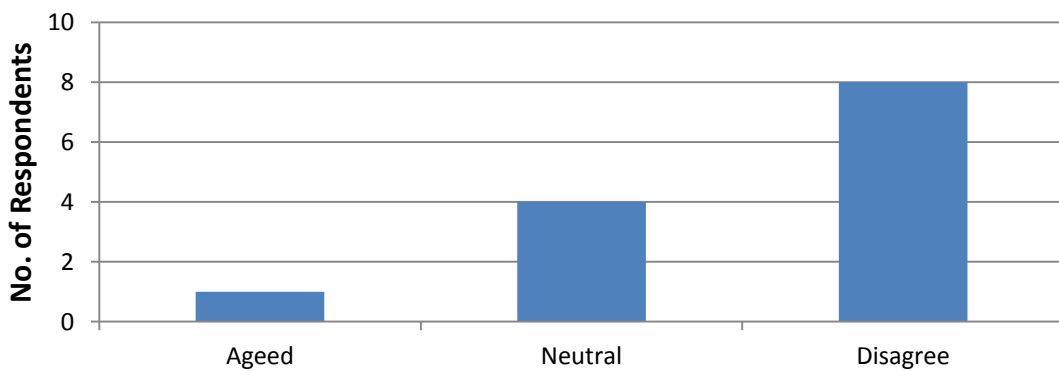
Q35 - DOT helps reduce poverty by giving all people needed skills and knowledge

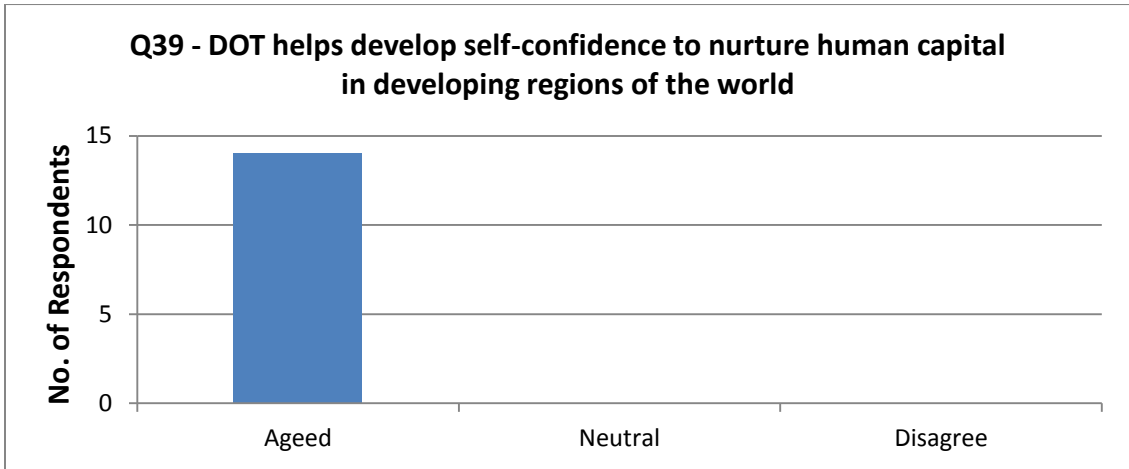
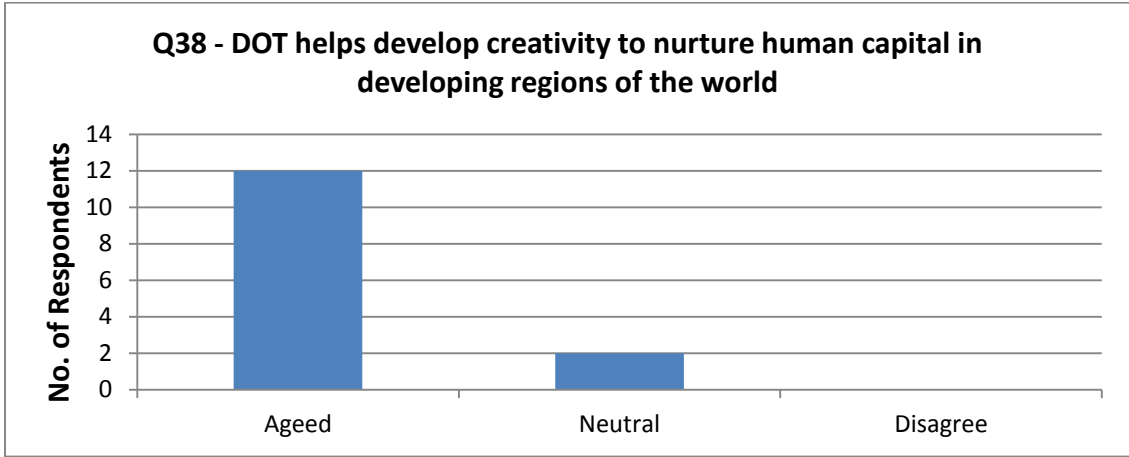


