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Business format in social entrepreneurships for Bangladesh's water sector

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Abstract

This study suggests a social business format, founded on social entrepreneurship for the water sector, that appears suitable in Bangladesh. The theoretical aspect of the study examines the literature on social entrepreneurship in developing economies and in Bangladesh, as well as literature on business models and formats. The empirical aspect of the study contains individual cases that are studied through secondary data. The complete sample originates from the database of the Schwab Foundation for Social Entrepreneurship of the water sector and Bangladesh Social Enterprise Projects for social business enterprises. The results of this study provide an overview of a successful social business format composed from the nine cases of social business enterprises and the eight non-profit social enterprises in the water sector. Similarities between the social businesses' formats indicated by the social business enterprises' cross-case analysis include business mission, market exploitation, direct relationship dynamics and the basis for differentiation. When compared with the eight social business formats in the water sector, differences were found. The social business format in the water sectors does not focus on entrepreneurial skills, product innovation, direct sales, partnership with a business, or economic value creation.

Keywords: Social entrepreneurship, Developing economies, Bangladesh, Water sectors

Background

Entrepreneurship is often considered a significant tool for economic growth and the development of a country, as entrepreneurship generates employment opportunities and has positive impacts on innovation and public welfare (Acs et al. 2008). This is why; entrepreneurship works as the main driver of the economic development of lower- and middle-income countries (Anokhin et al. 2008). Consequently, a lower- to middle-income economy, better known as a developing economy, may be economically supported by entrepreneurial activities. Developing economies can obtain high levels of economic growth, resulting in a high number of opportunity-driven entrepreneurs (Naude 2009), and this high number of opportunity-driven entrepreneurs can ensure more entrepreneurial activities in these economies (Wong et al. 2005). However, in reality high-growth entrepreneurial activities are not widespread in many developing economies. Munemo (2012) found less entrepreneurial activity in many developing economies that have political instability, more specifically in African economies. These limited and specific entrepreneurial activities are commonly considered a reason for

institutional breakdowns (Naude 2010). The obstacles of entrepreneurial development and institutional breakdown create an opportunity to introduce more social entrepreneurship. If governments in developing economies fail to establish social institutions, then social entrepreneurship may play a key role in creating social values (Mair and Marti 2009). This key role of social entrepreneurship facilitates the search for business opportunities and the creation of social values in an organization (Haugh 2005). Professor Yunus, pioneer of the Social Business building, says a business model for a social enterprise can convert inputs into outcomes, generating both social and economic value for everyone, including the poor people at the bottom of the pyramid, who are usually left out.

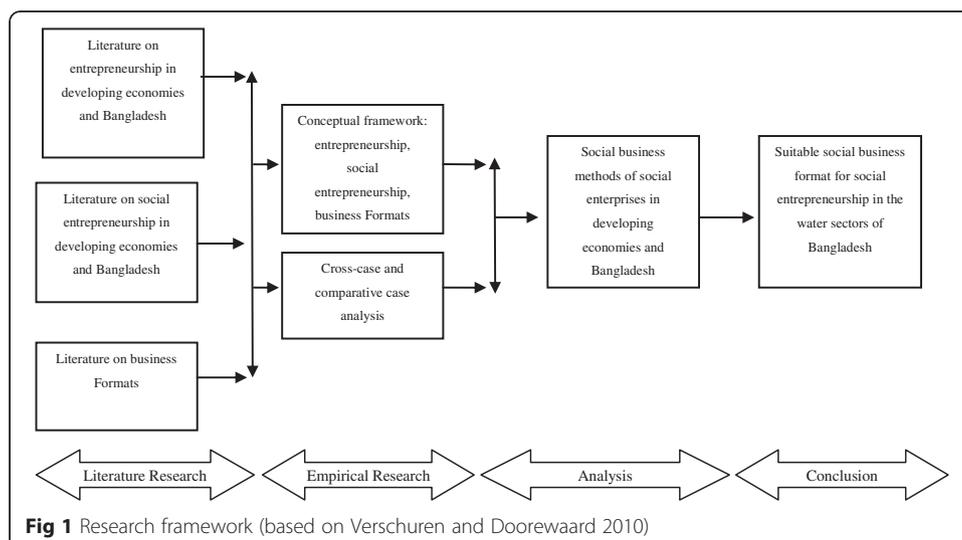
Social entrepreneurship creates social value and human development that result in the development of various sectors and consequently the development of the economy. A strong correlation exists between human development indicators (income, childhood mortality, and life expectancy) and the access to potable water (WHO and UNICEF 2000). Partzsch and Ziegler (2011) found that to develop a national economy, access to potable water is obligatory. According to UNDP report, unfortunately, at present one-third of the world's residents have no access to potable water. Fast forward 40 years, and though Bangladesh is doing well in water management, it still encounters several challenges in this regard. The water supply sector of Bangladesh is mainly supported by multilateral agencies like International Development Association (IDA), Danish International Development Agency (DANIDA), Japan International Cooperation Agency (JICA), Japan Bank for International Cooperation (JBIC) and by the Asian Development Bank (ADB) (Rahaman 2009). Bangladesh has six city corporations and 308 municipalities; all these institutions manage their own water, but periodic maintenance of the water supply systems does not work properly. Say, for instance, according to the Water Supply and Sewerage Authority (WASA) report, Dhaka requires 2.2 billion liters water in a day, but can only produce 1.9 to 2 billion. An analysis of "market potentials for Danish technology providers and investors" has reported that, like for Dhaka, availability of clean water is a major challenge for Bangladesh, along with an ongoing energy crisis and the poverty situation. The same analysis also reported that for the water sector, traditional enterprises are not suitable for the low-level of cost recovery¹ due to low tariffs and poor economic efficiency. Two new companies² have been established under the principles of social business, with the goal of providing clean drinking water to rural people. But the contributions of these institutions are not adequate to supply water to the people. Presently, no evidence exists for how social entrepreneurship affects water supply in Bangladesh. Therefore, the ultimate goal of this study is help to the development of social entrepreneurship in the water sector by conducting an analysis of social business formats in developing economies (including Bangladesh) and by providing an outline business format for the water sector of Bangladesh.

