

## Mumbai Dabbawalas as Incubators for Social Entrepreneurs

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### Abstract

*This paper explores the ways in which Mumbai Dabbawalas operations can act as a model example to incubate and accelerate social entrepreneurship in Bangalore. Their delivery model has sustained for more than 130 years and their delivery standards were found to be better than six sigma level of excellence. The food delivery men make only one error in 6 million transactions. They adopt green logistics measures to deliver what the customer wants and believe that service to customers is akin to serving God. They have a strong sense of community orientation and the simplicity of their operations has made them endure for so long. However, the sweeping changes in India post-globalization has somewhat dented the demand for their services. Growing urbanization, influence of Western culture, services led industrialization and high levels of disposable incomes have made people opt for a wider variety of food services available today. Despite the above setbacks and competition for the business, the Mumbai Dabbawalas stand apart and are known for their service delivery excellence and social entrepreneurship. The paper makes an attempt to utilize the rich repertoire of experiences of the Mumbai Dabbawalas which can be gainfully applied for mentoring the aspiring social entrepreneurs in the field. This research has developed propositions in support of the argument that the Mumbai Dabbawalas can be effective incubators for aspiring social entrepreneurs. The objective of the paper is to propose a conceptual model by which the Mumbai Dabbawalas can successfully incubate social enterprises.*

**Key words:** Incubation, Mumbai Dabbawalas, Service Delivery Excellence, Social Entrepreneurship.

### Introduction

The Mumbai dabbawalas are food delivery couriers known for their excellent service delivery model and has six sigma certified by Forbes magazine. The food delivery men of Mumbai popularly called as 'Mumbai Dabbawalas' have become globally renowned after an article on them was published in Harvard Business Review in 2012. Later on, the visits by Prince Charles and Richard Branson (of Virgin Atlantic Airways) to meet them has further enhanced their popularity. But the dabbawalas' operation has been successful only in the island city of Mumbai and elsewhere similar attempts have failed to take off. The reason is not far to seek. The Mumbai rail infrastructure is the backbone of the dabbawalas operations. That apart, the dabbawalas have a simple and flat organisation structure, clearly delegated lines of authority, excellent team work and a remarkable sense of resilience. They have managed to withstand the market pressures resulting due to structural changes in India's economy after globalization. Their community orientation has a crucial role to play in their sustainability. Their passion for delivering food to the customers, treating the service akin to service to God and their logistics agility are exemplary. Noteworthy is the contrarian fact that despite not having profit as the main goal of their operation, they have managed to sustain their operations for more than a century. This research attempts to explore ways in which the Mumbai dabbawalas can act as successful incubators for training start-ups.

After the formation of a stable government in India in 2014, there is an increased impetus by the Government on encouraging start-ups, digitization and promoting fresh investments in the manufacturing sector through the "Make in India" campaign. The Companies Act was amended in 2013 to make it compulsory for businesses to invest in corporate social responsibility efforts subject to certain conditions. Though the number of start-ups in India has syelled in the last few years, most of them are in the IT domain. The numbers of social enterprises that have been established in India are few

and far between. Social entrepreneurs have heterogeneous needs that change with time. They have to rely on external support to grow their ventures. There is a research gap in terms of the know-how required for incubating and sustaining social ventures (Vandor et al, 2015).

The Mumbai dabbawalas have played the role of social entrepreneurs with perfect lean and panache with utmost humility. Ironically, the dabbawalas' efforts came to the limelight only after the Western world recognized their efforts. Prince Charles and Richard Branson appreciated their service delivery excellence and this flashed the spotlight on the simple food delivery men of Mumbai who believe in living a simple & uncomplicated life bereft of avarice that is characteristic of the modern world. Their collective wisdom and enduring business model make them the ideal resource for incubating & training social entrepreneurship ventures.

Despite the use of sound business principles by social entrepreneurs, there is dearth of academic research in the area of strategies of successful entrepreneurs. Why are some social entrepreneurs more successful than others? (Smith, 2015). A glimpse into the operation of Mumbai dabbawalas can expose us to their success strategies from which other start-ups can learn from. It is unfortunate that most researchers have labelled the Mumbai Dabbawalas as illiterate. Though this may be technically correct, the lack of proficiency in the Queen's language need not be a setback for entrepreneurs who are smart, intelligent, hardworking, perseverant, and resilient, committed and display a remarkable sense of customer focus. The fact that a unique codification system has contributed to their logistics excellence is ample proof of their ingenuity though the dabbawalas may not have had a formal education. This research has developed a conceptual model and propositions in support of the argument that the Mumbai dabbawalas can be effective incubators for aspiring social entrepreneurs.

## Entrepreneur and Social Entrepreneur

Entrepreneur is an agent of change, one who combines the concept of a product or service, or the use of available resources in an innovative way (Schumpeter, 1934). An entrepreneur is adept owner of a small business in a competitive environment who manages to create better management systems and who introduces new innovative products and processes (Gray, 2002). Entrepreneurs are individuals who operate an enterprise in the profit or non-profit sector and whose business behavior is characterized by innovation, growth, risk taking, reorganizing resources and creating work places. Entrepreneurship fills the gap between technological knowledge and innovations through creation of start-ups. (Nirali & Vijaylaxmi, 2014). An entrepreneur is someone who can create something that is truly exceptional. Strategy, the workability of the business idea, marketing & public relations, loyalty and expertise of employees, economic and political environment are the factors that contribute to the success of entrepreneurship (Csigas, 2015). In simple terms, an entrepreneur is a businessman who initially establishes his business venture with his own capital.

Essentially, the enduring quality of entrepreneurs is their ability to take risks. An entrepreneur must have the ability to deal with disequilibria. The behavior of human beings is governed in terms of the ability to manage constraints efficiently. Suppliers of labor services have allocative ability and efficiency – the ability to reallocate resources in response to changing economic conditions (Schultz, 1975). This is characteristic of the Mumbai dabbawalas when you consider their agility and flexibility in delivering the service. Internal strengths of an organization help them in dealing with the vagaries of the external environment (Manimala & Panicker, 2015).

Emerging economies are low income, rapid growth countries using economic liberalization as a means to achieve growth despite severe constraints. Due to problems like inadequate governance, poor infrastructure, difficulty in accessing funds and inconsistent policies of government, entrepreneurs have to face various challenges to set up and grow their ventures. The time and effort needed to deal with these constraints makes it rather difficult for entrepreneurs to deflect their focus on developing their innovative capabilities to market their products and services. This is the reason why incubation of aspiring entrepreneurs is crucial. Despite these challenges, emerging economies are more resilient than developed economies as is evidenced from economic recession in the past (Manimala & Wasdani, 2015).

Entrepreneurial leadership in India is a cumulative and social influence process which helps in the discovery, evaluation and exploitation of entrepreneurial opportunities. Successful entrepreneurs are enthused to achieve their goal buttressed by their commitment to the cause. They have good judgement and possess the ability to look at the wider

picture (Chopra & Sharma, 2012). Entrepreneurs decide to create a new venture based on their perceptions of the environment. So, policy makers have to factor this aspect. More favorable perceptions pertain to individual competencies, peer group support and the socio-cultural support (Manimala, et al, 2015). Incubational resources can only strengthen this perception.

Startups evolve through discrete stages of development. Each stage can be measured with specific milestones and thresholds. Learning is a fundamental unit of progress for start-ups. Leading indicators of a start-up's growth include customer development, product development, team, financials, business models and market. (Marmar et al, 2011). Startups therefore need incubation support in the initial stages.

