Understanding Base of the Pyramid Literature – A Thematic, Methodological and Paradigmatic Review

Research Paper

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ABSTRACT

Purpose

The purpose of this research paper is to stimulate a reflective introspection about the potential of social businesses in emerging markets, amongst the both academic research community and practitioners. This paper includes a comprehensive analysis of the diverse research literature pertaining to social businesses in the emerging markets at base of the pyramid (BoP). Since 2005, GDP growth rate has been on a lower side in the developed economies (1% - 3%) as compared to GDP growth rate in the developing economies (6% - 9%). A substantial section of the population in these developing economies belongs to the BoP segment. Hence, it has become highly significant for global business organizations to understand the BoP market and the underlying business strategies required to become successful in the developing economies. This has led to considerable number of BoP related research publications in academic journals on various perspectives like strategic management, entrepreneurship, economics and marketing etc. Considering the importance of BoP market for the business organizations and the emergence of BoP as an important research topic for the academia, there is a need to attempt a comprehensive assessment of the existing BoP literature with respect to the research methodologies and research paradigms which have been adopted by researchers in past and the underlying research themes that need further focus to expand the horizon of this promising business domain which has attracted.

Approach

This research paper undertakes the three-dimensional review of the BoP research literature using the thematic, methodological and paradigmatic lenses. The thematic review of the BoP literature has been undertaken to understand the different research themes and proposed integration / unification between them. The methodological review of the BoP literature has been undertaken by evaluating the selected research papers on the basis of the following parameters like research approach been used, research design been adopted, data collection approach and data analysis approach. The research paradigm review of the BoP literature has been conducted using Meredith et al. (1989) framework.

Findings

The predominant research themes evident from the research literature include (1) understanding the BoP context; (2) business models at the BoP; (3) technology and innovation; (4) and value co-creation by local engagement and embeddedness.
The methodological review brings forth the dominance of conceptual and qualitative orientation in the existing research literature related to the social business models at base of the pyramid.

The paradigmatic review also highlights the dominance of interpretive paradigm using conceptual modelling and case study approach as compared to logical positivist/empiricist paradigm. One of the key indicators for the same is the underlying complexity and heterogeneity of the BoP socio-economic segment due to its multi-dimensional nature. The BoP segment carries a different mindset and involves the application of a different set of rules as compared to the middle and upper segments. So, there is a need to undertake phenomenon driven research based upon analyzing and interpreting the data from multiple sources.

**Limitations**

The analysis and discussions are confined to academic research literature. There is an equally important thought process in consulting studies on business models at BoP, which is not a part of this literature review.

**Implications**

The analysis of existing research literature brings forth the dominance of interpretive research paradigm. The analysis also brings forth the difference in the research approach been used by research papers published by US versus UK journals.

**Contribution**

This paper is an original attempt to stimulate a reflective introspection in the research community, which is working in the emerging stream of BoP. The review of the research literature across thematic, methodological and paradigmatic dimensions has brought forward the key focus areas required in aiming for the creation of a BoP theoretical framework as well as the significance of interpretive paradigm to design theories and frameworks around multi-dimensional constructs like the base of the pyramid.

**Keywords**

*Base of the Pyramid, BoP, Social Business, Thematic Review, Methodological Review, Paradigmatic Review, BoP Literature review*
Understanding Base of the Pyramid Literature – A Thematic, Methodological And Paradigmatic Review

1. Introduction

Prahalad and Hammond (2002) have described Bottom of Pyramid (BoP) as both a challenge as well as an opportunity for organizations. This is an opportunity to solve the unique problems profitably and to develop breakthrough innovations for sustainability at BoP. This requires market based ecosystems and engagement of BoP segment across the value-chain.

The critical drivers, which are reshaping the competitive and economic landscape across the globe, involve rapid advancement in information and communication technologies, growth of e-commerce, GDP growth rate of developed versus developing economies, potential growth in emerging markets having untapped population at BoP, increasing number of virtual competitors, decreasing resource mobility barriers, decreasing product life cycles, increasing cost of R&D, increasing time and cost of new product development and emerging categories of new target segments (prosumers, online consumers, value for money consumers) (Hamel and Prahalad, 1989; Hitt et al., 1998; Ireland and Hitt, 1999; Markides, 1999; Hamel, 2000; Nidumolu et al., 2009).