The present study provides an outline for a social business format that can be used to develop social entrepreneurship in the water sector of Bangladesh. This outline is based on research that is both theoretical and empirical and which is instructive of how the situation can be changed (Verschuren and Doorewaard 2010) in the water sectors of Bangladesh. Therefore, the general research question (GRQ) is, What is a suitable business format for social entrepreneurship in the water sector of Bangladesh?

To answer the GRQ, we need to find the answer of the following specific research questions (SRQ), representing four stages of inquiry. SRQ1: What explains the trend of social entrepreneurship in developing economies and Bangladesh? (See literature research stage in Fig. 1.) SRQ2: What differentiates social entrepreneurship in developing economies, specifically in Bangladesh? (Again, see literature research stage in Fig. 1.) The descriptive knowledge gained from these two SRQs characterizes the scope of the study. Within this scope, the study seeks to explain how a fact originates. Explanatory knowledge includes the following SRQs. SRQ3: What differentiates the business model and business format of social enterprises in developing economies and Bangladesh? (See empirical research stage in Fig. 1.) SRQ4: Which components of business formats are used by social enterprises in developing economies and in Bangladesh? (See analysis stage in Fig. 1.) SRQ5: Which business format looks suitable for social business enterprises in the water sector of Bangladesh? (Conclusion stage in the Fig. 1).

Figure 1 demonstrates the research framework of this study. This research framework contains four phases that need to be covered to obtain the answers of the research questions and to achieve the research objective. In the literature research stage, relevant literature is reviewed to create a theoretical framework for the empirical research stage. This stage is a background for the analysis of social business formats in the Bangladeshi economy and is conducted in the analysis stage for every individual case and in a cross-case analysis for social business enterprises in different sectors, as well as social entrepreneurship in the water sectors. The results of both analyses are compared, contrasted and concluded. The concluding remarks describe suitable business formats for social entrepreneurship in the water sector of Bangladesh.

The literature review of the study covers three areas of study: 1) entrepreneurship in developing economies and Bangladesh, 2) social entrepreneurship in developing countries and Bangladesh and 3) business models and formats. These areas provide the conceptual framework of the study. The checklist of this framework is used to obtain the social business formats of all individual cases used in the comparative case analysis of both the nine social business enterprises from diverse sectors in Bangladesh and the eight social enterprises in the water sector of developing economies. The analysis



stage is an overview of the results of both analyses. The social business formats found in the analysis are compared to find similarities and differences between social business enterprises in different sectors and the social enterprises in the water sector of Bangladesh. This comparison gives a suitable social business format for Bangladesh in the water sectors at conclusion stage.

Entrepreneurship in the water sectors in developing economies and Bangladesh

This section presents an answer to the first SRQ, “What explains the trend to social entrepreneurship in developing economies?” In recent years, entrepreneurship has been considered as an important driver of economic growth and development. We may categorize economies by the gross national income (GNI) per capita. The present study uses GNI (2012) per capita from the World Bank Atlas method ³ to define the developing economies. In the SME and social entrepreneurship sectors, Bangladesh is doing well, but the overall situation of entrepreneurship in Bangladesh is not good at all (Moazzem 2008). Critics said that in Bangladesh an entrepreneur may not always be an “innovator” but an “imitator” tempted to copy the successes of others.

Limited access to potable water and a lack of the provision of services create a vicious cycle (Partzsch and Ziegler 2011) that lead to reducing economic growth in developing countries. Evidence shows that very little recycling of water is taking place in the world where the major sources of water are surface (30 %) and ground water (69 %) and the major uses are drinking, industrial or agricultural. Nonetheless, the usage patterns of water in Bangladesh are 96 % for agricultural use, 3 % for domestic use, and 1 % for industrial use (BIPSS 2007). To specify the study context further, this study involves only the first two use activities, water supply and sanitation. At present, the water sector considers a worldwide drive for privatization, both in developed and developing economies (Wolff and Hallstein 2005). This drive can create many opportunities for individual entrepreneurship in the water sector of developing economies and Bangladesh.