There is a thin line between confidence and overconfidence among the entrepreneurs. Despite the high failure rate of many start-ups, new entrepreneurial ventures continue to abound and fail. As entrepreneurs develop confidence, they sometimes end up taking wrong decisions about resource allocation. They also take more risks. This increases the likelihood of failure of such entrepreneurial ventures (Hayward et al, 2006; Tang, Li & Liu, 2015). Entrepreneurs also end up setting highly ambitious and unrealistic goals which ends up in a sub-optimal performance for the organisation (Baron, Mueller & Wolfe, 2016; Hmieleski & Baron, 2009).

Social entrepreneurship is defined as a process of creating social value by combining resources in new ways (Mair & Marti, 2006; Mort et al, 2015). Social entrepreneurship is defined as the development of new social ventures with an organizational focus on both social impact and financial performance. The antecedent factors in an individual's decision to become a social entrepreneur are the need and the drive to achieve something and hence attraction for financial gains is secondary (Germak, 2015). What actually drives successful social entrepreneurship? A leadership style that has a long term vision, ability to innovate to translate the vision into reality and efficient management of resources defines and drives entrepreneurial success (Chopra & Sharma, 2012). Social innovation benefits from sharing knowledge. Success of an entrepreneur is determined by social capital which helps in knowledge management and in long term sustainability. Social capital has a profound influence on incubation, collaborative relationships and subsequent innovation. (Nicolopoulou et al, 2016).

Ordinary entrepreneurship aims to maximize owners' wealth through capital accumulation. Social entrepreneurs use the principles of entrepreneurship to create ventures that solve social problems and create social change (Kamath, Lee & Zhang, 2013). The four elements of social entrepreneurship have been identified as entrepreneurs, organizations, opportunities and ideas (Prayukvong & Hoopes, 2015). Social entrepreneurship adopts market mechanism to deliver social value through a proactive approach (Ishak, Omar & Moen, 2015; Mort et al, 2015). Social entrepreneurship refers to ventures that strive to create social value rather than profits. Social entrepreneurs initiate and lead change processes that veer towards growth (Swanson & Zhang, 2011). However, for social entrepreneurship to contribute to economic development and be sustainable, social ventures need to aim for profit too (Roy & Tripathi, 2015). Highly educated individuals are more attracted to social entrepreneurship. Higher education closes the gender gap for social entrepreneurship (Estrin et al, 2015). Students are passionate about making a positive difference to the lives of others and social entrepreneurship can prove to be the right platform for them. (Pirson, 2015).

Organisations that have a voluntary membership open to all, serve as examples of co-operative entrepreneurship. Community forms the base of activities. This can be classified under social entrepreneurship that serves the everyday and daily needs of ordinary people. As they have a social cause to address, the operations of such entrepreneurs are restricted to their locality and hence scalability of the business model is limited. Governance is achieved by instilling ethics, values and principles in employees and by holding employees accountable at all times (Patel & Vedula, 2006; Chopra & Sharma, 2012). As they have to reach more people with scarce resources, scalability of business model of social entrepreneurship needs an innovative approach (Bornstein, 2007). Social entrepreneurs are needed for addressing the development needs of the poor (Raman & Vijayalakshmi, 2015). Social entrepreneurship involves activities to enhance social wealth by creating new ventures or managing existing organisations in an innovative manner. (Zahra et al, 2009). Innovative solutions are needed to tackle social problems. (Swanson & Zhang, 2011). Social entrepreneurship combined with organizational capabilities leads to success of innovative efforts and sustained competitive advantage. Pro activeness and risk management are other dimensions of the business model (Mort et al.,

2015). Community action and social entrepreneurship can bring about social transformation. Emerging alternative options can complement each other (Daskalaki et al., 2015).

Dual identity social entrepreneurship (DISE) entails the creation of ventures wherein the founders attempt to create a strategic balance between social and economic value of the enterprise. Developing a financially viable business model is crucial for sustainability of social entrepreneurship (Busenitz et al., 2015; Abhi et al., 2015). The SLEN (sustainable local enterprise networks) approach developed by Wheeler focuses on development of self-reliant and sustainable enterprises at the bottom of the pyramid. These enterprises can function on their own without support from MNCs or domestic firms. Self organizing networks of local enterprises, nonprofit organizations and local community involvement contribute to the success of poverty alleviation programs and business development efforts at the bottom of the pyramid (Kamath et al., 2013).

Social entrepreneurship is positively related to networking capability. Social interaction ties represent the structural dimension of social capital. Social interactions are the channels for information and resource flows. It is due to social interactions that innovators can go across formal lines and levels in the organization to find what they need. Social capital of an entrepreneur relies on shared vision which represents the collective goals and aspirations of the members of an organization. Shared vision increases the entrepreneur's capability of networking (Mort et al., 2015). A shared sense of social value resulting from networks between humans and institutions also increases the possibility of success in scaling up the operations (Hausmann, 2015). Social workers practice social innovation, social intrapreneurship and social entrepreneurship. As nature of clients' problems keep changing, social workers have to act like change agents (Nandan and Bent-Goodley, 2015). Co-operative entrepreneurship has a social orientation and a community feeling which acts as the real driving force (Chopra and Sharma, 2012). The dabbawalas' model can be cited as an example of co-operative entrepreneurship.

Thus, there are subtle differences between an entrepreneur and a social entrepreneur. Both of them need incubation support and network benefits while the later being most important. For social networks to be strengthened, an entrepreneurs need to develop social capital and a shared sense of social vision. This can open up the channels of communication between institutional frameworks and aspiring social enterprises leading to a sustainable social enterprise.

### **A Brief History of Mumbai Dabbawala Operations**

The operations commenced in 1890 by a group of people from the similar ethnic background in Pune and it was characterized by cohesive community bonds. Comparisons can be made to a modern guild where work and social identity; devotion and economic gain; and mutual aid and shared goals are indistinguishable from one another (Roncaglia, 2013). As per the historical evidence of the organization, the practice of delivering the tiffin boxes started from Havji Bacche, a young man from Pune who entered Mumbai in the late 1880s. A Parsi banker employed Bacche to visit his home in Grant Road, Mumbai, collect the tiffin and deliver it to his office in Ballard Pier. It was during 1890s when the events took place when the British were colonizing India. Parsee women had begun cooking food in their homes and were making money/business out of it. But these women found commuting to be a hindrance to their cooking business. During those times, there was also no dearth of unskilled workers and often many were found at cross roads, sitting there with their topis or hats on without any work. Hence, one day it was a coincident that one of the women asked one such laborers to deliver food and he willingly agreed. He started carrying 20-25 tiffins from Girgaon to VT station (Roncaglia, 2013). Bacche was impressed by this trend and decided to recruit his fellow villagers for the delivery service in pursuit of creating an organized working group.

### **Organisational Structure of Mumbai Dabbawalas**

Mumbai Dabbawalas is a flat organisation with three hierarchies of authority and a decentralized structure. There are 5000 workers and 800 mukadams. Executive committee is involved in conflict resolution; setting the agenda and administering the welfare activities. They have a corporate code of conduct. Their rules include that no customer should go without food. The time table of the railway system and the common delivery deadline for the tiffins coincides and creates a natural clock speed into the delivery operations. Their meticulous timing and coordinated team-work contribute to their success. Teams share a common agenda with each other (Balakrishnan and Teo, 2008).