These dynamic trends in competitive landscape call for measures, which lead to disruptive innovation of competitive logic regarding value proposition, value creation, value delivery, value appropriation and future viability (Markides, 1997; Markides, 1999; Hamel, 2000). One of the critical drivers reshaping the global competitive environment is the relative growth rate of developed and developing economies. The declining GDP growth rate and market saturation in developed economies is bringing about a paradigm shift in focus and attention

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1 As per Hammond et al. (2007), The Base of the Pyramid (also referred to as the Bottom of the Pyramid or Low Income Segment) refers to the estimated 4 billion people around the world who are poor by any measure and have limited or no access to essential products and services such as energy, clean water, and communications. Globally, people in this socioeconomic group earn US$1 to US$8 in purchasing power parity (PPP) per day. Yet these households often pay higher prices (poverty penalty) than wealthier consumers do for lower-quality goods and services because of uncompetitive markets. As per London (2008), BoP is defined as the socio-economic segment that primarily lives and transacts in the informal economy.

2 GDP is Gross Domestic Product.

3 R&D is Research and Development
towards the growing demands and potential business opportunities in developing economies. The predominant market in these developing economies is characterized as uncertain, informal, rural and heterogeneous having people lying in the BoP socio-economic segment. This has led to number of research papers published in strategic management and marketing literature on different themes related to BoP.

The understanding of research paradigms pertaining to a specific concept or context has been given a lot of significance in management research as an important state of enquiry. This helps in understanding the historical trends, current trends and future state of the concept under study. This acts as a rich source of information and guidance to future studies in the same or inter-related discipline. The same holds true for the social businesses aimed at BoP. Considering BoP market as the untapped business opportunity having underlying challenges and complexity for the social businesses aimed at the fulfilment of the BoP needs, it becomes important to evaluate, understand, integrate and bring forth the overall learning and guiding principles from the existing research literature. This will act as a catalyst and starting link for the future research articles in the context of BoP and social businesses. From this perspective, a methodological and research paradigm review has been undertaken in this study for the BoP literature.

There is a need to do the comprehensive assessment of the existing BoP literature with respect to the research methodologies and research paradigms being used. This research paper undertakes the three-dimensional review of the BoP literature using the thematic, methodological and paradigmatic lenses. There are four underlying objectives for the same. First, this study examines the BoP literature and attempts to identify the dominant research themes. Secondly, this study attempts the methodological review of the BoP literature on multiple parameters as empirical versus non-empirical, research design, data collection technique, data analysis technique etc. Thirdly, this study attempts the paradigmatic review of the BoP literature using Meredith et al. (1989) framework. Fourthly, this study highlights the research findings and areas of future attention.

2. Research Literature – Selection of Articles

Therefore, the objective of this research paper is to understand the same and to bring forth the findings of the same. The scope of this research paper includes 50 research papers selected from 28 academic journals. The detail of the selection methodology is mentioned below.
The scope of this study includes a collection of 50 research papers (Appendix 1), which have been identified from 27 academic journals by a two-step process as follows:

- The first step involved searching in the major research publication databases like EBSCO, ABI/INFORMS, JSTOR and Emerald. This helped to identify the academic journals and research papers on BoP.
- The second step involved analyzing the references of the research papers selected in step 1. This helped to undertake focussed search of the relevant research papers, mentioned in the references.

The keywords used for search were “base of the pyramid”, “bottom of the pyramid”, “BoP”, “social business”, “social entrepreneurship”. First, a search was made for the above keywords, which helped in identifying the initial list of 70 research papers. Second, depending upon the relevance of the abstract, this list was reduced to a final list of 50 research papers. Only, those research papers that were published in peer-review journals were considered as a part of this study. The research papers were then coded to facilitate the research analysis process. The research papers were subjected to in-depth review to understand the research questions, research design, data collection and data analysis, research themes, research findings and outcomes.

3. Thematic Review - Base of the Pyramid Literature

3.1 Underlying Definition, Challenges and Opportunities

The discussion on market size and classification of BoP consumers has been of prime importance in the BoP literature. According to Hammond et al. (2007), 4 billions consumers (> 65%) constituted the base of the economic pyramid. Referring to the classification of a BoP consumer, Landrum (2007) and Karnani (2007; 2011) have argued that the promised USD 4 trillion worth market does not simply exist and has some misconstrued assumptions, which need be understood and corrected by organizations entering the BoP. There is no universal agreement on what comprises the BoP? Does it comprise the population living at less than $2\textsuperscript{4} or does it comprise the population living at anywhere up to $8\textsuperscript{5} per day and so on? Are there multiple sub segments within BoP? Further emphasizing the argument, Karnani (2011) has mentioned, “BoP is a fuzzy phrase. The poor should be considered in terms of

