

"BOP BUSINESS ON POVERTY REDUCTION IN DEVELOPING COUNTRIES: EFFECTS AND STRATEGIES"

Research Paper

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Abstract

Alleviating poverty has long been addressed as one of the most significant social issues in the developing world. The Base of Pyramid (BOP) business has become one of the most innovative ways to mitigate poverty by private sectors, while much less existing research has been conducted on the effects on poverty reduction and on the BOP business development strategy. Using secondary data compiled between 2000 and 2020, primarily from the World Development Indicators, and multiple linear regression modeling, the BOP business cases predicting the R^2 variance in poverty headcount ratio was evaluated in 61 developing countries. The cases were found to be a significant predictor ($F [1, 1268] = 12.822, p = .000$), and thus justifying a theoretical framework representing poverty reduction and the BOP business maturity. Also, the grounded theory developed a conceptual framework of the BOP business development strategy that combines the economic development conditions per income level.

Keywords: Poverty, BOP Business, Developing Countries, Effects, Strategies

1 Background

While the world economy has dramatically advanced since World War II, many economies have struggled for growth, prosperity, and development. The World Bank (2021) has paid close attention to eradicating poverty for further development in many parts of the world. Previous studies by other researchers have signified the Sustainable Development Goals (SDGs) realization in developing countries to be one of the world's most significant social problems (UN, 2021). Since the outbreak of the COVID-19 pandemic in early 2020 (WHO, 2021), the world economic outlook has further deteriorated (IMF, 2021). Remarkably, developing countries have faced a higher poverty rate as one of the most serious social issues (World Bank, 2021). Under the situation, promoting poverty reduction should further be made even under the pandemic.

It has been common sense that the development sectors, including the governmental sectors, the international organizations, the Non-profit Organizations (NPOs), and the Non-government organizations (NGOs), have been represented to tackle the poverty issue (Otsubo et al., 2009). However, the recent trend has changed; the development sectors have attempted to reduce poverty by employing their business products and services, especially with inclusive business, fair-trade, CSR.

Notably, the "Base of Pyramid" (BOP) business has been paid attention to by international organizations and governments. The BOP business's primary aim is to improve impoverished people's lives by actively involving them in the businesses as consumers, producers, sellers, or distributors (London, 2007). Still, the BOP business has not become a panacea for poverty reduction in all the areas. Since the business model is a relatively new approach, it is necessary to see how much impact poverty reduction has as objectively as possible. Also, because developing countries have different

socioeconomic and cultural backgrounds, clarifying the BOP business development's essential conditions should further be considered.

Based on the social problem and background, this study covers business economics and strategic planning, especially with the motivation of analyzing the impact of the BOP business on alleviating poverty in developing countries. Besides, it proposes a conceptual framework relevant to the BOP business conditions for strategic management. In this respect, this study will significantly be contributing to business practice and knowledge advancement. The literature review starts with the introduction of the theory and practices relevant to poverty in the developing country, the practice of the traditional approach to poverty, the BOP approach to poverty, and the identification of the research gaps that were addressed in this study.

2 Review of Literature and Identifications of Study Gaps

2.1 Review of literature

Literature review is composed of two items of “Poverty in Developing Countries,” and “BOP Business Approach to Poverty Reduction” accordingly.

2.1.1 Poverty in developing countries

Poverty can be defined as “a situation where people find it inaccessible to a minimum fundamental in leading their lives, including education, job, food, medical insurance, water resource, residence, or energy.” (UNDP, 2021). Since World War II, plenty of international organizations and other agencies have tackled with poverty reduction in poor economies as development assistance. Nevertheless, poverty is one of the most crucial social issues in the world.

The World Bank has their own database of the *World Development Indicators* (WDI, 2021) for analyzing the poverty related indicators. Table 1 represents the national population, the number of poor under 1.9US\$ per day, poverty headcount ratio, poverty gap ratio at 1.9US\$ in 2014 to 2015 per six regions of East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, Sub-Saharan Africa, and World. As can be seen in the table, it can be observed that sub-Saharan Africa has the highest proportion of the poverty headcount ratio with the figure of 42.3% in 2014. Also, there is the second highest proportion of poverty headcount ratio in South Asia with the value of 15.2% in 2014. Meanwhile, East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, and Middle East & North Africa have considerably lower rate of poverty headcount ratio with the range of approximately 2 to 4% in 2014. Also, poverty gap ratio, which stands for shortfall in income or consumption from the poverty line \$1.90 a day, had the same trend; sub-Saharan Africa recorded the highest rate of 16.1%, followed by South Asia with the figure of 2.8%. On the other hand, the other areas had the lowest proportion of the poverty gap ratio with the figure of approximately more or less 1%.