Efficient inner organization, trust, loyalty, common ownership and equitable share of wages have played a crucial role in the success of the Mumbai dabbawala operation (Csigas, 2015). The hierarchical levels within the organization include dabbawalas, mukadams, directors, treasurer, secretary and President. The second line of operations is coordinated by over 800 mukadams who supervise the tiffin route as far as the final delivery. The mukadam participates in the recruitment of new dabbawalas assessing their suitability by considering both their reputation and shared origins with other members of the organisation. Forming a culturally homogeneous group allows members to identify with a shared religious and historical tradition. Each area of Mumbai served by the dabbawalas has a director. The areas are defined in relation to a railway station. The directors are in contact with one another and ensure that there are no problems in distribution. They don't have an office, but work on trains, station platforms, dabba handover areas etc (Roncaglia, 2013).

Spiritual values are combined with business values. The Varkari samparadaya (of which the dabbawalas are ardent followers) way is to live, earn and work correctly. These delivery men resolutely believe in eschewing illegal means to earn money. The dabbawalas enjoy their work, share a unique sense of bonding with their fellow workers and treat their work as worship. They are able to communicate in their own language essential to address their business needs. Despite the hard labour, there are lower levels of stress (Menon et al., 2012; Krishnan, 2014). They are less ambitious and live by simple rules characterized by lack of avarice. The dabbawalas have also been involved in constructing dharamshalas (or free transit accommodation services) at places like Alandi and Bhimashankar. This can be considered as effort by the Mumbai Dabbawalas in fulfilling their obligations towards social responsibility (Roncaglia, 2013).

The three less successful strategic orientations for business organisations are Self-centered trap; Customer compelled trap and Skepticism trap. When a firm takes its place in the market for granted, it leads to a self centered trap resulting out of complacency. Customer compelled trap is not unusual. For example IBM wanted to satisfy large and medium sized customers in the early 1990s resulting in an incoherent offering. This can be called as a customer compelled trap. Likewise market research can often be misleading and this leads to a skepticism trap (Day, 1999). However, the dabbawalas through their ingenuity, managed to steer clear of these traps. Besides they have also overcome co-ordination and delivery hurdles that emerge with changing times. The team members have slack capacity. Substitutability among the members in a team is easy. Flexible manpower deployment at the destination ensures operational accuracy. More than one team operating in an originating train station ensures internal competition and operational efficiency (Ravichandran, 2005).

### **Service Delivery Model**

Supply chain is an integrative process used to create and sustain competitive advantage based on the delivery to customers of basic and unexpected services (Bates & Slack, 1998). Proper matching of supply with demand coupled with a reliable logistics system has been the hallmark of Mumbai dabbawalas (Baindur and Macario, 2013). Similarly, jugaad innovation is a type of innovation that helps in dealing with economic and resource constraints in an efficient manner. The delivery model of Mumbai dabbawalas is furnished in Figure 1, which exemplifies a classic example of Jugaad which is a low cost service innovation model (Nirali and Vijaylaxmi, 2014; Roncaglia, 2013).

Redefining the logistics process for optimizing the links between different actors and improving efficiency through better co-ordination has resulted in improved customer service. In 1998, the American magazine Forbes conducted a study of the dabbawalas service and awarded the organisation a six sigma with a 99.9999% accuracy rate (Roncaglia, 2013). Less than 6 errors are reported in 13 million transactions (Ravichandran, 2005). Their core competency is on-time, cost effective and reliable delivery services (Balakrishnan and Teo, 2008; Patel and Vedula, 2006; Csigas, 2015). The consistency of the delivery process has made it enduring for so long (Bondre, 2013). The planning, implementation and monitoring of delivery operations is done in an impeccable manner (Roncaglia, 2013). Adding to the above advantages, studies reveal that delivery of home-cooked food strengthens the nutritional ties between family and work. No external catering service can ever hope to match that level of quality as home-made food has that ingredient called love (Chakraborty and Hargude, 2015).

### **Hub and Spoke Model**

Hub and Spoke model is used for distribution operations of the food delivery service. The logistics network is a combination of milkman route, hub to hub transfer and hub to spoke distribution. The operations employ a judicious mix of

transportation economics. At the collection point, it is a milk man route structure. This, supported by a hub-hub transfer to handle large volumes, reduces operational cost. At the destination it is hub-to-spoke to ensure response time and handle volume flexibility. The rail infrastructure ensures flexibility and lower cost of operation (Patel and Vedula, 2006). There is perfect symmetry in the reverse logistics operation (Ravichandran, 2005; Balakrishnan and Teo, 2008).

Time is essence and delays are not just possible. On an average, each dabbawala is responsible for collecting 30-35 dabbas, the number depending on personal ability to memorise customer addresses and the physical strength for carrying the tiffin baskets. Dabbas have to be loaded quickly in the 30 seconds the train stops on the platform. If the trip is very long and includes a line change, the dabbawalas in charge of the final delivery takes their own dabbas to a collection and sorting point. There are several strategic nodes near railway stations that serve as main centres for final sorting. Mukadam supervises the efficient coordination of the delivery. (Roncaglia, 2013)

The third stage is the final delivery from the strategic collection point – the cooked lunch is taken to the place of work of the “receiver-customer” at about 12.30 pm. The tension gradually eases and the dabbawalas can rest, eat their lunch and also prepare to make the journey back following a circular route that begins and ends in the same way every day of the week except Sunday (Roncaglia, 2013). To save time, the delivery of the lunch boxes is consolidated at the floor level at the consumer location. The customers also participate in the last step of the lunch box delivery process and also in the initial step. Information on collection route is known to every other member in the team and so exigencies if any are well-managed (Ravichandran, 2005).

The dabbawala operational performance measures are real time, transactions based. Every transaction is monitored in terms of its collection, transportation and delivery. Periodic revenue collection and volume-based employee productivity ensure a model that is self-corrective (Ravichandran, 2005). Flexibility is the hall mark of the operations.

The dabbawalas' elegant logistics system involves 25 km of public transport and 10 km of foot work involving multiple transfer points. The dabbawalas use the rail network very effectively by employing simple, straight rules mostly north-south and limit sorting to a few central points. This is the key to the dabbawalas' efficiency and success (Patel and Vedula, 2006; Chopra and Sharma, 2012). The dabbawala services can also be cited as an example of green logistics services (Bondre, 2013) (Roncaglia, 2013) that demonstrate a high level of technical efficiency (Chopra and Sharma, 2012).

### Unique Coding System

Though the dabba may change hands as many as six times, it is this coding system that is easily deciphered by the illiterate dabbawalas that makes the system flawless and ensures seamless movement of dabbas (Balakrishnan and Teo, 2008). The system limits the routing and sorting to a few central points. A simple colour code determines not only packet routing but packet prioritizing as lunch boxes travel from train to bicycle and from bicycle to foot. The process gets united at the delivery end though it may appear bit competitive at the customer's end (Chopra and Sharma, 2012).

### Entrepreneurial Abilities of Mumbai Dabbawalas

Each dabbawala considers himself a shareholder and entrepreneur. From a social standpoint, the system enhances work place conditions by providing a good place for employee development through mentorship and trust (Patel and Vedula, 2006).

A sustainable enterprise is one which is aligned and co exists with society, environment and financial opportunities available in the market-place through the model/systems of strategy, leadership, innovation and technology (Patel and Vedula, 2006). Use of a modified network framework combined with the entrepreneurial spirit of Mumbai dabbawalas has led to sustainability of the dabbawalas operations (Kamath, Lee and Zhang, 2013).