\textsuperscript{4} In terms of USD per person per day (@ Year 2002 PPP)

\textsuperscript{5} In terms of USD per person per day (@ Year 2002 PPP)
absolute poor. What is unique about the BoP idea as Prahalad and Stuart Hart first talked about it is that you could make a profit from it, not do it as a charity. I think we should impose three strict conditions on BoP logic: That it's profitable. It's actually (serving) the poor. It's good for the poor. Now, you put these three conditions together and there are very few positive examples (of BoP enterprises)”. Despite the different perspectives on what constitute the BoP, the global organizations have realized that this was and is still to a large extent, an untapped market, which is not integrated with the global market economy. This market segment demands market-based business models that focus on engaging BoP not only as consumers but also as suppliers, employees, micro-entrepreneurs and micro-innovators. Also, there is a need to design and implement solutions that can make markets more efficient, competitive and inclusive, resulting in triple bottom line (socio-economic & environmental) benefits for the organizations. This market has its own unique set of underlying challenges, which require a differentiated mind-set and approach towards value proposition, value creation, value delivery and revenues generation. There is a need to understand that the criterion for the BoP differs by country. From business perspective, BoP should be looked upon as a heterogeneous segment, which can be further categorized into sub-segments like extreme poor (<$1 per person per day), $1-$2, $2 - $8 and so on. There is a need to look at an integrated view (Figure 1) of the BoP segment in terms of opportunity, need and challenges (market complexity).

![Figure 1: BoP Market–Challenge Or/And Opportunity](image-url)

The opportunity dimension represents the BoP socio-economic segment, which presents a huge untapped market potential of 3.7 billion consumers worth having an annual household income of USD 5 trillion (Hammond et al., 2007). The average daily income level of the BoP individuals lies between USD 1 to USD 8 (as per Year 2002 PPP $). The study by Hammond et al. (2007) quantifies the potential market opportunity as follows. Asia represents a BoP market potential of 2.86+ billion people having annual household income of USD 3.47 trillion (approx.). Eastern Europe represents a BoP market potential of 254+ million people having annual household income of USD 458 billion (approx.). Latin America represents a BoP market potential of 360+ million people having annual household income of USD 509 billion (approx.). Africa represents a BoP market potential of 486+ million people having annual household income of USD 429 billion (approx.).

The need dimension represents the key characteristics of the value offerings, which are required to build the market at the BoP. The BoP segment has to be looked upon from the market development perspective. This involves identifying the unmet basic need, understanding the price point (price minus rather than cost plus perspective), designing and offering the market based solution for the same, which is affordable, accessible, available and leads to formal market inclusion and awareness (Prahalad, 2004). Affordability involves understanding the price point of the target segment and work backward to identify the challenge cost after adjusting the margins. Accessibility and Availability refers to the design of delivery channels to enable the reach and availability to the target segment. Awareness involves providing necessary information and education to the BoP segment, which helps them in understanding the formal markets, taking a decision, which is beneficial to them.

The market complexity dimension represents the key challenges faced by the organizations entering the BoP (IFMR, 2011). The BoP customer profile poses challenge to the organizations in terms of making market decisions based upon the unpredictable market dynamics like income volatility, low savings due to lack of access to formal financial infrastructure, diversity in languages and literacy levels across regions, limited mobility and travel infrastructure and purchase decisions driven by social beliefs and frugal mindset. The BoP environment poses challenges in terms low population density across geographies, lack of government interventions and policy support and scarcity of data sets related to BoP population characteristics. The BoP infrastructure poses challenges in terms of lack of basic infrastructure like electricity, water, technology, roads etc as well as lack of complementary products and services, which can help to expand the market. This leads to barriers for reach and accessibility. The availability of skilled resources like doctors, paramedical staff,
engineers etc is another challenge in terms of resources, which act as a major barrier in launch of products/services which require skilled manpower.