Based on the analysis of the poverty trend by region, we can simply conclude that two groups are categorized; one is to succeed in poverty reduction until now, and the other is to fail in poverty reduction. Ultimately, the former is East Asia and the Pacific, and the latter is sub-Saharan Africa and South Asia. Indeed, Otsuka (2014) expressed that the current development status in the world can boil down to the successful Asia vis-à-vis the failure Africa. These impoverished people under \$1.90 are categorized as the so-called “Base of the Pyramid,” with the figure of approximately over 4 billion in the world (Hammond et al., 2007), while Colliar (2008) called it “the Bottom of Billion” in his study. The extreme poverty issue persists even currently.

Poverty is multi-dimensionally applied to other perspectives than income status. For instance, the UNDP (2021) interestingly established their statistics of the Human Development Index (HDI) with the three elements of life expectancy, literacy rates, school enrollment rates, and GDP per capita. The essence of the idea comes from Sen’s “Capability Approach” (Sen, 1999, p.5). With the concept, the

UNDP emphasized the significance of measuring poverty from other perspectives than individual income, ranking the index scores per nation in the world (UNDP, 2021).

	Poverty Headcount Ratio under \$1.90 in 2014 (%) * ₁	Poverty gap at \$1.90 a day in 2014 (%) * ₂	Number of people below the \$1.90 poverty line in 2015	Number of Population in 2015
East Asia & Pacific	2.7	0.5	18,573,500	2,282,863,725
Europe & Central Asia	1.8	0.5	416,600	906,707,413
Latin America & Caribbean	3.9	1.3	1,462,000	622,301,041
Middle East & North Africa	2.5	0.5	711,400	425,821,771
South Asia	15.2	2.8	53,613,800	1,749,417,067
Sub-Saharan Africa	42.3	16.1	14,902,300	995,458,498
World	10.7	3.2	89,689,700	7,339,076,654

Table 1. Poverty Situation by Region

Note. Referencing from World Development Indicators (2021), Hara summarized.

*1: Poverty Headcount Ratio: It is the percentage of the population living on less than \$1.90 a day at 2011 international prices (WDI, 2021).

*2: Poverty Gap Ratio: It is the mean shortfall in income or consumption from the poverty line \$1.90 a day (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line (WDI, 2021).

2.1.2 The BOP Business Approach to Poverty Reduction

The BOP business is inextricably linked to poverty alleviation. It was originated by two scholars, Hart and Prehalad (2002), in their study report in 2000. The BOP business can be defined as a behavior-oriented model or an approach that helps business organizations sufficiently promote their activities in undeveloped and unserved markets (Mathur et al., 2016). The BOP business cases, especially in the U.S., the U.K., and Japan, have steadily risen for balancing poverty reduction and maximization of the business profits.

The BOP business is composed of several styles: Firstly, the development sectors, especially the United Nations (2018), have advocated the Sustainable Development Goals (SDGs) through cooperation, collaboration, and coordination (Zomorrodian, 2011). The organization has encouraged "inclusive business" since 2006 by launching "Growing Inclusive Markets" for alleviating poverty and improving the lives of others (UNDP, 2021). Secondly, fair-trade is a business model that can support people's lives in developing countries by purchasing the products in the consumer market in developed economies (Ruben, 2008). For alleviating the equality between the rich and poor economies, the fair-trade model has been developed and expanding the market scales since 2004 (Smith, 2009). Finally, the Corporate Social Responsibility (CSR) activity can encourage business organizations to create new values and new markets for enforcing corporate competitiveness, sustainable development, and activation of the entire economy simultaneously (Du et al., 2010). With the styles, the BOP business has been promoted to maximize the group benefits and mitigate poverty.

Theoretically, Simanis and Hart (2008) formulated the framework of the BOP business development stage. It has historically three steps of first-generation BOP (BOP 1.0), second-generation BOP (BOP

2.0), and third-generation BOP (BOP3.0). BOP 1.0 is for “selling to the poor,” while BOP 2.0 is for “creating mutual value (CMV),” respectively (Simanis and Hart, 2008). BOP 1.0 aimed at having the poor involved with the business for earning benefits until 2007. BOP 2.0, then, aimed at creating the value chain from scratch and grasping the market needs accurately, which was the mainstream until 2012. Then, BOP 3.0 was conceptualized by introducing open innovation approaches and more participatory governance structures under the concept of “wisdom of the crowd” since 2013 (Cañeque and Hart 2015). In this way, the poverty reduction approach via businesses should further be signified.