Systems theory calls for an integrated approach to technological innovations. It refers to a system as a whole that can't be taken apart without loss of its essential characteristics and hence must be studied as a whole (Ackoff, 1972). Without the coding system, the delivery risks increase and aggravate. In the absence of a flexible operational model the dabbawalas system would have been relegated to the pages of history. The dabbawalas operations also signify innovative entrepreneurship (Kulkarni, 2015). This innovation has spanned the entire value chain of Mumbai dabbawala operations.

The Mumbai dabbawala business model which is given in Figure 2, is an epitome of simplicity, efficiency and dedication. The dabbawalas have a mission to serve the society driven by their entrepreneurial instincts and this is what acts as drivers of their performance (Chopra and Sharma, 2012). These entrepreneurs have unintentionally internalized features of efficient supply chain management (Roncaglia, 2013).

The focus has to be on the actors who co-create services with local communities to deliver strategic value who are in the bottom of the pyramid environment (Ben & Reynoso, 2015). Haji Bacche who conceptualized the dabba delivery model executed it serendipitously.

However the success of the Mumbai Dabbawalas has not spread to other cities. One of the reasons for the failure of other cities to replicate the model is the absence of several structural elements which is characteristic of Mumbai city missing in other Indian urban contexts. They include extensive transportation network, a large working class using the mass transportation and cultural unity of the dabbawalas (Roncaglia, 2013). This makes it difficult to imitate the service in other cities in the similar form and strategy.

## Incubators

There are different categories of incubators related to technology commercialization, economic development and entrepreneurship. Incubators can have different priorities. The first priority is how they can train start-ups in becoming models of self-sustainable business development. The second priority involves ensuring collaboration between industry and academia to support business investment and growth. The other priorities like employment generation and creation of a congenial environment for the growth and development of the start-up are equally important and relevant (Al-Mubarak et al, 2015). A business incubator accelerates the growth and success of start-ups by providing resources, physical space, coaching, and access to capital and connection to networks. Incubators help start-ups assess and evaluate risks in the initial stages of developing the business. Start-ups can face challenges such as inability to recruit skilled staff, absence of strategic management, lack of processes and inadequate funding.

Incubators facilitate exchange of ideas and technologies between entrepreneurs. A study published by the German Society for International Co-operation states that the incubator market in India is still in a nascent stage. There are very few social enterprise incubators and ecosystem of Mumbai Dabbawalas is equipped to mentor the aspiring social entrepreneurs. The dabbawala system works on the four pillars namely organization, management, process and culture. Their unique coding system and its simplicity has led to its enduring existence.<sup>[2]</sup> Their strategic orientation as incubators is essential and could be useful for the budding social entrepreneurs in the similar or related filed.

## Research Methodology and Questions

This is a conceptual review paper based on a comprehensive literature review of the Mumbai dabbawalas operations and the need of social enterprises. The paper builds on theoretical framework and presents propositions. The objective of the paper is to propose a conceptual model by which the Mumbai Dabbawalas can successfully incubate social enterprises (supported by evidences from literature). Some of the research questions the paper intends to explore include. What aspects of Mumbai dabbawalas operation endear them to act as incubators of social enterprises? How can the service delivery model of Mumbai dabbawalas can be gainfully employed in other types of social enterprises? Can the Mumbai dabbawalas provide value added services as an incubator to aspiring social entrepreneurs? How can incubation be a possible strategy for replicating the dabbawalas' success in Bangalore? How can incubation of a social enterprise contribute to its sustainability? How can networks aid the success and sustainability of business enterprises? Although not all the above questions have been addressed completely, there are two specific areas where the Mumbai dabbawalas can act as incubators which have been highlighted.

## Theoretical Framework

### Network theory

Organizational theory focuses on individual organizations instead of actions. This lacuna is addressed by social network analysis. Firms interact with each other as their boards are involved with one another. As organizations interact,

networks develop. Social network analysis helps in understanding the interactions organizations have and how the relationship develops over a period of time and proves to be beneficial to other organizations in the network (Salancik & Burt, 1995).

## Structuration Theory

Social life is not determined merely by social forces. Social structure results from acts of individuals. But this structure – be it traditions, institutions, moral codes, established ways of doing things etc can be changed if people start ignoring them or replacing them (Giddens, 1984). Social entrepreneurs need to develop networks to grow business and sustain the operations. Following the incubation, social enterprises need accelerators to grow the business in a measured way and they can also enhance the social networks. This can be a strategic move as knowledge gets transferred and relationships are nurtured. Taking a cue from structuration theory, one can claim social entrepreneurs act as actors. Through their actions to comply with business ethics, moral code of conduct and better governance, they lay the foundation of an enduring social enterprise that can be resilient to cyclical depressions/ recessions in the economic landscape.

## Propositions

The logistics system of Mumbai dabbawalas has been difficult to replicate. Proper matching of supply and demand is one crucial aspect of the Mumbai dabbawala system. The dabbawalas have developed a logistics system that is reliable and affordable (Baindur & Macario, 2013). The Mumbai suburban rail infrastructure, the unique coding system of the Mumbai dabbawalas, the flexibility of the operations, the environmental friendly and the cost effective delivery model etc are the crucial aspects that can act as treasure troves of information for training new social entrepreneurs. It is a delivery that is accurate to the point of having achieved the six sigma certification and hence serves as a unique model for the rest of the world. The dabbawalas are integral part of the Mumbai culture and have established a bond with the people and society. Community feeling within an organization represents a sense of belonging to and caring for something outside the boundaries of the work place. Based on this, we can arrive at the first proposition:

**Proposition 1: A supporting infrastructure, unmatched service delivery excellence, community orientation, environment friendly operations, matching of supply & demand and operational flexibility are critical aspects of the dabbawalas operation that qualify them to be incubators for social enterprises.**

5000 dabbawalas make about 4 lakh transactions per day for a cost of \$4 per month per dabba. Certainty and predictability of the operation and simplicity of the design has contributed to the sustainability of the operation. The service delivery model of the dabbawalas is characterized by error free delivery, a unique coding system and transactions that are repetitive. This makes it easy for the team members to cognitively absorb the process (Patel & Vedula, 2006). Those enterprises intent on delivering social value can benefit from a simple design, predictability of the operations and a delivery process that can be easily assimilated by the team.

**Proposition 2: The delivery execution model of Mumbai dabbawalas can be emulated by social enterprises where the operations are predictable, operational design is simple and a delivery process can be easily absorbed by the team members.**

Business incubation can increase the likelihood that new ventures will survive the early stages of development. Incubator is an entrepreneurial firm that manages the innovation process within emerging organizations helping the latter to acquire resources. (Hackett & Dilts, 2004).As incubators, the Mumbai dabbawalas can provide support to social entrepreneurs in terms of dealing with vulnerabilities in the initial stage. If we trace back their error-free delivery mechanism, it is clear that there is clear accountability and delegation of authority in the Mumbai dabbawalas authority.

As the dabbawalas belong to the same community and share the same language, work ethic, values and religious beliefs, there is greater bonhomie and trust among the dabbawalas leading to very few interpersonal skirmishes. It is clear that the food delivery men do not want to dilute their core competence.<sup>[2]</sup> Strength of the relationship between different actors involved contributes to the success of the service delivery model (Windahl & Lakemond, 2006).

