Innovation of Vocational Technology Education

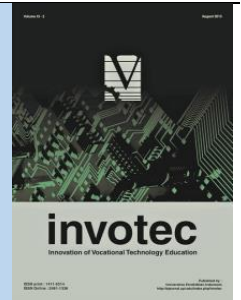Available online at http://ejournal.upi.edu/index.php/invotec

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Well-care in Tondo's Slums: Women-Driven Vocational Learning Knowledge Hubs Toward 2030's Sustainable Development Goals

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A B S T R A C T

Worldwide efforts—such as Sustainable Development Goals and its predecessor Millennium Development Goals—historically offers country policy makers, industry leaders, and proactive citizens an aspirational guiding charter for actions needed to address complex issues that our planet and its inhabitants are facing such as adversities related to poverty, employability, quality education and holistic health. Households who are fighting for mere subsistence often depend on its youngest to work and contribute to the family's economic livelihood and survival. It is not uncommon, for instance, for some children from residential-industrial parts of Tondo to forego free compulsory primary school education in order to scour landfill for valuables that can be traded or sold for basic necessities such as food and water. Millions of impoverished others experience similar hardships around the world. As nationwide achievement is highly dependent upon the well-being of a thriving population—educational opportunities can be pragmatic for those who pursue it if basic needs can be met—holistic well-care for human and economic survival. Entrepreneurship cases are explored, specifically vocational life skills investments by female entrepreneurs which include digital literacy and basic well-being practices.

1. Introduction

Of the 92.3 million Philippines population, an estimated 44% live in slums across its 7,107+ islands (WHO & DHP, 2012). Approximately 13 million people today reside in Metro Manila, which comprise of the capital city on the island of Luzon (Central Intelligence Agency, n.d.). Metro Manila is also comprised of cities, municipalities, and governmental units known as barangays—comparable to neighborhoods but locally governed—which are then comprised of zones that are grouped into administrative districts (Dolan, 1991; Ragragio, 2003).

Tondo dwells in the residential-industrial zone in the northwest area of the City of Manila, still regarded as highly concentrated in poverty (Ragrario, 2003; Nakamura, 2009), homelessness or 'informal settlers' (Nakamura, 2009), slums (Al Jazeera, 2014a-f; Mallonee, 2017; McDonnell, 2017). These slums are even attracting tourists for its 'slum tours' (Smokey Tours, n.d.; Lowe, 2014; Blau, 2018).

Worldwide efforts—such as Sustainable Development Goals (SDGs) and its predecessor Millennium Development Goals—historically offer country policy makers, industry leaders, and proactive citizens an aspirational guiding charter (SDSN, 2015; United Nations, 2016, 2018a; World Bank, 2017). SDGs aids in the actions needed to address such adversities our planet and its inhabitants are facing like poverty, employability, holistic health, and quality education, serving the interest of humankind to ensure "benefits of our modernizing world are shared among all…not just by the privileged few" (UNESCO, 2017, p. 22).

While economic growth and its definite pathway to reduce such poverty remain debatable, the attainment of quality education and poverty decline is strongly linked (Asian Development Bank, 2009; Marx, Stoker, Suri, 2013). Despite having access to basic education, in theory and legislation for example, its formal education is not a commodity that all Philippines residents can experience. Subsidization of primary and secondary education in the Philippine educational system is designed to provide free access to education (National Statistics Office, 2008), preparing students for the trajectory of employment, small business or entrepreneurship options, as well as further vocational and/or degree-based college education (Office of the President, 2015). As nationwide achievement is highly dependent upon the well-being of a thriving population—educational opportunities can be pragmatic for those who pursue it if basic needs can be met for human survival.