2.2 Identifications of study gaps

Through the review of literature, two major gaps were found to be framed as research problems below.

Firstly, despite some advantages of the business style, much less research on the impact of the BOP business on poverty reduction was identified. Indeed, the significant factors of reducing poverty have been led representatively by the governments and the international organizations (Sen, 1999). The poverty issue has been triggered, primarily by the insufficient infrastructure, unskilled labor, market, education, medical, less job-opportunity, etc. (ADB, 2017). Also, Karnani (2009) emphasized that since the BOP approach depends on the free market's invisible hand for mitigating poverty, the nations should further extend a considerable visible hand to the poor to help them avoid poverty. Thus, it is necessary to quantitatively see the impact of the BOP on poverty reduction in a certain period.

Secondly, despite the different socio-economic and cultural backgrounds in impoverished areas, expanding the BOP business should be considered further. In various market conditions, industries, products, and services, the processes or the flows of putting the BOP business into practice should be different (Inoue, 2012). Nevertheless, the common conditions should strategically be arranged. Indeed, Hart et al. (2016) mentioned that management theory and research have not progressed at the same pace as the BOP business. Therefore, knowledge relevant to parameters for the integration of business strategy into poverty alleviation remains cloudy. From this point of view, the framework relevant to the BOP business development should conceptually be developed.

3 Objectives and Research Questions

3.1 Objectives

This study's primary purpose is to contribute to mitigating poverty in many parts of the world by quantitatively clarifying the impact of the BOP business on poverty reduction and formulating a conceptual framework of the BOP business development with the essential conditions of the BOP in developing countries via qualitative study, primarily through case studies. Based on the study purposes, here are the research questions (RQs).

3.2 Research questions and hypotheses

RQ1: Will the BOP business for alleviating poverty in developing countries predict a statistically significant percent change in R^2 variance when controlling the other factors of governance, industrialization, labor market, infrastructure, and human development composite values?

H0: There is no statistically significant contribution of the BOP business to the percent change of the R^2 variance in developing countries' poverty alleviation composite scores when controlling the other factors of governance, industrialization, labor market, infrastructure, and human development composite values.

H1: There is a statistically significant contribution of the BOP business in developing countries to the percent change of the R^2 variance in developing countries' poverty

alleviation composite scores when controlling the other factors of governance, industrialization, labor market, infrastructure, and human development composite values.

RQ2: How can the framework of BOP business development as an essential condition in any developing country be formulated and recommended?

4 Theoretical and Conceptual Framework

4.1 Theoretical framework: poverty and BOP business

Theoretical framework refers to a general or broader set of ideas by scholars for demonstrating the relationship that exists between the primary variables, primarily through quantitative research (Dickson et al., 2018). To test hypotheses quantitatively, I used frameworks in a theoretical approach. Specifically, with the research purposes of contributing to the poverty reduction by clarifying the influence of the BOP business approach in developing countries, two primary perspectives of the poverty reduction and the BOP business were developed.

The three frameworks by Prehalad (2002), Vernon (1966), and Tran (2016) helped signify the first research purpose of contributing to mitigating poverty by clarifying the influence of the BOP business on poverty in developing countries from the perspective of poverty reduction, economic development, and interacting with other development issues relevant to poverty, including the contribution of promoting education and medical health opportunities, labor productivity in industries and individual skills development to industrialization via the BOP business with larger and broader scales. These frameworks suggested that poverty reduction may be overcome by enhancing the BOP business while exploring interactions with other development issues relevant to poverty.

More importantly, the three frameworks helped me build a theoretical framework that visually demonstrates the relationship between poverty reduction stage and the BOP business opportunities, primarily in reference to the economic development stage model formed by Tran (2016). This framework is composed of income stages to be achieved for further development in the developing countries. The framework can show the connection of the critical variables of poverty headcount ratio (World Bank, 2021) used for poverty and the BOP business activities in this study. With the primary variables, the quantitative approach, the first research purpose, and the research question are linked to the theoretical framework, notably in observing the impact of the BOP business opportunities on poverty alleviation. Thereby, the framework is generalized by traditional models.