The dabbawalas have steadfastly adhered to their core competence (the service delivery\*excellence) and eschewed the temptation to start a catering service. Delivery is and has always been their forte. They are aware and been

receptive to the use of technology to improve their services. The innovations that they have implemented can add immense value to aspiring social entrepreneurs. Thus, transfer of tacit knowledge of Mumbai dabbawalas can benefit social entrepreneurs.

**Proposition 3: The Mumbai dabbawalas can provide value added services to an aspiring social entrepreneur due to their innovative ability, error free delivery model and steadfast adherence to their core competence leading to effective transfer of knowledge.**

It is not possible to replicate the success of Mumbai dabbawalas in other metros due to the lack of infrastructural support. Delivery of home cooked food establishes bonds between family and work. The success of the business model is based on the following factors: trust between the dabbawala and the customer; ability of the work group to deliver lunch on time; excellent reputation for reliability and punctuality; and finally on the organisation's ability to interact with the city's cultural fabric. It is important for entrepreneurs to recruit and select people who are like minded (Roncaglia, 2013). Besides the infrastructural support, there are other aspects of the Mumbai dabbawalas' operations system that serve as a perfect learning ground for aspiring social entrepreneurs.

Effective mentoring between the incubator and the start-up is the hallmark of a successful relationship between the two. Incubators can also act as mentors for which an appropriate climate has to be created. Effective mentoring relationship relies on aspects such as experience and empathy, intensity and interest, transparency and development of both individual and society. A structured thinking process is essential to encourage the engagement of contrarian views (Raman & Vijayalakshmi, 2015). With their experience in food delivery service spanning more than a century, and their logistics expertise that has been awarded with a six sigma certification, the authors argue that incubation can be a possible strategy for replicating the dabbawalas' success in Bangalore albeit with certain modifications.

**Proposition 4: Incubation can be a possible strategy for replicating the dabbawalas' success in Bangalore.**

Incubation helps a start-up in addressing the risks at an earlier stage and helps them to cope with vulnerability. Incubators can share knowledge, provide access to intellectual capital and financial capital and train startups in an innovative approach to deal with scarcity of resources. More importantly, the experience of incubators in strategic management can be invaluable to an aspiring social entrepreneur. This leads us to the next proposition.

**Proposition 5: Incubation of a social enterprise leads to its sustainability.**

Social innovation benefits from sharing knowledge. Success of an entrepreneur is determined by social capital which helps in knowledge management and in long term sustainability. Social capital has a profound influence on incubation, collaborative relationships and subsequent innovation (Nicolopoulou et al, 2016). Market-based organizations can create positive social change. (Stephan et al, 2015).

Networks with multiple stakeholders who share the social vision are equally important as effective resource deployment (Abhi, Venugopal and Shastri, 2015). Social entrepreneurship networks require an understanding of the interaction between social actions and institutional conditions that support social value creation. The collective impact of social entrepreneurship networks lead to sustainability. These networks co-evolve with the environment over time.

Collective efforts involve tensions that make entrepreneurs knowledgeable about novel network structures to achieve scale (Hausmann, 2015). Increased interactions due to social networks increase the chances of success, sustainability and scalability. Networks can also help social enterprises to maximize their impact (Kumar, 2010; Mair and Marti, 2006). Networks also help in collaborative information sharing (Goldstein, Hazy and Silberstang, 2010). Networks promote greater sharing of knowledge and best practices among the organisations. Enterprises learn from each other instead of reinventing the wheel. This leads to the conceptual model that argues that networks can aid the success and sustainability of social enterprises. This is given in Figure 3 and 4.

As social entrepreneurs themselves, the Mumbai dabbawalas are ideally suited to be incubators for aspiring social entrepreneurs.

## Observations, Findings & Recommendations

Based on the literature review and from the propositions stated above, it can be stated that the Mumbai dabbawalas can act as incubators for aspiring social entrepreneurs. The dabbawalas may not be able to provide any sort

of financial support to new start-ups but they can play a crucial role in knowledge transfer in areas such as risk assessment and customer focus. They can act as a lead example for a service delivery model that benefits from organizational flexibility and known for community orientation. Generally it is opined that for social entrepreneurship model to sustain, a for-profit motive is essential. But the Mumbai dabbawalas have disproved the world by sustaining their operations which is driven by mere passion, customer focus and service delivery excellence for several decades. There are two areas of social entrepreneurship where Mumbai dabbawalas' experience namely innovative spirit and service expertise which can prove to be extremely beneficial in the incubation efforts.

### **Dabbawala service in Bangalore**

There are ample differences between Mumbai and Bangalore also known as the Silicon Valley of India. Mumbai boasts of a well-connected suburban railway network while Bangalore has been struggling to create one largely due to lack of political will. The Metro rail network connects the city in parts and serves no major role in reducing transportation bottlenecks. Additionally majority of the population in Bangalore use their own vehicles to reach the work place and some also carry their home-made food to office. The new found prosperity of this city (once called as the pensioner's paradise) is ideal destination for a booming migrant population who work in software companies and business process outsourcing centers. This segment of the dynamic population has created a need for variety of food delivery services. The proliferation of darshinis, fast food junk joints and swanky restaurants in Bangalore are innumerable and large part of the migrant working population who constitute the software community have the ability to splurge money at these eating places. Besides, most companies in Bangalore also provide good quality food to employees through their in-house canteens. One cannot ignore the power of social media through where people can order any food of their choice instantly through an app. The above factors are likely to make the success of a food delivery operation similar to Mumbai dabbawalas a remote possibility. Critics argue that in such a scenario, it is impossible to replicate the Mumbai dabbawalas system in Bangalore. However, there is a hope that it might be a possibility as people are more health conscious in the recent times and well aware of the hygiene issues. Hence there is likelihood that people in Bangalore may embrace the Dabbawala system of food delivery to alter their lifestyle for better.

Bangalore being an IT hub, the job related stress is high. Bangalore is also labeled as the "diabetes" capital of India. Diabetes is a lifestyle disease that results from lack of physical exercise, obesity and consistent consumption of junk food. Consumption of food that is high in calories can exacerbate the health related complications like hypertension and diabetes. The problem of people not having access to healthy and hygienic food prepared at home can be addressed by implementing the Dabbawala system of delivery services in the city. Keeping this in mind, the proposed model looks at replicating the Mumbai Dabbawala service in Bangalore.

A dabbawala operation in Bangalore can work if the areas are demarcated constituency-wise and if the pickup and delivery points are at a reasonable distance and not too far away from each other. For instance, it is possible to carry home cooked food for short distances. For instance, areas like Domlur, Indira nagar, Jeevan Bhima Nagar, HAL, C V Raman Nagar can be serviced by a network of cycle bound dabbawalas preferably from the same community to foster greater team spirit and mutual cohesion in delivering the service immaculately. Those who live in these areas and work in these areas can benefit from having fresh home cooked food. The operation will be eco-friendly and multiple trips can be made on cycles. If this model is successful, it can be easily replicated in other pockets of Bangalore. The target groups need not be only office goers but also small traders, shop keepers, school children and school teachers.

### **How can the Mumbai dabbawalas help?**

The Mumbai dabbawalas can train delivery agents of the startup in Bangalore for delivering food in local areas. The delivery system in Mumbai is a complex one with the involvement of multi modal transportation. The system is simpler in Bangalore with cycle as the main mode of travel. Consciousness about customer needs, delivering the right tiffin to the right place at the right time, incorporating operational flexibility, innovating a coding system are some of the areas where training and incubation can reap rich dividends.