3.2 Research Themes and Focus Areas

The BoP phenomenon is characterized by multi-dimensional themes like innovation, local engagement, local embeddedness, field experimentation and learning etc. How these dimensions lead to value proposition, value creation, and value delivery is something, which has been the main focus of research literature focusing on the base of the pyramid. In the context of BoP, **Value proposition** refers to the offerings made for engaging the BoP segment. This not only includes BoP as consumers but also as employees, distributors, and suppliers (Viswanathan et al., 2007; Karnani, 2007). **Local capacity building** refers to the building of necessary skills and ecosystem for engagement of local community in BoP business operations. Chaskis et al. (2001) defined local capacity at the community level as “interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve and maintain the well-being of that community”. Local capacity building thus refers to a community’s increased collective ability to solve problems and identify opportunities. **Local embeddedness** refers to the engagement of an organization operating at BoP with the local community not only for business transactions but also as a long-term relationship. Miller (1996) defined embeddedness as “the extent to which a company’s strategy reflects or is influenced by its social and institutional connections”. Hence, it could be understood that local embeddedness of business develops a local presence within people’s everyday life. One of the most effective approaches for local embeddedness is to work with non-traditional partners for value creation and delivery (Hart & London, 2005). **Localized learning** refers to the incorporation of bottom-up learning mechanisms by the organizations operating at BoP. There is a need to systematically identify, explore and integrate the views of the stakeholders on the fringe and to co-discover and co-create new business opportunities and business models with marginalized groups and communities (Hart & Sharma, 2004; Hart & London, 2005; Simanis & Hart, 2009).

According to Hart and Milstein (2003), sustainable development requires multi-dimensional performance to manage multi-faceted challenges across social, economic and environmental aspects. This requires strategic business models to focus on sustainability drivers like clean technology, product stewardship, pollution prevention and sustainability vision. MNCs that
are facing tough situation in saturated markets in developed countries could shift their focus to emerging economies. However, they need to develop a global capability in social embeddedness for targeting the low income segments in emerging markets (London and Hart, 2004). This includes developing relationships with non-traditional partners, co-inventing custom solutions and building local capacity.

It has also been highlighted in literature that social entrepreneurship has the potential to create new business models for the provision of products and services that cater directly to basic human needs that remain unsatisfied by current economic or social institutions (Seelos & Mair, 2005). **Social entrepreneurship** is defined as a process that catalyzes social change and addresses important social needs in a way that is not dominated by direct financial benefits for the entrepreneurs. This requires embeddedness as a critical link between different theoretical perspectives as structuration theory, institutional entrepreneurship theory, social capital theory and social movement theory (Mair & Marti, 2006).

Another area that has attracted attention of researchers is the role of innovation in BoP markets. Andersen and Markides (2007) have highlighted the importance of strategic innovation along with affordability, acceptability, availability and awareness as key dimensions for serving the base of the pyramid profitably. Simanis and Hart (2009) have argued that organizations need to adopt embedded innovation paradigm (EIP) as compared to structured innovation paradigm (SIP) at BoP. While SIP is transaction based having focus on fulfilling customer need by delivering product/service that is faster and cheaper than the ones by the competitors, EIP is relationship based having transformational stakeholder commitment. Moreover, affordability and sustainability are replacing premium pricing and abundance as innovation’s drivers (Prahalad & Mashelkar, 2010). To tackle this challenge and opportunity, companies are adopting inclusive growth and innovation via disrupting business models, modifying organizational capabilities and creating or sourcing new capabilities. This requires a clear vision, setting stretch targets, meeting challenge cost derived from price minus philosophy, exercising entrepreneurial creativity within constraints and focusing on people, not just profits or shareholder wealth.

Lately researchers have identified that it is necessary to involve local resources to ensure that BoP consumers are addressed in a meaningful manner. According to Dahan et al. (2010), MNEs\(^6\) should collaborate with NGOs\(^7\) for value creation and delivery, while entering

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\(^6\) Multi National Enterprises

\(^7\) Non Government Organizations
developing countries. This partnership enables MNEs to gain market expertise, legitimacy with customers, civil society organizations and governments, and access to local expertise and sourcing and distribution systems.

It has been repeatedly emphasized that organizations having intention to enter the BoP market should focus, not only on the economic value but also on the social value. Porter and Kramer (2011) have argued that when organizations focus on shared value, which involves socio-economic value creation, it leads to an inherent objective of creating value for the society by addressing its needs and challenges. This requires reconfiguration of products and markets, redefining productivity in the value chain and enabling local cluster development. Further, Yunus et al. (2010) have highlighted the role of social business models at BoP, the underlying components, core objectives, comparison with CSR and profit maximizing businesses and resulting impact on the involved organizations as well as target segments and other stakeholders in the value-chain. This paper highlights five key focus areas for operating at the BoP; which include challenging conventional thinking, finding complementary partners and undertaking continuous experimentation, recruiting social-profit-oriented shareholders, and specifying social profit objectives clearly and early. Thus, business models need to be tweaked to incorporate the social aspect and not only focus on economic aspects.