Based on these three frameworks of Prehalad (2002), Vernon (1966) and Tran (2016), a new framework can ultimately be established. Figure 1 below represents the relationship between poverty reduction and the BOP business maturity by income levels, which was primarily applied by the authors. The BOP business maturity comes from the concept of the product lifecycle theory by Vernon (1966), starting from introduction, growth, maturity, saturation, and decline. Poverty reduction can correspond to the lifecycle of the BOP business activity. Specifically, Line AB stands for the low-income stage with the highest poverty ratio; the countries in the stage should launch and expedite the BOP business promotion as introduction and growth. Then, the BOP business maturity should further be higher for overcoming the LMIT (Line BC and CC') as maturity and transition to saturation. Also, under the line C-D and DD' with the need for the promotion of science and technology and the innovation (Tran, 2016), the BOP business maturity should further be declined for finally achieving E, and thus escaping the HMIT. This framework can help to make the relationship between poverty reduction and the BOP business maturity visually more evident.

From this point of view, this theoretical framework can show the connection between the key variables of the poverty ratio and the BOP business maturity. With the main variables of the poverty headcount ratio used for the opportunities, the quantitative approach, the first research purpose, and the research question are connected to this framework, notably in observing the impact of the BOP business cases on the poverty headcount ratio. Thus, the framework can be rationalized with the existing models.

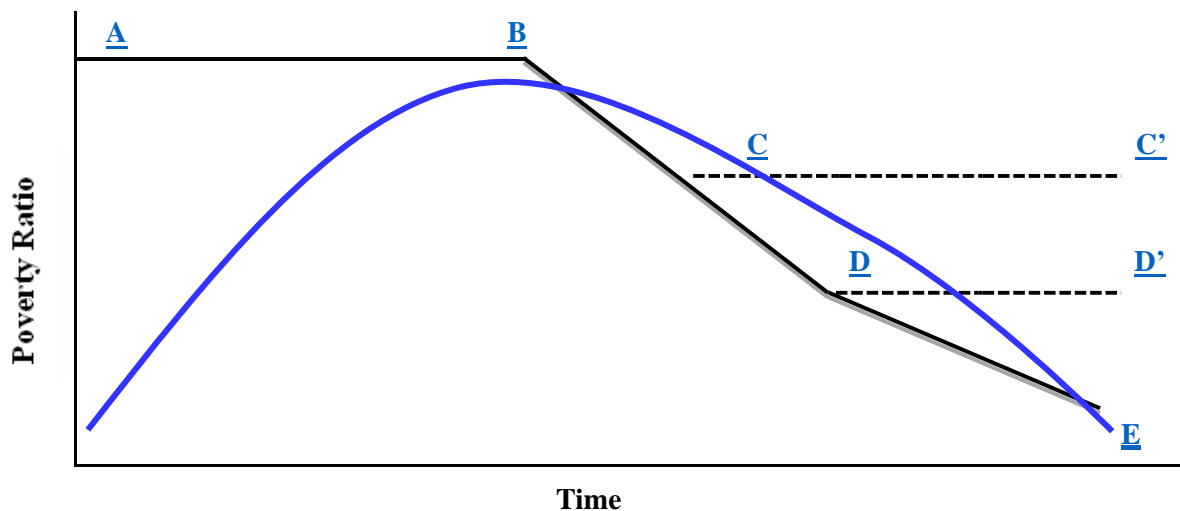


Figure 1. *A Theoretical Framework of Poverty Reduction and the BOP Business Maturity in an Economy*

Note. Based on Prehalad (2002), Tran (2016), and Vernon (1966), Hara formed own framework representing the relationship between poverty reduction and BOP business activity in developing countries. The blue line represents the BOP business maturity (introduction, growth, maturity, saturation, and decline), which can hypothetically correspond to the poverty reduction stage.

4.2 Conceptual framework

Meanwhile, conceptual framework refers to an analytical tool that is used to have a comprehensive understanding of a phenomenon in various fields of studies by visually explaining key concepts or variables and the relationships between them that need to be studied (Swaen, 2021). I employed the qualitative study to form a framework relevant to the BOP business development strategies.

Also, I found three frameworks by Simanis and Hart (2008), by Otsuka (2014), and by Tran (2016) relevant to the second research purpose of this study, developing the BOP business process for poverty reduction in developing countries. Remarkably, Simanis and Hart (2008) formulated the framework of the BOP business development stage. It has historically three steps of first-generation BOP (BOP 1.0), second-generation BOP (BOP 2.0), and third-generation BOP (BOP3.0). BOP 1.0 is for “selling to the poor,” and BOP 2.0 is for “creating mutual value (CMV),” respectively (Simanis and Hart, 2008). Then, BOP 3.0 is for open innovation approaches (Cañeque and Hart, 2015).