Social entrepreneurship in developing economies and Bangladesh

Social entrepreneurship (SE) can emerge when other approaches from business organizations fail to stimulate economic development and growth. This section explains the concept social entrepreneurship and the characteristics of social entrepreneurship in developing economies and Bangladesh and answers the second SRQ: “What characterizes social entrepreneurship in developing economies, specifically in Bangladesh?”

In the past two decades, the social entrepreneur’s concept has gained momentum and popularity. Broadly understood, SE is a social mind-set that is applicable in any kind of business or setting (Roberts and Woods 2005), such as profit entrepreneurial setting, a non-profit setting, a public setting, and within other social issues in any kind of organizational structure. Austin et al. (2006) say that SE should start with non-profit organizations; Dees and Anderson (2003) define SE as the process of transforming a non-profit organization into a profit-oriented organization, whereas Sagawa and E, Segal (2000) state that SE is the process through which business owners integrate their social responsibilities into their operations. To survive in a particular field, SE needs to exploit opportunities for social change and progress with

the primary objective of creating social values and a secondary goal of creating economic value (Mair and Marti 2006). At the outset, a social entrepreneur should satisfy all the conditions of conventional entrepreneurship (Peredo and McLean 2006) within a social organization. When the said social enterprise becomes financially sound, generally it turns into a social business venture. We find a clear distinction between SE and traditional entrepreneurship in terms of objectives. The fundamental objective of SE is to boost social change depending on revenue streams but maximize profit, where the ultimate goal of traditional entrepreneurship is to maximize profit and wealth (Murphy and Coombes 2009).

We believe that revenue-generating social enterprises can be useful in developing economies, especially in Bangladesh, due to the combination of the government, civil society, private sector, and the public-private partnership approaches. Evidence shows that as governments in developing economies often fail to assume their role in creating and strengthening social institutions, SE might play a significant role in economic development and growth (Mair and Marti 2009). Presently, we see some outstanding innovations in social entrepreneurial enterprises, in developing economies and in Bangladesh, that address basic fundamental rights and human needs. But these initiatives are not yet complete and fall short of expectation. Experts suggest that optimal SE is possible in developing economies, although it is challenging due to lack of institutional structures (Seelos and Mair 2005), lack of access to capital (human, social and financial), and exploitation of entrepreneurial opportunities (Seelos and Mair 2005). Governments in developing countries often fail to offer these functions, while social entrepreneurship searches to find innovative ways to overcome these institutional failures. However, social entrepreneurs can work in the water sector as agents that perform certain functions and provide certain services previously considered the sole authority of states, and such enterprises are characterized by authority gained by their innovative potential, local embeddedness, educational efforts, and additional sources of accountability and legitimacy (Partzsch and Ziegler 2011). Currently, there are some social entrepreneurship initiatives in the water sector of developing economies (Ashoka 2014; Schwab Foundation 2014; and Skoll Foundation 2014), but these are not enough to equal the diverse demands.

Bangladesh is a recognized leader in social enterprise for organizations including Grameen Bank and BRAC. Researchers like Seelos and Mair (2005) and Alvord et al. (2002) have named Grameen Bank and BRAC as renowned examples of social entrepreneurship, as the founders of both organizations are hard workers, opportunity seekers, innovators, good organizers, planners and risk takers (Hossain, Hossain. (2012). In the year Bangladesh Social Enterprise Project (2010) conducted a survey study the perception of Bangladeshi people to SE. The majority of the respondents highlighted that they have a good understanding of the concept of social enterprise. They define a social enterprise as a business with social welfare and profit objectives (56.8 %), responsible to all stakeholders (35.1 %), and reinvesting profit for growth (32.4 %). BEP also found that the main challenges for engaging in Social Enterprise in Bangladesh have to do with overcoming a lack of an entrepreneurial mindset (73 %). The same report also reveals other challenges: access to finance, corruption, difficulty in attracting talented human resources, financial risks, administrative hurdles, and social risks or costs. Some of the initiatives they highlighted to overcome the problems are better media coverage

(97.3 %), capacity-building initiatives (94.6 %), recognition for best social enterprises (83.7 %), a formal association for social enterprise (78.4 %), a separate course on social enterprise in the university curriculum (67.5 %), and a dedicated website (67.5 %).

Social business model and business formats

The business model focuses on the value creation of a business and describes an enterprise's core strategy to generate economic value. To generate economic value, an enterprise converts its input into output and makes a profit that should be greater than opportunity cost and delivers a return to its investors. Generally, social entrepreneurs use a business operation model that is defined as a social business. The format of a social business is derived from a conventional business model. This section answers SRQ3: What differentiates the business model and business format of social enterprises in developing economies and Bangladesh?