3.3 **Thematic Review - Outcomes**

The predominant research themes (Table 1) evident from the research literature include (1) understanding the BoP context; (2) business models at the BoP; (3) technology and innovation; (4) and value co-creation by local engagement and embeddedness. The second set of research themes, which are gaining attention, include (1) social entrepreneurship; (2) role of CSR, philanthropy and shared value in gaining competitive advantage; (3) and sustainable value creation including social and environmental benefits. The third set of nascent research themes, which will gain lot of attention in the future include (1) design of metrics for socio-economic outcomes; (2) social investors based funding; (3) micro-franchising; (4) and scalability strategy. The divergence of research themes across the BoP research literature points towards the horizontal expansion of the BoP theory and framework. The future research is expected to go deep across these research themes as well as is expected to focus on integrating these research themes towards a unified theory of BoP business models.

The majority of these themes have been derived by undertaking phenomenon driven research. This involved applying interpretive paradigm on multiple sources of information available as
conceputal data and published case studies from secondary sources as well as field interviews based case studies.

<table>
<thead>
<tr>
<th>Table 1: Research Theme versus Research Methodology</th>
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<tbody>
<tr>
<td>Research Theme</td>
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<tr>
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<tr>
<td>BoP Market - Metrics</td>
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<td>BoP Enterprise - Funding</td>
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<td>BoP vs ToP - Business &amp; Social Networks</td>
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<td>Scalability</td>
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<tr>
<td>Definition - Social Entrepreneurship</td>
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<td>Value Creation - Environment &amp; Social Aspects</td>
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<tr>
<td>Value Delivery - Micro-Franchising</td>
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<td>Total</td>
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Note: Figure in the parenthesis (A-n) represents ‘n’ research article in Appendix Section of this research paper

4. Methodological Review - Base of the Pyramid Literature

The methodological review involves the analysis of the numbers, types and location of journals, which contain selected research papers. The 50 research papers, which are selected for this study, were published in 27 peer-reviewed research journals during the period 1997 - 2011 (Table 2). The majority of research papers (27) were published in 14 US based journals and the rest (20) were published in 11 UK based journals. The remaining 3 research papers got published in 2 journals one each from India and Netherlands. There are no BoP related studies found in journals from other geographies. This reflects the dominance of BoP related research publications in US and UK based journals, which sounds interesting and surprising, as most of the research related to BoP domain pertains to developing economies.

The research papers have been analyzed on various criteria as empirical versus non-empirical, qualitative versus quantitative, research design, data collection techniques and data analysis techniques. This has been followed by focusing on understanding the trends of
research paradigms with the help of Meredith et al. (1989) framework, which is detailed in Section 5.

4.1 Methodological Review - Observations

4.1.1 Empirical versus Non-Empirical Studies

The number of research papers increased drastically from 1997 to 2011. Only 4% (2 research papers) of the selected ones got published since 2000, which was followed by 24% (12 research papers) published during 2001 – 2005 and 72% (36 research papers) were published during 2006-2011. This implies the increasing attention and focus that is being given to the BoP concept by academicians since 2006. The research approach has shown an interesting trend and disposition towards non-empirical based research. The studies predominantly were non-empirical in nature as they accounted for 66% (33 research papers, while the empirical studies accounted for remaining 34% (17 research papers). The findings would gain more significance, if they are driven by empirical studies and it requires attention in the future studies. Another interesting aspect to be noticed is that while, the majority of the research
papers published in US based journals were non-empirical, the majority of the research papers published in UK based journals were empirical in nature (Table 3).