Based on these frameworks, a new conceptual framework can ultimately be established. Table 1 shows the BOP business development strategies for poverty reduction per income group; low-income, lower-middle income economies (LMIEs), and higher-middle income economies (HMIEs). It can help visually to show the roadmap of poverty reduction per income stage by indicating which development issues should be addressed and which BOP stage should be focused on as appropriately as possible.

One significant point in the framework is that five sequences were arranged for promoting the BOP business. In common, all countries need to arrange governmental ownership, infrastructure, and education. In arranging the infrastructure, the next sequence required for development is to promote technological transfer and development from overseas through further investment in technology and trainings (Ohno, 2010). Then, the FDI can further be enriched at the fourth stage. Finally, the BOP business can further be promoted via the FDI and the other development assistance methods.

Finally, as for the BOP development strategy, I used three types of BOP 1.0, BOP 2.0, and BOP 3.0: The low-income economies should focus on the BOP 1.0 for reducing poverty as an immediate approach. Also, the LMIEs should enhance not only the BOP 1.0 but also BOP 2.0, because they should accelerate the industrial promotion primarily through creation of the value chain. Finally, the HMIEs should promote BOP 3.0 for expediting technological innovation towards high-income level.

	Development Strategy for Stepping into Promoting BOP Business					BOP Business Development Strategy *1		
Income Level	Step 1	Step 2	Step 3	Step 4	Step 5	BOP 1.0	BOP 2.0	BOP 3.0
Low-Income Economies	Education Infrastructure, and Ownership	Technological Transfer and Development from Overseas	Enhancing Business Credibility	Promoting FDI	Developing BOP	○	△	×
Lower Middle-Income Economies	Education Infrastructure, and Ownership	Technological Transfer and Development from Overseas	Enhancing Business Credibility	Promoting FDI	Developing BOP	○	○	△
Higher Middle-Income Economies	Higher Education for Science and Technology	Technological Transfer and Development from Overseas	Enhancing Business Credibility	Promoting FDI	Developing BOP	×	○	○

Table 2. A Conceptual Framework of a BOP Business Development Strategy for Poverty Reduction per Income Stage

Note. Based on Simanis and Hart (2008), Otsuka (2014), and Tran (2016), Hara formed the conceptual framework that represents the BOP development strategy for poverty reduction in developing countries. Per income level, processing five steps for BOP business to be arranged needs to be developed, and thereafter prioritizing the types of BOP 1.0, 2.0, and 3.0.

*1. “○” represents the most significant and recommended level, “△” does less recommendable, and “×” means not recommendable.

5 Methodologies

5.1 For RQ1

This study's primary purpose is to contribute to mitigating poverty in many parts of the world by quantitatively clarifying the impact of the BOP business on poverty reduction and formulating a conceptual framework of the BOP business development with the essential conditions of the BOP in developing countries via qualitative study, primarily through case studies.

5.1.1 Data-collection and treatment

Overall, for arranging the dataset to approach RQ1, I used the secondary data in several variables for covering the missing data, specifically the IV of “Base of the Pyramid Number of Cases,” the DV of “Poverty head count ratio,” and the CVs of “Governance,” “Industrialization,” “Labor market,” “Infrastructure,” and “Human Development.” The dataset listed the World Development Indicators of WDI, the World Governance Indicators of GNI, the Human Development Index of HDI, and List (2017) ($N = 1281$). The samples gained through the publicly accessible data from the international organizations were completely different. Specifically, for the DV of poverty headcount ratio (at \$1.90 a day percentage of population), the resultant sample was obtained through the WDI (2020) with the figure of $n = 361$. Secondly, the IV of the BOP business cases had the figures of the sampling; $n = 26$ were gained from the previous scholar, List (2017), as well.

Regarding the BOP business: Number of Case, as previously described, I did not obtain a sufficient number of samples ($n = 26$) from the previous scholar of List (2017). The author collected 130 cases of the BOP businesses until 2017. These cases were found only in the year of 2017, applying to randomly chosen 61 countries in this study, resulting in only 26 samples. As Raj and Aithal (2018) stated previously, one of the most serious issues in conducting the research on the BOP business, there is no big data. List (2017) also searched 130 cases in 2017 from different types of sources, including newspapers, academic databases, journals, web-engines, books, etc. (List, 2017). In this way, the data collection conducted by the author might be inaccurate, while they can still be used as the number of the cases of BOP business. Though the replaced missing value is returned based on statistical algorithms from the present values (Enders, 2010), the multiple-imputation method would not sound incomplete. Overall, in considering several approaches to handling the insufficient data, I opted to replace missing data by employing the SPSS imputation function resulting in a retained sufficient sample size ($N = 1281$) in keeping the analysis as unbiased as possible.