It is not uncommon, for instance, for some children from Tondo to forego free compulsory primary school education in order to scour landfill for valuables that can be traded or sold for basic necessities such as food and water (Mallonee, 2017; McDonnell, 2017). Households who are fighting for mere subsistence often depend on its youngest to work and contribute to the family's economic livelihood and survival—and thus youth must miss such learning opportunities. It is not surprising therefore that families who can spare their children from harsh working conditions are often those unsurprisingly with some wealth in the area and because secondary school is not compulsory, it is a luxury that the most impoverished families can ill-afford (Fraizer & Farina, 2014a; 2014b). This deficiency in education aids to perpetuate the cycle of poverty as these circumstances is not distinct to Tondo—millions of impoverished people experience such hardships around the world (Marx, et. Al., 2013; World Bank, 2017).

2. Method

Vocational life skill investments are explored, specifically women-initiated entrepreneurship efforts that yielded digital literacy such as basic technology knowledge that can yield employable skills with higher pay. Review of publicly accessible literature and digital media was conducted. This paper focuses on the themes that surfaced, specifically those related to knowledge hubs, economic independence, and entrepreneurial ecosystems.

3. Result and Discussion

A variety of programs and policies address this challenge and partnerships continue to forge between education organizations, entrepreneurs, and public-private partners to accelerate elevation of quality of life and well-being. However, the problem of poverty still persists. Opportunities abound for entrepreneurs and others in the community to step in to fill this gap, most especially for women (Walker, 2017; AnitaB, 2018b; United Nations, 2018b).

3.1. Case in point: Jane Walker and Knowledge Hubs

Jane Walker was one such entrepreneur who aimed to address this gap in collaboration with public sector and local in-country partners via its UK-based charity Philippine Community Fund in 2002 and the Philippines-based Philippine Christian Foundation in 2003, now known as Purple Community Fund (France-Presse, 2012; Purple Community Fund, 2017; Walker, 2017). Initially operating an inaugural school made from recycled containers, the Philippines government donated land near Smokey Mountains to Walker's cause (Lee-Brago, 2006; Collins, 2010). With limited resources to construct a traditional school infrastructure, Walker collaborated with a shipping company and a team of volunteer architects and engineers to design and build a school from recycled shipping containers.

The community-based school offered free education, breakfast and lunch, school supplies, uniforms, and shoes to approximately 900 elementary and secondary students.

"Most of the children are illiterate when they arrive…and malnourished" (Walker as cited in McNeill, 2009, par. 11). Poor performance in the school was often linked to malnourishment and

undernutrition (Pennington, 2017). Health care for the students and their families was therefore provided, and students earned food for attendance, academic success and positive behavior (Soroptimist International, 2016).

Students from the program not only learned curriculum tailored for their needs of survival, but resources for their parents were offered too. Recognizing the need of the children to help support their families, the school allows children who work in the mornings to attend school in the afternoon, and vice versa (Manila Bulletin, 2009). The school also provides classes for the parents in literacy, parenting, and family planning. As the ability of children to focus on their education is dependent upon the ability of families to support themselves, the School offers an employment training program.

Parents of children attending the school, graduates of the school, single parents, and the elderly and disabled can train in sewing, jewelry-making, and crafting classes, where they learn to make products from recycled materials; these are sold on the web site and the proceeds used to support educational programming (Purple Community Fund, 2017). After initial high rates of attrition, the program was amended to include child care services. These opportunities serve as knowledge hubs, a space dedicated to learning—and in this case where food-for-training incentive programs similar to the school attendance incentives are provided. This approach can help address the pressing needs of the impoverished, by providing them the opportunity to secure, manage and sustain their own livelihoods.

Knowledge hubs help fill a vocational skills gap as courses that introduce employable skills such as technology, business, and entrepreneurship, do not enter the curriculum until secondary education. Such hubs, such as the Yunus Center at the Asian Institute of Technology can serve as an "enabling platform to accelerate the spread of technologies through enterprise-led development to address social challenges" (YCA, n. d., par. 1). Other knowledge hubs, such as Open Educational Resource Commons (OER, n.d.), runs a worldwide movement in support of access to quality education to aid educators and all learners by providing open education resources. These hubs help facilitate wider knowledge-sharing and enriching flow of learning materials for learning and teaching—which can also be effective for independent vocational learning for those who cannot afford to send their children to school.