Different experts define the concept 'business model' in different ways, including terms such as strategy, business-concept, revenue-model, economic model and the business model itself (Zott et al. 2011). The business model often concentrates on joint value creation, cooperation and partnership within the enterprise and with other enterprises (Magretta 2002). The business model is used to explain the activities of an enterprise, the strategy of that enterprise and the way the enterprise combines strategic formulation and implementation (Richardson 2008). The present study uses the business model of social enterprises, which is called social business model, to investigate the success factors that lead to the success of the social enterprise. The success of a business model includes a wide range of financial performance measures such as revenue growth, profitability, market capitalization, and equity (DeYoung 2005; Redis 2009). Business models also deal with the link between products markets (within the industry) and the labor and capital market. In our case, for social enterprises, the social value provided to stakeholders can be used to measure the success (Mair and Schoen 2007) of the business. In social business, a business model is used to determine the factors that lead to success in creating both financial and social values. Therefore, this study makes use of the business format ⁴ of a social enterprise, a format that can be seen as a checklist based on the use of the Hamel's established current business model.

Examining the formation of a social business format, Santos (2009) focuses on value creation rather than value appropriation. The social business format used by this study is based on the business model of Hamel (2002). This model (shown in Table 2) includes all aspects of social business elements in developing countries and has been used in previous research by Mair and Schoen (2007). So, the social business format is characterized by four components of the business model: core strategy, strategic resources, customer interface, and value network. Every component consists of sub-components and variables found in the academic literature and applicable to our study. In Bangladesh, there is a live debate on the concept of social business formats. To identify a social business format, Professor Yunus focuses on specific social, ethical or environmental goal and payback of initial investment but not returns, while Professor Sobhan emphasizes ownership of enterprises for poor people. On the other hand, BRAC likes to operate a hybrid model that includes conventional development,

Table 1 Components of a Business Model

Customer interface	Core strategy	Strategic resources	Value network
Type of organization	Business mission	Core competencies	Suppliers
Relationship dynamics	Market scope	Strategic assets	Partners
Pricing structure	Basis of differentiation	Core processes	Coalitions

Source: Hamel 2002

health and education programs with social enterprises and more commercial activities like banks. So, a common social business format is indeed for entrepreneurs to develop the water sectors in Bangladesh.

Conceptual framework

The conceptual framework provides specific boundaries and relationships between the research variables in order to function as a clear basis for the empirical part of the study. The general objective of the study is to find a business format for social entrepreneurship that seems to be suitable for the water sector in Bangladesh. This study uses the business model to study the success and survival of social enterprises in Bangladesh’s economies and water sector. The study employs previous academic study of social entrepreneurship development, hybrid non-profit model of social enterprises and leveraged not-for-profit model which are active in the water sector. Hybrid social venture combines the social welfare logic of nonprofits and the money making logic of a For-profit-business. Bleading (2013) says, hybrid social ventures are creative ways of solving real-world problems and these ventures harness the strength of both

Table 2 Social business format checklist taken from social business enterprises

Component	Sub-Component	Variable
Core strategy	Business mission	Opportunity driven, necessity driven.
	Market scope	A network of rural people.
	Basis for differentiation	Direct sales (door to door sales, rural sales program), research and training facilities.
Strategic resources	Core competencies	Entrepreneurial skills, corporate responsibility, reduced production cost.
	Strategic assets	Distribution by local female, organic products
	Core processes	Employment generation, nutrition, health, waste recycling, energy, education, empowerment of rural women, livestock, halal, free treatment to poor, childcare program for children, rearing of organic cattle, establishment of a rural center (product and service innovation).
Customer Interface	Organization structure	Business partnership, unique proximity based social business model, social business venture, welfare trust, cooperative, non-profit organization.
	Relationship dynamics	Strong direct network, social compliance standard
	Pricing structures	Market prices (set to make the enterprise self-sustaining) through direct sales.
Value network	Suppliers	Individual entrepreneurs, employees of the company, small and medium enterprises, multinationals, governmental organizations.
	Partners	Partnership with business (GP), (bata and care), community farmers' level.
	Coalitions	Business, communities.

profitability and non-profit business models. Anyway, under the hybrid non-profit organization model, entrepreneurs set up non-profit business considering somewhat of cost recovery with the sale of goods and services. On the contrary, under the leveraged non-profit model, entrepreneurs set up a non-profit business to ensure the uses of innovation that address government failure or a market (Schwab Foundation).

The traditional business model and social business model and social entrepreneurship literature are interrelated, as both knowledge areas influence each other within the scope of this study. The present study has developed based on the business model framework of Hamel (2002) and used this framework as a tool to study social business generally. This business model framework consists of four components with some sub-components of each of the four major components. An overview of the components is depicted in Table 1.