5.1.2 Methodology

I employed the multiple-linear regression analysis this time. One reason for this is that I primarily observed the effect of the BOP business cases on the poverty headcount ratio in the randomly selected 61 economies, especially by gaining insight into the figures of R^2 variance as coefficients of determination. The multiple-linear regression analysis allows me to use the DVs' general values and the interval ratios of the IVs to be measured. In this regard, using the multiple-linear regression model allowed me to answer the research questions using the values of R^2 increase. The original formula for the multiple linear regression is shown as follows:

$$Y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon \dots\dots\dots (1)$$

For a brief explanation of each code, “Y” means the predicted value of the dependent variable, “ β_0 ” stands for the y-intercept (value of y when all other parameters are arranged to 0), “ $\beta_1 X_1$ ” represents the regression coefficient (β_1) of the first independent variable (X_1). It is worth describing how increasing the figure of the independent variable has on the predicted y value (Bevans, 2020). Then,

“βnXn” demonstrates the regression coefficient of the last independent variable. Finally, “ε” represents model error. For example, how much variation there is in our estimate of “Y” needs to be considered. In applying the official formula (1) above to this study, I made the formula for the RQ as (2) below:

$$Y_{gni/ici} = \beta_0 + \beta_1 X_{1oth, facs} + \beta_2 X_{2bop} + \varepsilon \dots\dots\dots (2)$$

For simplicity, I made each code for RQ1 specific, e.g.) the code “_{phr}” represents poverty headcount ratio for RQ1 as DV. Also, the code “_{oth, facs}” means the alternative factors, including *Governance, Industrialization, Labor Market, Employment, Infrastructure, and HDI* fixed as the CVs. Finally, the code “_{bop},” stands for the BOP business case as the IV. The basis of the multiple linear regression model using interval-ratio level data allows relevant interpretation of these data. Thus, I switched to the multiple-linear regression model this time.

5.2 For RQ2

5.2.1 Data-collection and treatment

Since I found the necessary data relevant to the development strategies for poverty reduction, development plans for poverty reduction, and BOP business models, types of the BOP, and the strategies per industry. I employed the archive data, primarily from the international organizations, the government agencies in 30 economies in Southeast Asia, South Asia, Central Asia, Middle East, South Africa, and sub-Saharan Africa, as the primary data due to the most significant entities in this RQ. Specifically, the archive data relevant to the development strategies for poverty reduction and the BOP development strategies or frameworks were obtained. Consequently, 45 resultant samples were found as of these entities sampling. In these ways, I obtained sufficient amount of data for qualitative analysis for RQ2.

5.2.2 Methodology

I made a procedure of conducting the document analysis for the grounded theory approach as follows. Firstly, I conducted the data-collection from the available web-sources, notably including international organizations, scholars’ existing studies, local governments. The data were relevant to the three platforms; “1. Development strategies for poverty reduction from international organizations,” “2. Development plans relevant to poverty reduction from the government agencies of 30 economies,” and “3. BOP business models, types of the BOP, and the strategies per industry, including first, second, and third industries.” Consequently, I found 45 samples sourced per organization, author, and nation relevant to development strategies for poverty reduction and the BOP business models and frameworks. These are authentic which were officially issued from the international organizations, governments, and research institutes.

After the data-collection through the records’ review, I analyzed the data and excerpted the texts which are directly related to the platforms above. From the excerpted texts, the way I analyzed them was to describe the executive contents one by one. Then, the grounded theory is represented as the inductive approach to demonstrating the uses of the three-step coding process; open, axial, and selective coding. More significantly, the open, axial, and selective coding processes help us develop a cyclical and evolving data loop. In that way, the scholars can interact, are constantly comparing data, and applying data reduction and consolidation techniques (Williams and Moser, 2019).

Firstly, the open coding refers to the method to make a procedure for developing categories of information by labelling from the summarized description as the first stage (Charmaz, 2006). When labelling the description, I made categories with around 10-word description or a phrase as the most significant items for poverty reduction in the selected countries. I made 45 categories in broad initial thematic domains.