3.2. Case in Point: Entrepreneurial Ecosystems and Chiara Amisola

The Department of Social Welfare and Development promotes community-based enterprises to women, including food production, cooperatives, and cottage industries (Lazo, 2015). Other resources–public, private, and non-governmental–include the Cottage Industry Technology Center, Technology and Livelihood Resource Center, APEC Center for Technology Exchange and Training for Small and Medium Enterprises, Philippine Business for Social Progress Foundation, and Livelihood Revolving Fund and Capability Building Program for Poor Women (Philippine Bureau of Labor and Employment Statistics, 2001).

Potentially the ability to compete in a marketplace where low wages or underemployment rests in the hands of its citizens—particularly women entrepreneurs, small business owners, and vocational educators (National Commission, 1999). Yale-bound college freshman from Manila, Chiara Amisola, for instance, was recently awarded the Student of Vision Abie Award by Anita Borg Foundation at the Grace Hopper Women in Computing for Developers' Society—a student club turned non-profit advancing social good through computer science education (AnitaB, 2018a; 2018b). From early exposure to technology at primary school age, to securing internships at local technology startups, and raising awareness for humanitarian causes—such enriched learning experiences is not the norm for residents of Manila and most especially Tondo. Dedicated spaces to incubate community-driven hubs and technological advances, such as those founded by Amisola, are example efforts that help move the nation forward—however this movement is still on its way for deep and sustainable momentum.

4. Conclusion

Some of the most important work going forward will be the continued investment in human capital—engaging directly with families so that digital/financial literacy and well-care (Roots of Health, 2017; Swanopoel, 2018) offered to youth can be sustained. If innovative learning is to go to scale and become the norm for youth, parents need assurance that basic needs can be met and to be empowered to enable learning opportunities for off-springs. Increasing access and participation is an ongoing challenge worldwide, especially females (AnitaB, 2018; United Nations, 2018b).

According to the Economic and Social Commissions for Asia and the Pacific, fostering women's entrepreneurship is an important investment for such innovations, with the following recommendations below:

- Address systemic factors exacerbating gender inequality, including in entrepreneurship.
- Implement ASEAN commitments to support women-owned and operated SMEs.
- Enhance access to innovative financing for women entrepreneurs.
- Incentivize the use of ICTs by women entrepreneurs.
- Promote innovation and growth-oriented business environments for women-owned and operated SMEs.
- Engage women entrepreneurs in shaping national economic and entrepreneurship policies.
- Strengthen business support and capacity development services for women entrepreneurs.
- Reduce the costs of doing business for women entrepreneurs.
- Facilitate participation of women entrepreneurs in domestic and international value chains.
- Ensure that the status of women entrepreneurs is well captured in national statistical systems. (United Nations, 2018b, p. 10)

Amazon Educate, Google.org, Microsoft Education Community and similar entities with growing networks of change makers, for instance, can be most transformative as a collective–learning from each other's best practices on leveraging technologies to turn barriers into venues for optimizing digital learning and technological access that also address the world's toughest problems (Fraizer, 2009; Fraizer, Arora, Krishnakumar, 2009). Mechanisms to gauge project impact and thought partnerships are needed to ensure landscape analysis and common metrics for evaluating learning programs and shared strategy for gathering data about the impact on learners and community in impoverished areas such as Tondo.

By availing these resources and incentives, women can make significant contributions to their families, often with the flexibility required to balance work with household and child-rearing expectations (United Nations, 2018b). These women can then serve as behavioral models to encourage school-aged girls to explore their own potential for economic independence and career aspirations (Root of Health, 2017). Greater still than the encouragement of personal and professional fulfillment is the example of women as contributors to their communities at large (Walker, 2017), learning that meaningful work and family life are not mutually exclusive (AnitaB, 2018). More than simply meeting the needs of their own households (National Commission on the Role of Filipino Women Philippines, 1999), women entrepreneurs have the opportunity to support the goals of their barangays, their districts, their cities, and their nation–through both economic activities, and the freeing of children from hard labor to pursue education without the burden of supplementing household finances.

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