The first component of the business format is the customer interface, which explains the type of social business organization, relationship with customers and pricing structures referring to income-generating activities. Hamel (2002) mainly focuses on direct sales of products to customers and indirect sales to other organizations. The core strategy of a business deals with future plans and sets out key decisions on social business development. The first element of this component is the business mission that covers the overall objective of the strategy (Hamel 2002). The objective of a social enterprise may be opportunity-driven or necessity-driven. Market and product scope indicates a market where the enterprise competes with other organizations, products and customers. The final element is the differentiation strategy that distinguishes the product and services of a firm from those of other firms as a way to reduce competition (Chamberlin 1948). The third component of the business model is the strategic resources that include three important sub-components: core competencies, strategic assets, and core processes. Strategic resources create a competitive advantage for social enterprises (Hamel 2002), strategic assets cover the human and physical resources of a firm, and the core process of social enterprise indicates the innovative approaches of the activities of social business. The value network encourages a social enterprise to build relationships with all surrounding parties that are related to social enterprises. For the best complement and amplification of social business resources, a good relationship with customers, suppliers, government, foundations and other business might help.

In a qualitative and explorative study, Mair and Schoen (2007) use this business model framework and address how social entrepreneurs successfully combine social and economic value creation in a financially self-sustained manner. The present study uses the same approach and aims to address how business models are composed in social business that seems useful for the water sector of Bangladesh. Therefore, the business model combines all the gained knowledge on social entrepreneurship in a social business format. A social business format consists of the four components (core strategy, strategic resources, customer interface, and value network) of the business model and its underlying set of sub-components. The set of components and variables originates from social entrepreneurship literature and the business model framework of Hamel (2002) and results in a checklist of possibilities that compose the business model of a social enterprise. The complete checklists are provided in Table 2 and Table 3 and are used to study the various social enterprises.

Table 3 Social business format checklist from social enterprise for the water sectors

Component	Sub-component	Variable
Core strategy	Business Mission	Opportunity driven, necessity driven
	Market scope	A network of rural co-operatives, fulfillment of villager needs, market for lower income people.
	Basis for differentiation	No distribution costs, capacity-building, consultancy, water-filtering facility, training facilities, water and sanitation loan.
Strategic resources	Core competencies	Low-cost solar energy, provision of electrification and some water purification, commercial viability, environmental friendliness.
	Strategic assets	Pool community resources to establish and improve village infrastructure, water and sanitation, use local materials, controlled pore size, the eco-filter allows water to pass, water credit program targets households with a lower income.
	Core processes	Quality control, designing and installing low-cost community sewage and water treatment systems, providing potable water in homes and water for irrigation, treatment systems, pouring water for purification, rainwater harvesting structures (process innovation).
Customer Interface	Organization structure	Hybrid non-profit, leveraged not-for-profit.
	Relationship dynamics	Every adult is a member with direct relationship.
	Pricing structures	Lower price.
Value network	Suppliers	Employees of the company, governmental organizations.
	Partners	Public-private partnerships. Fixed-cost underwriting by micro-finance institutions.
	Coalitions	Private business, micro-finance institutions.

Methods

The analysis made by this study is based mainly on existing literature and material gathered by others and, therefore, can be classified as a desk-study research strategy (Verschuren and Doorewaard 2010). The gathered data for this study originate from several sources. Secondary data used include existing case studies, published and unpublished reports and articles, internet sources and profile description from the Schwab Foundation. The method comprises the individually studied cases of social entrepreneurship. The Schwab Foundation provided a suitable database for the eight strategic samples, as this database included social enterprises in the water sectors. Eight strategic samples were selected based on two criteria: being a social enterprise and operating only in the water sector. These eight social enterprises do business, of course, in developing countries like Bangladesh. Secondly, nine existing social enterprise developments of Bangladesh in different sectors were analyzed. These nine social business cases were taken from the Bangladesh Social Enterprise Project (BSEP).

The first stage was an in-depth examination of all 17 (8 + 9) individual cases studied independently (Appendix 1 and 2) to find a social business format based on the conceptual framework checklist. Firstly, nine social business enterprises were studied carefully and key variables were identified (Appendix 2), and then the variables were set into the social business format checklist from social business enterprises (Table 2). This checklist provides a general social business enterprises format. Secondly, eight social business enterprises from only the water sectors were studied carefully and key variables were identified (Appendix 1); then the variables were set into the social business format checklist from social business enterprises for the water sector (Table 3).

This checklist provides a general social business enterprises format for the water sectors. Again, the summary of these two businesses format checklists provides an overview of social business format. In the second stage, the composed general social business enterprises format was compared with the common social business enterprises for the water sector. Differences between the two analyses conclude in prescriptive knowledge to develop social entrepreneurship in the water sector of Bangladesh.

Results and discussion

This section contains the results of case analyses and of the social business formats found in the social business enterprise, and it answers SRQ4: Which components of business formats are used by social enterprises in developing economies and Bangladesh? To answer SRQ4, the social business format checklist from social business enterprises and the social business format checklist from social enterprises for the water sectors were prepared and are shown below. Firstly, nine social business enterprises were studied carefully and the variables of each sub-component have been identified and set into the business format that provides the social business format checklist taken from social business enterprises.

Secondly, eight social enterprises from the water sectors under Schwab Foundation were used for a second comparative case analysis to find the variables of each sub-component. After identifying the variables, they have set into the business format that provides social business format checklist from social business enterprises for the water sectors, are shown in the Table 3.