Then, moving on to the axial coding as the second stage of analysis, I interconnected the categories that I made in conducting the open coding (Charmaz, 2006). Out of 45 categories, I integrated them into 15 categories. In the first platform of “1. Development strategies for poverty reduction from international organizations,” I have seven samples which are composed of six international organizations (World Bank (2021), ADB (2004), AfDB (2004), UNDP (2021), IMF (2021), and OECD (2021)) and one academic researcher of Otsuka (2014). I classified these eight samples into two categories; the former is from the international organizations, and the latter is from the scholars, because I found some common essences of the development strategies for poverty reduction in the developing world from these six agencies. Then, as for the second platform of “2. Development plans relevant to poverty reduction from the government agencies of 30 economies,” these 30 categorized samples were integrated into six components per region; Southeast Asia, South Asia, Central Asia, Middle East, Sub-Saharan Africa, and South America. Indeed, when classifying these chosen 30 economies into three income levels (Low, Lower-middle, and Higher-middle), I found the income stages in each area are almost same, despite merely several different cases. For instance, four economies in South Asia (India, Bangladesh, Nepal, and Pakistan) are at the same income stage of lower-middle income. More importantly, the poverty reduction strategies were similar to each other per region. Therefore, these 30 samples were squeezing down to six categories. Finally, as for the third platform of “3. BOP business models, types of the BOP, and the strategies per industry, including first, second, and third industries.” These seven samples were reduced down to six categories. I found two samples considerably similar to each other relevant to the goal of the BOP business model.

Finally, the selective coding was conducted with the procedure for building a story that connects the categories producing a discursive set of theoretical propositions as the third stage of the analysis (Charmaz, 2006). 15 categories at the second stage of the axial coding were reduced down to three categories simply along with the three platforms. I found the common thematic items per each platform. Finally, these three categories were integrated into one theory developed for answering RQ2.

6 Study Results

6.1 For RQ1

Table 2 shows the results of the most appropriate models executed. The summary of the output was generated from the SPSS with the imputed data. In paying close attention to the items of “R Square (R^2),” “Adjusted R Square (Adjusted R^2),” and “R Square Change (R^2 Change),” accordingly, Model 1 had the figure .613 in R, while R^2 .376 with adjusted R^2 .371, respectively. With these outcomes, the R^2 change had the value of .376 with Significance in F change .000 eventually. Model 2 is the case of putting the BOP business cases (IV1_BOP) with the figure of the R^2 was .382 with adjustment .377, while R^2 change had the value of .000, which is a deduction from the R^2 in Model 1. Examining Model 2 as the final model, the “Adjusted R^2 ” was 0.377; approximately 37.7% of the BOP business cases account for the primary predictor variables of Poverty headcount ratio in the randomly selected 61 developing countries. In a word, the poverty headcount ratio is not strongly influenced by the accumulated effects of the BOP business cases. A remaining 62.3% of the predictive influencers remain unmeasured or otherwise unidentified.

Further, in paying attention to the item of “Sig. F Change,” the figures are .000 in Model 2, illustrated significant ($p < .05$). In a word, I saw the significance in the transition of Model 2 with the missing data imputed based on reported data means. To further investigate these significant outputs, I evaluated the regression model ANOVA outputs for RQ1. Both ANOVA Models 1 to 2 were significant ($p < .000$) illustrating a significant fit of data (see Field, 2018). With the Durbin-Watson figure computed during 1.50 to 2.50, I remain cautious in assuming my IVs are acting independently in the overall models. Based on these perspectives for testing the RQ1 hypothesis, it was possible to be in favor of the H_1 at least from the statistical result. Consequently, for RQ1, I rejected the null hypothesis (H_0).

Table 2

Multiple-Linear Regression Model Outputs for RQ1

Model summary ^c									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Model Summary				
					R Square change	F Change	df1	df2	Sig. F Change
1	.613a	0.376	0.371	17.7020	0.376	69.588	11	1269	0.000
2	.618b	0.382	0.377	17.6201	0.006	12.822	1	1268	0.000

a. Predictors: (Constant), CV1_Indust., CV2_Labor, CV3_Infra, CV4_GV_1, CV4_GV_2, CV4_GV_3, CV1_GV_4, CV1_GV_5, CV4_GV_6, CV_5_HDI

b. Predictors: (Constant), CV1_Indust., CV2_Labor, CV3_Infra, CV4_GV_1, CV4_GV_2, CV4_GV_3, CV1_GV_4, CV1_GV_5, CV4_GV_6, CV_5_HDI, **IV1_BOP**

c. Dependent Variable: DV_PHR

Durbin-Watson value = 1.973.

Note. Adapted from SPSS output

6.2 For RQ2

With the open, axial, and selective-coding process with the use of 45 samples, the final step of developing a theory for BOP business development strategies to answer RQ2 is as follows.