### **Application of the model in Bangalore**

In case of the Mumbai Dabbawala system, food delivery is done over long distances. In case of Bangalore this remains a challenge due to absence of a suburban railway network. Notwithstanding this, the fact remains that creation of

a food delivery system in Bangalore that is similar to the one operated by Mumbai Dabbawalas is not completely impossible. The delivery model will need slight tweaking to adapt itself to the Bangalore eco-system and meets the needs of the different type of customers.

### **The problem the model proposes to solve**

Even though it is a known fact that the Mumbai suburban rail network is the backbone of the Mumbai Dabbawala food delivery system, the author argues that a similar food delivery system can be established in Bangalore. In the absence of a suburban rail network in Bangalore, the food delivery system may need certain modifications.

1. Long distance food delivery is ruled out. Even though the connectivity of Metro rail network has recently been expanded, this is still not enough to cover the proposed food delivery system.
2. The Mumbai dabbawala delivery model can be revamped so that food delivery can be covered for short distances in Bangalore. This means that the model is not scalable but it can still be a reasonably modest attempt in ensuring that at least some sections of the population can enjoy the benefits of consuming home cooked food.

Whatever be the modifications in the model, it has to be clearly understood that affordability of delivery service and the emotional attachment to food cooked at home are two critical success factors that can ensure the success of the Bangalore Dabbawala food delivery system. The food prepared in one's home is cooked with love and affection taking proper care about hygiene and other aspects. So there is no comparison between food cooked outside and food cooked in one's home.

### **How can this initiative help in incubating business start-ups?**

Food apps have mushroomed in Bangalore. However all these apps only provide delivery of food that is cooked in restaurants? There is a great opportunity for an entrepreneur to provide home cooked food through the Bangalore dabbawala system wherein users can register for the services through the app. Additionally, the entrepreneur can also venture into setting up an industrial canteen that provides food that is prepared by home makers who have the spare time at their disposal and who can contribute by preparing food in the industrial canteen and bring in the tastes of home-made food. This can be a good example of social entrepreneurship. The women who help in the cooking can be encouraged to become micro entrepreneurs and support their families. There may be a need for tight control over quality of the food produced. Affordability may not be an issue as people are willing to pay an appropriate price for a reasonably good service.

The above mentioned kind of food delivery start-up cannot be a success until the last mile delivery- needs are completely taken care of by the entrepreneur. This would need the assistance from Mumbai dabbawalas who can act as incubators and help the start-up in training the delivery staff. This start-up can provide two types of services in Bangalore – delivery of home cooked food to customers and delivery of food prepared in industrial canteens to customers. Food of reasonably good quality that is prepared under hygienic conditions and delivered on time has both demand and market in Bangalore city. The areas of training where the Mumbai dabbawalas can get involved are: training the new teams with delivery etiquette; facilitating community bonding between the workers; creating ethical code of conduct; practicing the philosophy of “no customer should go hungry”; guiding the new teams to that they developing virtues like patience and perseverance. The incubation process should imbibe a unique work culture which enables the new members to integrate their work successfully so that they will be able to treat the 'food delivery service to customers' as service rendered to God.

Selection of food delivery boys must be done carefully as these boys are responsible for last mile delivery. Trust, commitment and dedication should be the natural qualities of the new hire. It is important to exclude those individuals from the selection process who are qualified and are known to frequently switch jobs. The new recruits may constitute school drop-outs, migrants from nearby villages and less educated unemployed urbanites who are eager to do a job that will give them immense satisfaction. As the food delivery start-up in Bangalore gains momentum, the IT and other industries can be approached for sponsorship and financial assistance to support the venture. The cycles or related mode of transport needed for the service delivery by the Bangalore dabbawalas can be sponsored by the corporate companies.

## Conclusion

Social entrepreneurship in India is still in its nascent stage. The reasons for the success of a particular entrepreneur may be ascribed to better strategic management. However this needs greater introspection to appreciate and understand the driving forces behind successful entrepreneurship efforts. Success of social enterprises may need more than a robust strategy. Incubation can play a crucial role in nurturing and developing social enterprises. The initial stages in the formation of a social enterprise are crucial as it is in these stages that the startup is exposed to a higher degree of vulnerability from external market and economic forces. Incubators for aspiring social entrepreneurs need to be firms who have experience in delivering social value on a sustainable basis. Incubators who have an enduring business model are ideally suited to train aspiring social entrepreneurs.

The Mumbai Dabbawala operation model defies all conventional logic and is therefore counter intuitive. These simple food delivery men have achieved so many feats without a basic formal education. They have been purely guided by their instincts and inherent skill and competency. Their service delivery excellence has put them in the global spotlight. Their delivery model boasts of operational flexibility. The delivery operation meets the exacting standards of Six Sigma. Community bonding and team cohesion result in very few interpersonal skirmishes among the dabbawalas. The Mumbai dabbawalas truly exemplify the saying – Work is Worship.

This paper has provided evidence from literature that the Mumbai Dabbawalas are ideally suited to act as incubators for food start-ups in Bangalore who aspire to replicate a similar model. The Dabbawalas can also train start-ups who wish to enter the waste management space in Bangalore using their service delivery model. Social incubation can aid the strategies for an aspiring social entrepreneur. Such incubation efforts need a mentoring relationship between the incubator and the social entrepreneur. The Dabbawalas can be great mentors considering the visibility that they have attained globally during the last few years due to their experience in food delivery handling and logistics expertise. They may not be able to provide financial capital but they can excel in transfer of knowledge. This is because they have developed the knack of converting a complex business operation into a simple one purely guided by the experience that they have gained over the years. Their ability to indulge in Jugaad innovation and their never-say-die spirit makes them strong contenders to act as incubators for aspiring social entrepreneurs.

## References

1. Abhi, S. Venugopal, V. & Shastri, S (2015) "Social Entrepreneurship—Building Sustainability through Business Models and Measurement of Social Impact. In Entrepreneurial Ecosystem", (pp. 295-323) Springer India.
2. Ackoff, R. L. (1972). "A note on systems science", *Interfaces*, 2(4), 40-41.
3. Al-Mubarak, H. M., Muhammad, A. H., & Busler, M. (2015), "Categories of incubator success: a case study of three New York incubator programmes", *World Journal of Science, Technology and Sustainable Development*, 12(1), 2-12.
4. Balakrishnan, N., & Teo, C. P. (2008), "Mumbai Tiffin (Dabba) Express in Supply Chain Analysis", (pp. 271-278). Springer US.
5. Baidur, D., & Macário, R. M. (2013), "Mumbai lunch box delivery system: A transferable benchmark in urban logistics?. *Research in transportation economics*", 38(1), 110-121.
6. Baron, R. A., Mueller, B. A., & Wolfe, M. T. (2016), "Self-efficacy and entrepreneurs' adoption of unattainable goals: The restraining effects of self-control", *Journal of Business Venturing*, 31(1), 55-71.
7. Bates, H., & Slack, N. (1998), "What happens when the supply chain manages you? A knowledge-based response", *European Journal of Purchasing & Supply Management*, 4(1), 63-72.
8. Ben Letaifa, S., & Reynoso, J. (2015), "Toward a service ecosystem perspective at the base of the pyramid", *Journal of Service Management*, 26(5), 684-705.
9. Bondre, S. (2013), "MUMBAI'S DABBAWALA: The Uncommon Story of the Common Man", Westland.