The following headings explain when the social business formats (Table 2 and Table 3) are checked. I) Business mission: In the business mission sub-component, we found two variables; the social business venture can be either opportunity driven or necessity-driven (Harding et al. 2006). The social business venture is necessity-driven when the business is started out of financial necessity rather than an opportunity for new business. II) Market scope: In the market scope, we uncovered three common variables that create social values for lower income people with a cooperative network, as per community demand. III) The basis for differentiation: In the basis for differentiation sub-component we got four major variables like zero distribution cost, capacity building, loan facilities and direct sales. All factors but direct sales are responsible to enhance social values. IV) Competencies: The core competencies sub-component comprises four variables- quality control, low-cost technologies, investing entrepreneurial skills, and corporate responsibility. There are no commonalities, but all are relevant to the social enterprise and the water sector for the creation of social values. V) Strategic assets: In the strategic assets sub-component, we determined four variables—pooling of community resources, use of local materials, organic and sustainable products and distribution by a local female that creates both social and economic values. VI) Core processes: As the core processes include many more variables, this sub-component is summarized by product and process innovation. Our results report that conventional business enterprise focuses on product innovation whereas social enterprises for the water sector focus on process innovation. VII) In the organization structure sub-component, the following variables are available: hybrid non-profit, leveraged not-for-profit, business partnership, unique proximity,

welfare trust, cooperative, non-profit organization. These approaches can create both social and economic value while business partnership creates only economic value. VIII) Relationship dynamics: This sub-component includes two variables—strong network and social compliance standard. Here the network creates economic and social value where social compliance creates only social values. IX) Pricing structure: In the pricing structure sub-component there is a unique market price or least price (set to make the enterprise self-sustaining) that matters for both economic and social values. X) Suppliers: This sub-component covers five variables, including individual entrepreneurs, employees of the company, SMEs, multinationals, governmental organizations. Hence, entrepreneurs, enterprises, and employees create commercial value, governmental organizations create social value and supply from employees creates both social and economic value. XI) Partners: This component covers partnership with other business, communities, farmers, public-private partnership (PPP), and fixed-cost underwriting. The variable partnership with other business generates economic value, while PPP and fixed-cost underwriting introduce both the economic and social value, and partnership with communities and farmers generates social value. XII) Coalitions: This sub-component includes business, communities, private business and microfinance institutions (MFIs) where business creates economic value, communities and MFIs generate both economic and social value.

The composed general social business format and the business formats for the various organizational structures from the comparative case analysis of the nine social business enterprises are compared with the same formats based on the eight social enterprises in the water sectors. Distinguished characteristics between the two suggest that the creation of social and economic value should urge the prescription to develop social entrepreneurship in the water sectors of Bangladesh. The first point of discussion is related to the data set and strategic sample of the study. Internal validity is ensured by making use of the clear formulation of the research framework, pattern matching, and data triangulation. The Schwab Foundation clearly defines and categorizes the organizations examined by this study, but excludes many other social entrepreneurial initiatives globally. This study ignores these initiatives due to using solely cases originating from the water sector database of the Schwab Foundation. This ignored initiative could be useful for a larger sample in the water sector. A second point of discussion is the lack of statistical significance in the results. A third point of discussion is the absence of in-depth information related to the sub-components that are part of the theoretical framework checklist. The fourth and final point of discussion is that the samples of social business enterprises for the water sector are small, and our proposed format would be more effective using a large strategic sample. However, this study creates an avenue for further quantitative research on the factors influencing social enterprises in developing countries like Bangladesh, as well as for and other qualitative research.

Conclusions

The present study contributes to the development of social entrepreneurship in the water sectors of Bangladesh by providing an overview of formats of social business enterprises and comparing with the social business formats of developing economies in the water sector. The general research question of the study is, What is a suitable

business format for social entrepreneurship in the water sector of Bangladesh? The conclusion section answers the general research question by answering the various specific research questions.

Social entrepreneurship is the process of creating and maintaining social and economic values with a view to growing the social enterprise and to reaching more people to meet their fundamental needs. SE has been studied more frequently over the last decades, resulting in the following question: What explains the trend of social entrepreneurship in developing economies and Bangladesh? The trend towards social entrepreneurship can be explained by the pattern of developing economies and the entrepreneurship of the Bangladeshi economy, the effect of entrepreneurship on the economic development of Bangladesh. Evidence shows that these trends are promising for developing economies and the Bangladeshi economy as well. This consideration results in a specific research question: What characterizes social entrepreneurship in Bangladesh? The answer is found in the discussion of the two key elements of social entrepreneurship, “a comprehensive social goal and business model” and “entrepreneurial initiatives and activities.” These two key elements of social entrepreneurship are characterized by revenue-generating opportunities and contribution to economic development, intending to create social development for disadvantaged people, creating relationships between the social enterprise and the community, not being focused only on customer satisfaction but also on community development, and use of multi-value innovation for social changes and development. Social entrepreneurship in Bangladesh emerges through innovation and activities when institutions and governments fail to address social needs. In the empirical part of the study, social business model and format provide knowledge on social entrepreneurship that carries prescription and relates to a specific research question: What characterizes the business model and business format of social enterprises in Bangladesh? The business format is characterized by four components of the business model a) core strategy, b) strategic resources, c) customer interface, and d) a value network that helps to study all social enterprises. The accompanying prescription can be explained through discussion of the various social business formats and their similarities, answering the specific research question: Which business formats are used by social enterprises in Bangladesh?