Q36 - DOT backs human potential among entrepreneurially-minded individuals in emerging economies



Q37 - DOT is less than successful at developing a civil society through development of local businesses in those regions





Appendix K

Elements	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Input / Extremely applicable				1	1										2	1		3	1						9		Extremely applicable
Input / Somewhat applicable	1			2		1		1							1										6		
Input / Not at all applicable																									0		Somewhat applicable
																									0		
Process / Extremely applicable	3	1	1	2	1	2	1	4	1	2					1	1	1		2				1		24		
Process / Somewhat applicable							1	1	1	1				1				1	2						8		
Process / Not at all applicable																									0		
																									0		
Outcome / Extremely applicable	2	1	3	1		2	1	1				3	1		1			1			1	1	3	1	23		
Outcome / Somewhat applicable	1		1	2					1	2	2	3	2											1	15		
Outcome / Not at all applicable														1											1		
																									0		
Impact / Extremely applicable	1	1				1	2								1	2		1	4		4	2	1	20			
Impact / Somewhat applicable									2		1	1			1	2			1	2		2		1	11		
Impact / Not at all applicable															1						2			3			

Appendix L

Q No.	N	Mean (Profit)	Std Dev (Profit)	Mean (Shared Value)	Std Dev (Shared Value)	Standard Error (Diff)	t-Statistic	p-Value	t-value	diff
1	8	3.125	1.364	3.000	1.581	0.738	0.169	0.435	0.413	0.022
2	8	3.500	1.000	2.500	1.118	0.530	1.886	0.051	0.120	-0.069
3	8	3.250	1.090	3.125	1.536	0.666	0.188	0.428	0.448	-0.019
4	8	3.625	0.484	3.500	1.000	0.393	0.318	0.380	0.408	-0.028
5	8	3.125	0.927	2.625	1.495	0.622	0.804	0.224	0.243	-0.020
6	8	3.375	0.696	3.125	1.452	0.569	0.439	0.337	0.299	0.038
7	8	3.000	0.707	2.750	1.479	0.580	0.431	0.340	0.356	-0.016
8	8	2.750	0.829	2.750	1.199	0.515	0.000	0.500	0.500	0.000
9	8	3.375	0.857	3.000	0.866	0.431	0.871	0.206	0.201	0.006
10	8	3.125	0.927	2.750	1.090	0.506	0.741	0.241	0.238	0.003
11	8	2.500	0.500	3.125	1.364	0.513	-1.217	0.131	0.139	-0.008
12	8	3.250	0.829	3.000	1.118	0.492	0.508	0.314	0.342	-0.029
13	8	3.125	0.927	2.750	1.090	0.506	0.741	0.241	0.238	0.003
14	8	3.375	0.857	2.625	1.317	0.556	1.350	0.110	0.182	-0.073
15	8	3.125	1.364	3.500	1.581	0.738	-0.508	0.314	0.357	-0.043
16	8	3.125	0.927	3.125	1.364	0.583	0.000	0.500	0.500	0.000
17	8	3.375	1.111	3.500	1.500	0.660	-0.189	0.428	0.438	-0.010
18	8	3.250	1.299	2.875	1.269	0.642	0.584	0.289	0.312	-0.023
19	8	2.875	1.166	2.750	1.479	0.666	0.188	0.428	0.381	0.047
20	8	3.250	1.199	3.500	1.323	0.631	-0.396	0.352	0.313	0.039
21	8	2.500	0.707	2.625	1.409	0.557	-0.224	0.414	0.413	0.001
22	8	3.125	0.781	3.000	1.323	0.543	0.230	0.412	0.408	0.005
23	8	3.500	1.118	3.625	1.111	0.557	-0.224	0.414	0.408	0.007
24	8	4.500	0.707	3.750	1.090	0.459	1.633	0.073	0.056	0.018