10. Bornstein, D. (2007), "How to change the world: Social entrepreneurs and the power of new ideas", Oxford University Press.
11. Busenitz, L. W., Sharfman, M. P., Townsend, D. M., & Harkins, J. A. (2015), "The Emergence of Dual-Identity Social Entrepreneurship: Its Boundaries and Limitations", *Journal of Social Entrepreneurship*, (ahead-of-print), 1-24.
12. Chakraborty, A., & Hargude, A. N. (Aug 2015), "Dabbawala: Introducing Technology to the Dabbawalas of Mumbai", In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct* (pp. 660-667).ACM.
13. Chopra, R., & Sharma, H. (2012), "Corporate to Cooperative Entrepreneurial Leadership in Emerging Economy-Lessons from Indian Enterprises", *Journal of Organisation and Human Behaviour*, 1(4), 12.
14. Csigás, G. N. (2015), "Non-Conventional Organizations–The Messengers of the Future in the World of Organizations and Management", *Global Journal of Management and Business Research*, 15(3).
15. Daskalaki, M., Hjorth, D., & Mair, J. (2015), "Are entrepreneurship, communities, and social transformation related?" *Journal of Management Inquiry*, 1056492615579012.
16. Day, G. S. (1999), "Misconceptions about market orientation", *Journal of market-focused management*, 4(1), 5-16.
17. Estrin, S., Mickiewicz, T. M., & Stephan, U. (Jan 2015), "Human Capital, Social and Commercial Entrepreneurship: The Role of Gender and Institutions", In *Academy of Management Proceedings* (Vol. 2015, No. 1, p. 14493).Academy of Management.
18. Germak, A. J. (Jan 2015), "For Love or Money? Achievement Orientation, Non-Monetary Focus and the Nascent Social Entrepreneur", In *Society for Social Work and Research 19th Annual Conference: The Social and Behavioral Importance of Increased Longevity*. Sswr.
19. Giddens, A. (1984), "The constitution of society: Outline of the theory of structuration", University of California Press.
20. Gray, C. (2002), "Entrepreneurship, Resistance to Change and Growth in Small Firms", *Journal of Small Business and Enterprise Development*, 9(1), 61-72.'
21. Goldstein, J., Hazy, J. K., & Silberstang, J. (2010), "A complexity science model of social innovation in social enterprise", *Journal of Social Entrepreneurship*, 1(1), 101-125.
22. Hackett, S. M., & Dilts, D. M. (2004), "A real options-driven theory of business incubation", *The Journal of Technology Transfer*, 29(1), 41-54.
23. Hausmann, R. C. (2015), "Organizing Ecosystems for Social Innovation: The Relationality of Contexts and Mechanisms in a Social Entrepreneurship Network" (Doctoral dissertation, The George Washington University).
24. Hayward, M. L., Shepherd, D. A., & Griffin, D. (2006), "A hubris theory of entrepreneurship", *Management Science*, 52(2), 160-172.
25. Hmieleski, K. M., & Baron, R. A. (2009), "Entrepreneurs' optimism and new venture performance: A social cognitive perspective", *Academy of management Journal*, 52(3), 473-488.
26. Ishak, S., Omar, A. R. C., & Moen, J. A. (2015), "World-view, locus of control and entrepreneurial orientation in social entrepreneurship endeavor", *Mediterranean Journal of Social Sciences*, 6(3 S1), 592.
27. Kamath, S. J., Lee, Y. J., & Zhang, X. T. (2013), "Social enterprise models: creating the fortune at the base of the pyramid", *International Journal of Social Entrepreneurship and Innovation*, 2(3), 269-292.
28. Krishnan, U. S. (2014), "A Cross Cultural Study of the Literacy Practices of the Dabbawalas", *Towards a New Understanding of Nonmainstream Literacy and its Impact on Successful Business Practices* (Doctoral dissertation, Kent State University).
29. Kulkarni, S. V. (2015), "Make in your respective Rural markets'-A suggested innovation for Emerging Markets", *IOSRD International Journal of Business*, 1(1), 14-16.

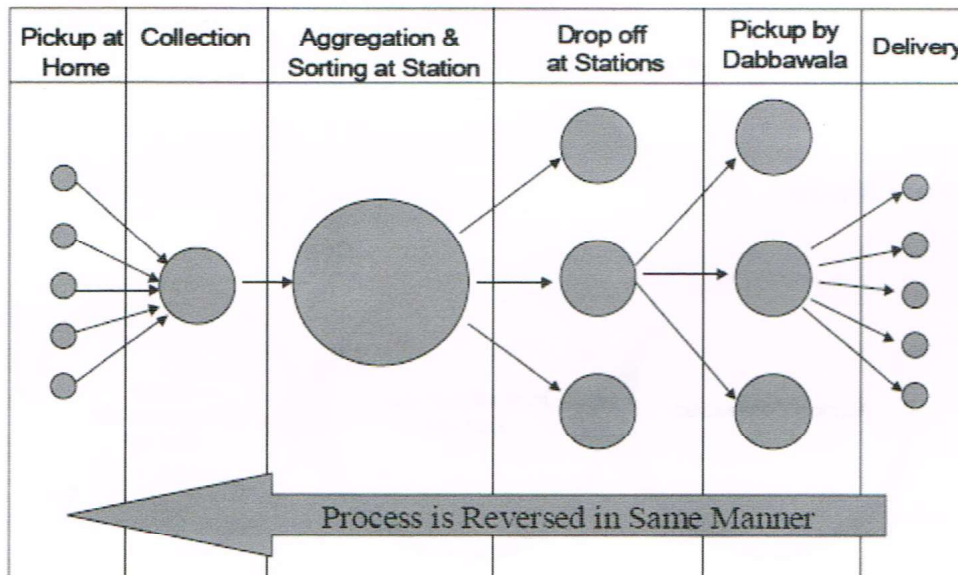
30. Kumar, R. (2010), "Social enterprise: It takes a network What Matters", McKinsey Digital Report.
31. Mair, J., & Marti, I. (2006), "Social entrepreneurship research: A source of explanation, prediction, and delight", *Journal of world business*, 41(1), 36-44.
32. Marmer, M., Herrmann, B. L., Dogrultan, E., Berman, R., Eesley, C., & Blank, S. (2011), "Startup Genome Report Extra: Premature Scaling", *Startup Genome*, 10.
33. Manimala, M. J., Thomas, P., & Thomas, P. K. (2015), "Perception of Entrepreneurial Ecosystem in India: Influence of Industrial Versus Personal Context of Entrepreneurs", In *Entrepreneurship in BRICS* (pp. 105-123). Springer International Publishing.
34. Manimala, M. J., & Wasdani, K. P. (2015), "Emerging Economies: Muddling Through to Development in Entrepreneurial Ecosystem", (pp. 3-53). Springer India.
35. Menon, S., & Raithatha, M. (2012), "Occupational Stress: An Analytical Study of Stress among Dabbawalas of Mumbai Tiffin Suppliers Association", *Prabhandan: Indian Journal of Management*, 5(1), 47-54.
36. Mort, G. S., Weerawardena, J., Sargeant, A., & Bennett, R. (2015), "Social Entrepreneurship and Value Creation in Not-For-Profit Organizations in Marketing in Transition: Scarcity, Globalism, & Sustainability", (pp. 372-376). Springer International Publishing.
37. Nandan, M., London, M., & Bent-Goodley, T. (2015), "Social Workers as Social Change Agents: Social Innovation, Social Intrapreneurship, and Social Entrepreneurship", *Human Service Organizations: Management, Leadership & Governance*, 39(1), 38-56.
38. Nicolopoulou, K., Karataş Özkan, M., Vas, C., & Nouman, M. (2016), "An incubation perspective on social innovation: the London Hub—a social incubator", *R&D Management*.
39. Nirali, P., & Vijaylaxmi, C. (2014), "Small Innovations: The Big Drivers of Indian Economic Development", *Advances in Management*, 7(1), 20.
40. Patel, N., & Vedula, N. (2006), "Dabbawalas of Mumbai", White Paper Kenan-Flagler Business School.
41. Pirson, M. (2015), "Why Study Social Entrepreneurship?" Available at SSRN 2558208.
42. Prayukvong, W., & Hoopes, J. (2015), "Chao Guo and Wolfgang Bielefeld: Social entrepreneurship: an evidence-based approach to creating social value", *International Entrepreneurship and Management Journal*, 1-3.
43. Raman, S. R., & Vijayalakshmi, C. (2015), "Mentoring social entrepreneurs in India: attributes and functions", *International Journal of Indian Culture and Business Management*, 11(2), 137-154.
44. Ravichandran, N. (2005), "World Class Logistics Operations: The Case of Bombay Dabbawalas", W.P. No. 2005-09-01
45. Roncaglia, S. (2013), "Feeding the City: Work and Food Culture of the Mumbai Dabbawalas", Open Book Publishers.
46. Roy, R., & Tripathi, V. (2015), "Social Entrepreneurship for Sustainable Economic Development: A Need to Increase Workforce Participation", *Global Journal of Enterprise Information System*, 7(2), 106-109.
47. Salancik, G. R., & Burt, R. S. (1995), "Wanted: A good network theory of organization", *Administrative Science Quarterly*, 40(2), 345-349. <http://doi.org/10.2307/2393642>
48. Salancik, G. R. (1995), "Wanted: A Good Network Theory of Organization [Review of Structural Holes: The Social Structure of Competition]", *Administrative Science Quarterly*, 40(2), 345-349. <http://doi.org/10.2307/2393642>
49. Schultz, T. W. (1975), "The value of the ability to deal with disequilibria", *Journal of economic literature*, 13(3), 827-846.
50. Schumpeter, J. A. (1934), "The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle", (Vol. 55), Transaction publishers.