The social business format checklist (Table 2) indicates a common social business enterprise format that uses a business model in an existing market that is opportunity driven. The social enterprise focuses on social differentiation with innovation⁵ for income generation and community development, whereas the core competencies of the social entrepreneur are quality control, corporate responsibility, managerial and technical know-how. This business format also dictates that an entrepreneur should use local materials and low-cost energy as strategic assets for business model innovation of the social enterprise and make partners with the community and businesses.

The social business format checklist (Table 3) illustrates that a general social business format for the water sector is a social enterprise that uses a non-profit business format that is generally opportunity-driven and exploits a market with local demands. The basis of differentiation for these organizations is both human capacity-building and community development through zero distribution cost, water, and sanitation loan, and makes use of strategic assets, say low-cost energy and local materials. The core competencies of the founding social entrepreneur include quality control via technology,

human resources and responsibility to the three Ps (people, planet, profits). The relationship dynamics are governed by both kinship and social compliance standards. The enterprise acts in a direct and indirect way with water treatment (pouring for purification and rainwater harvesting) for the customers on a continuous basis.

The answer to the last specific research question arises from the conclusion of the findings. When comparing the social business enterprises format with the social business format used by social enterprises in the water sector (Table 2 and Table 3), the following differences are found. Firstly, a social business enterprise focuses entrepreneurial skills as the basis for core competencies, whereas social enterprises in the water sector center on electrification and water purification. Secondly, regarding core process drivers, the social business enterprise is a business model of social welfare and product innovation, whereas the social enterprises in the water sector are of social welfare and process innovation. Thirdly, the pricing structure of social business ventures uses direct sales for income, whereas direct sales are not used by non-profit social enterprises in the water sector. Generally, the social enterprise in the water sector considers a lower priced technique. Fourthly, social business ventures are used to be part of a coalition or partner with a business and community, whereas social enterprises in the water sector are used to be private business and MFIs. Finally, non-profit concepts are used in the field of social enterprises only in the water sector, whereas both profit and non-profit terms are used in the social business enterprise. These differences should be considered in introducing a social business enterprise for the water sector in Bangladesh.

Endnotes

¹In urban areas where revenues from water sales do not even cover operating costs. In rural areas, users contribute 34 % of investment costs only.

²First one is Grameen Veolia Water Ltd. is a 50-50 joint venture of social business philosophy of Professor Muhammad Yunus and the second one is A. K. Khan Water Health (Bangladesh) Limited, a joint venture of decentralized business model. The untapped consumer market and the high demand for quality potable water offer a wealth of opportunities for ensuring sustainable revenue and creating positive social impact where the water is sold under the brand name of Dr. Water.

³This method categorizes economies of countries in four categories: 1) low-income, 2) lower middle income, 3) upper middle income, and 4) high income countries. The low income country group consists of countries with a GNI per capita of approximate \$1,000 or less, [GNI per capita; Atlas method (US dollar) in Bangladesh was last measured at 840 in 2012, according to the World Bank.] the lower middle income country group has approximate \$1,000 - \$4,000 and the upper middle income, approximate \$4,000 - \$12,500 (World Bank 2012).

⁴A business format is a design, at a certain stage of a business life cycle that explains in which way the activities of an enterprise and its partners work together to execute the strategy at that specific moment in time.

⁵No distribution costs, Capacity-building services, Water filtering facilities, Training facilities, Door to door sales, Rural Sales Program, Water and sanitation loan (by local female).