1. An initial step of development strategies through improvements in public services, and ownership for developing agriculture and manufacturing towards the upgrade of the income stages.
2. Depending on the income stage, the development issues need to be prioritized for better business climate, especially for BOP business; food security, public services (education and medical health), infrastructure, peace-building, governance, social protection for better business climate with global partnerships, especially for rural development.
3. Developing the BOP business model for social value creation through marketing, technology, and smaller-scale operations, especially in food, energy, housing, water, ICT, and transportation.

7 Conclusion

7.1 Interpretations of study results and frameworks

As for the study results of RQ1, I rejected the null hypothesis that there was statistically significant contribution of the BOP business to the percent change of the R^2 variance in developing countries' poverty alleviation composite scores when controlling the other factors of education, governance, industrialization, labor market, infrastructure, and human development composite values. The data-analysis seems relevantly accurate, and I observed the impact of the BOP business cases on poverty issue, at least, through the multiple-regression analysis. Based on the result and interpretation, it would be further beneficial to see how the BOP business can work for poverty reduction from different approaches or methodologies so that we see the certain effect of the business for poverty reduction.

On the other hand, as for RQ2, it was justifiable that the framework of how to develop the strategy to promote the BOP business for poverty reduction in the developing world needs to be formulated. Conceptually, the essences of economic development and business management were integrated into one concept for realizing both the maximization of business profits and social transformation through poverty reduction in many parts of the world. Remarkably, this framework emphasizes the importance

of arranging the specific strategy for promoting the BOP business in accordance with the national development levels. In these ways, it would be worth developing the strategy on how to develop the BOP business for poverty reduction in confirmation with the certain impact of its opportunities predicting the poverty headcount ratio in RQ1.

Finally, as for the interpretation of the frameworks that I made, the first framework representing the relationship between poverty and the BOP business maturity can be justified, aside from the positive study result of RQ1 to reject the null hypothesis. I stressed that the BOP business can be promoted only if the economic development foundations are sufficiently arranged, including infrastructure, government ownership, basic public services, etc. In this way, the framework can be justifiable. Also, the other framework shown in Table 1 that demonstrates the integration of economic development and the BOP business maturity can be justified, primarily in visualizing the strategy to connect the development conditions with the BOP business development. Still, the compatibility of the BOP business development strategy needs to be further examined for advancing this study in another cases.

7.2 Limitations

Firstly, regarding the quantitative analysis for RQ1, poverty is employed as a study variable by introducing the data from the World Bank (2021). The poverty condition and status can be different country by country. Poverty is not merely measured by the income level, but also considered as the lack of opportunities in education, health, employment, or environment to lead their lives (OPHI, 2021). In this way, the historical approaches to poverty per country, region, or area were not addressed here.

Secondly, regarding the qualitative analysis for RQ2, a formulation of the framework relevant to the BOP business process for poverty reduction may depend on the document survey via coding process to gather the integral parts of the business flow. When it comes to the qualitative data-collection, majority of scholars prefer conducting individual or group interview. In that way, it might be beneficial for me to employ the interview for obtaining the original data to be used for the qualitative analysis.

Finally, in this study, I did not employ any specific case studies to be focused on. The research problem is how the BOP business can approach to poverty reduction. In this way, it would be more beneficial for me to pay more attention to how they approach to poverty reduction, the specific process of poverty reduction, and how the results can be seen more specifically. Thus, it would be necessary to consider embracing the methods in advancing the BOP business development study in the long run.

7.3 Recommendations

Three perspectives of research variables and methods, the employment of case study, and the connection of the BOP business with the international development were addressed. I underlined this study's potential as the cornerstone of the research on education and development, while it can further synergistically work in the case of employing the other method, especially the mixed method for gaining insight into more specific areas or objects to be investigated as a case study.

Also, employing case studies with the scale of organization level or country/region level were finally addressed for a recommendation. Then, as for the academic challenge to connect the business with international development, I raised the discussion of introducing the business management into the academic field of the international development, aiming to realize economic development, poverty reduction, good governance, etc. In line with the contribution to social transformation, I strongly recommended scholars in considering the potential in connecting the business management with the international development from various perspectives in the long run.

Admittedly, the BOP is not the mainstream in development policies in many parts of the world due to the common recognition of invisible investment. Nevertheless, the opportunity for the poor should not be ignored with the research's back-up on the BOP business and development through poverty reduction. In this way, it would be necessary for me to continuously work on this research issue to realize the social change in the world.

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