51. Sharda, A., Patel, G., Jain, A., Kumar, A., & Gandhi, S. (2012), "A Framework for Imbibing Sustainability in Supply Chains: Learning's from Cases of India Inc. Pioneering Supply Chain Design: A Comprehensive Insight into Emerging Trends", *Technologies and Applications*, 10, 283.
52. Smith, B. (July 2015), "Social entrepreneurship deserves better research. *Entrepreneurship & Innovation Exchange*", Retrieved December 26, 2015, from <https://eiexchange.com/content/74-social-entrepreneurship-deserves-better-research>
53. Stephan, U., Patterson, M., & Kelly, C. M. (Jan 2015), "Organizations Driving Positive Social Change: A Review of Mechanisms and an Integrative Framework", In *Academy of Management Proceedings* (Vol. 2015, No. 1, p. 14391), Academy of Management.
54. Sunitha Panicker, Mathew J. Manimala, (2015) "Successful turnarounds: the role of appropriate entrepreneurial strategies", *Journal of Strategy and Management*, Vol. 8 Issue: 1, pp.21 - 40
55. Swanson, L. A., & Zhang, D. D. (2011), "Complexity theory and the social entrepreneurship zone", *Emergence: Complexity and Organization*, 13(3), 39.
56. Tang, Y., Li, J., & Liu, Y. (2015), "Does Founder CEO Status Affect Firm Risk Taking?" *Journal of Leadership & Organizational Studies*, 1548051815623736.
57. Vandor, P., Hansen, H., Millner, R., & Asyamova, A. (2015), "What Does it Take to Support a Change Maker?—The Effects of Organizational Maturity, Business Model and Mission Orientation on the Support Needs of Social Entrepreneurs", Working Paper.
58. Windahl, C., & Lakemond, N. (2006), "Developing integrated solutions: The importance of relationships within the network", *Industrial Marketing Management*, 35(7), 806-818.
59. Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009), "A typology of social entrepreneurs: Motives, search processes and ethical challenges", *Journal of business venturing*, 24(5), 519-532.

### Internet References

1. [http://articles.economicstimes.indiatimes.com/2014-08\\_22/news/53112455\\_1\\_mumbai-case-study-stefan-thomke](http://articles.economicstimes.indiatimes.com/2014-08_22/news/53112455_1_mumbai-case-study-stefan-thomke)
2. <http://social.yourstory.com/2013/09/social-business-incubators-helping-startups/>

**Fig.1. The Delivery Model of Mumbai Dabbawalas**



Source : Patel, N., &Vedula, N (2006)

Fig. 2: Unique Features of the Dabbawalas Business Model

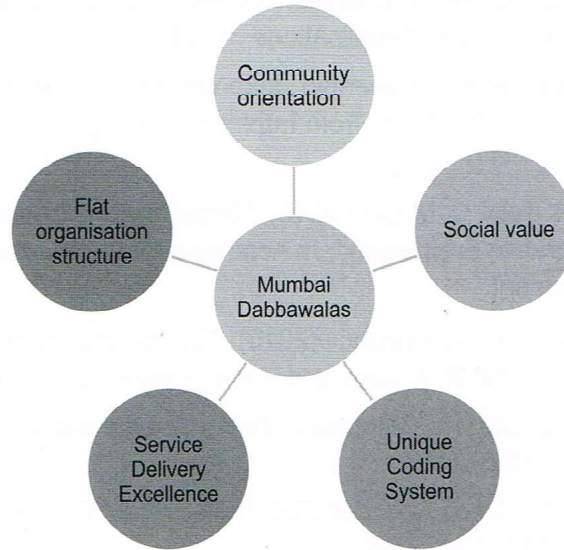


Figure 3: Factors Leading to Sustainability of Social Enterprise

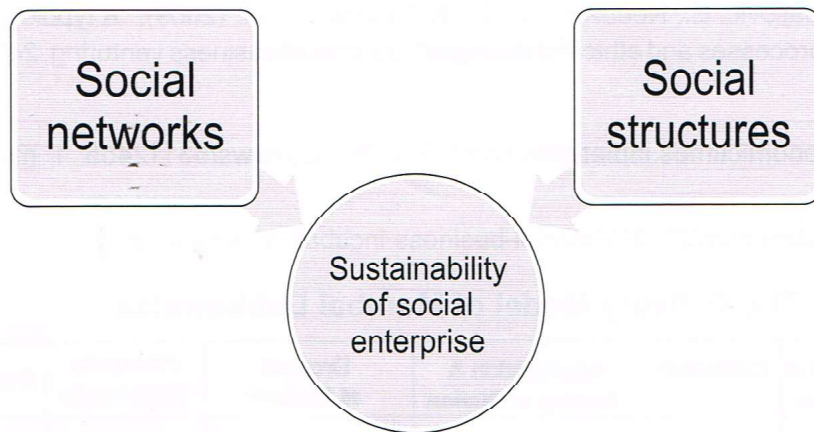


Figure 4: Conceptual Model