Appendix 1

Table 4 Description of selected water sector cases

Sl. Nr.	Company	Sector (model)	Innovation and activities
A	1001 fontaines pour demail (www.1001fontaines.com)	Water (Hybrid Non-Profit)	Implements low cost solar powered drinking water solutions for rural village. 1001 fountains' model incurs no distribution costs and offers the amount of drinking water necessary to match village needs.
B	Sunlabob Renewable Energy Ltd. (www.sunlabob.com)	Water, Energy, Enterprise Development, Rural Development, Environment, Technology (Hybrid non-profit)	Through public-private partnerships installs solar energy systems that primarily provide electrification and some water purification, particularly in rural areas ensuring village technicians and committees help service the solar charging stations, which encourages the creation of microenterprises. In providing consultancy and capacity-building services, Sunlabob has been expanding to different countries through franchise agreements.
C	Together Association for Development and Environment (www.together-eg.com)	Water & Sanitation, Rural Development (Hybrid non-profit)	It designs and installs low-cost community sewage and water treatment systems, providing potable water in homes and water for irrigation. The village-wide sewage system connects household septic tanks by gravity-fed pipes to a communal filtering facility, where appointed and trained community technicians oversee maintenance and quality control.
D	IDEI - International Development Enterprises (www.ide-india.org)	Agriculture, Rural Development, Water (Hybrid non-profit)	IDEI designs, develops and delivers small plot irrigation technologies that are commercially viable, environment friendly, scaled down to fit one-tenth of a hectare plots, and cost 20 % of competitive models. Over one million small holder farmer families have been reached through IDEI low-cost irrigation technologies, such as the treadle pump and drip irrigation.
E	Gram Vikas (www.gramvikas.org)	Education, Health, Rural Development, Water and Sanitation (Hybrid non-profit)	Every adult are the member in its programmes and provides incentives to help and encourage villagers to pool their resources to establish and improve village infrastructure, water and sanitation.
F	Ecofiltro (www.ecofiltro.com)	Clean Water, Health (Hybrid non-profit)	Eco filter is manufactured from locally sourced materials like clay, sawdust and colloidal silver, a natural antibacterial. With its controlled pore size, the Eco filter allows water to pass. The user simply pours water from any source into the filter, and at a rate of one to two liters per hour, the water is purified. The Eco filter can filter more than 22 gallons a week, making it ideal for families, clinics and schools.

Table 4 Description of selected water sector cases (Continued)

G	Barefoot College (www.barefootcollege.org)	Water, education, Renewable Energy, Rural Development, Technology (Hybrid non-profit)	1,513 rainwater harvesting structures have been built in rural schools and community centers with a total capacity of 96.65 million liters of water every year.
H	Water.org (www.water.org)	Water and Sanitation (Leveraged Not-for-Profit)	The Water Credit program targets households with a lower income. Water.org underwrites the start-up costs incurred by microfinance institutions (MFIs) developing water and sanitation loan products, including loans for network connections (to public or private utilities), rainwater harvesting tanks, pit latrines, bio-gas toilets, etc.

The characters A till H are social enterprises active in the water sector and are used in a second comparative case analysis to find similarity patterns. The social enterprises described below all meet the criteria of the Schwab Foundation; hence this study assumes these social enterprises to be successful

Appendix 2

Table 5 Description of selected social business enterprises cases

Sl. Number	Company	Sector (model)	Innovation and activities
I	Bata and Care (Rural Sales Program: Empowering Rural Women)	Generate employment, profitability of the private sector, women empowerment (Business Partnership)	Door to door sales, Rural Sales Program, Rural Maintenance Program
II	Grameen Danone Foods	Poverty alleviation, Nutrition (unique proximity based social business model)	Market prices are set to make the enterprise self sustaining, distribution by local female Grameen Bank beneficiaries, Door-to-door selling
III	BASF Grameen Ltd.	Health, business opportunity, (social business venture)	entrepreneurial activities, Investing in people's entrepreneurial skills, corporate responsibility
IV	Waste Concern	Waste recycling, energy, poverty reduction, job creation and sustainable development (Social Business Enterprise)	partnership with communities, house-to-house solid waste collection, produce organic fertilizer.
V	Kumudini	Medical care, education, empower rural women, manpower, environment (welfare trust)	Free treatment to poor, research and training facilities to women, producing handicrafts. strong network of artisans
VI	Phulki	Child rights and women empowerment (non-profit organization)	Childcare program for children, community level mechanism to reduce violence against domestic girl workers, implement the Child-to-Child (CTC) Approach
VII	KK Tea	Environment, poverty, sustainable development (Cooperative)	Rear organic cattle, interest-free loans, paid back in long-term installments through the selling of milk, cow dung and calves.

Table 5 Description of selected social business enterprises cases (*Continued*)

VIII	HathayBunano	Employment opportunities, (social enterprise)	A network of 32 rural co-operatives, sells toys in abroad, established a Rural Centre employment within the community to prevent worker emigration to cities, Social Compliance Standard
IX	Bengal Meat	Livestock, halal, hygiene (Partnership)	Beef Fattening and Market, Linkage at Farmer's Level, livestock breeding facilities, improve feed efficiency, reduce production cost.

This appendix provides a concise description of the selected cases of the strategic sample. The numbers I till IX are social business ventures used in the first comparative case analysis. The social enterprises described below are working in Bangladesh. Hence this study assumes these social enterprises are successful

Abbreviations

WHO: World Health Organization; UNICEF: United Nations Children's Fund; UNDP: United Nations Development Program; IDA: International Development Association; JICA: Japan International Cooperation Agency; JBIC: Japan Bank for International Cooperation; WASA: Water Supply & Sewerage Authority; DANIDA: Danish International Development Agency; BIPSS: Bangladesh Institute of Peace and Security Studies; SME: Small and Medium Enterprises; BRAC: Bangladesh Rural Advancement Committee; ADB: Asian Development Bank.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

MZH carried out the data collection and analysis, KAN also collected data somewhat and participated in drafting the paper. All authors read and approved the final manuscript.

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