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>UK</th>
<th>Others</th>
<th>US</th>
<th>UK</th>
<th>Others</th>
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<tr>
<td>Total</td>
<td>50</td>
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<td>14</td>
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4.1.2 Qualitative versus Quantitative Data
As per the analysis of 50 research papers, only 17 studies (34%) were empirical and they all used qualitative data (Table 2). None of the research paper used quantitative data. This indicates the predominance of conceptual studies and lack of focus on empirical studies. Another interesting aspect is that the majority of the research papers published in US based journals were conceptual in nature (25 out of 27), while the majority of the research papers published in UK based journals used qualitative data (14 out of 20). This reflects the lack of focus on investigation of the themes by using quantitative data, which is a big research gap to be addressed by future studies. This also explains the reason behind the divergence and multidirectional nature of BoP research papers, which has resulted in lack of integrated BoP theoretical framework. The majority of the qualitative studies (14 out of 17) got published after year 2005. This indicates that the research focus is showing a positive shift from just arguing from a conceptual manner to an interpretive research with the help of qualitative data. There is still a concern regarding lack of quantitative data oriented studies, which need deliberation by the researchers.
4.1.3 Hypothesis and Propositions
All the 17 empirical studies were qualitative in nature and none of these studies used hypothesis. There were only 2 studies among those 17 studies, which stated propositions as the outcome of the analysis.

4.1.4 Research Design
The case study research was used the dominant research design among the 17 empirical studies. This was followed by action research (3 research papers) and ethnographic research (2 research papers). Only 1 study involved in-depth interviews as a research design (Table 4). There was no study, which used survey based or experimental based research design.

<table>
<thead>
<tr>
<th>Research Design</th>
<th>No of Papers</th>
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<tbody>
<tr>
<td>Archival Study</td>
<td>0</td>
</tr>
<tr>
<td>In-depth Interviews</td>
<td>1</td>
</tr>
<tr>
<td>Case Study</td>
<td>11</td>
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<tr>
<td>Survey</td>
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<tr>
<td>Experimental Research</td>
<td>0</td>
</tr>
<tr>
<td>Ethnographic Research</td>
<td>2</td>
</tr>
<tr>
<td>Action Research</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

The main rationale given in most of the research papers for undertaking case study based, action based and ethnographic based research was the complexity of the phenomenon. This implies that low-income markets comprise multiple stakeholders having multiple interactions without any clear boundaries to the context (Sanchez et al, 2010).

4.1.5 Data Collection
Due to the qualitative nature of the empirical studies, data collection techniques included multiple sources of information like published information from different online and company sources, published case studies, primary (field) case studies, in-depth interviews, observation, participation and focus group discussions (Table 5). No research study used survey questionnaire for data collection. The multiple sources of data were being used to ensure triangulation and to avoid common method bias. The interesting aspect is that realizing the complexity of the BoP context, researchers attempted to undertake action research and ethnographic research using observation, participation and focus group techniques for data collection. In a complex phenomenon like BoP, apart from primary case studies, these techniques were found to be very useful for understanding the causal dynamics.
of particular settings assuming that causation is neither linear nor singular (Anderson et al., 2007).

4.1.6 Data Analysis
Due to the qualitative nature of the empirical studies, content analysis was the dominant data analysis technique adopted by researchers (Table 6).

<table>
<thead>
<tr>
<th>Research Design</th>
<th>No of Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Analysis</td>
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<td>SEM</td>
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<td>Factor Analysis</td>
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<tr>
<td>Descriptive Statistics</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

4.2 Methodological Review - Outcomes
The methodological review of the 50 research papers highlights the orientation towards conceptual research approach as a basis for understanding the BoP phenomenon. The empirical approach is being used by one-third of the selected articles and that too using case study based research design.
This brings forth a clear implication towards the dynamic nature and underlying complexity of the BoP phenomenon, which can’t be captured by undertaking surveys and by applying quantitative techniques. There is a need for theoretical sampling of the organizations
operating at the BoP to derive contrast as well as correlation between the market behaviour of the different organizations operating at the BoP.

5. Paradigmatic Review - Base of the Pyramid Literature

This paper applied the Meredith et al. (1989) research paradigm framework to undertake the paradigmatic review of the BoP literature.

5.1 Paradigmatic Review – Meredith et al. (1989) Framework

Meredith et al. (1989) provided a detailed framework to analyze the research paradigms (Figure 2). This framework has been used by academic researchers in various disciplines like operations management (Sachan & Datta, 2005), information systems (Yadav & Gupta, 2008), corporate social responsibility (Taneja et al., 2011). This framework was developed based upon two key dimensions of research methodologies:

- Vertical Axis comprising the rational versus existential structure of the research process (relating to the epistemological structure)
- Horizontal Axis comprising the natural versus artificial basis for the information used in the research.

Across the vertical axis, the rational end conforms to the traditional deductive approach, which measures the truth using formal structure and logic whereas the existential end conforms to the inductive approach, which involves understanding the interactions between human beings and surrounding environment. The four generic perspectives along the rational/existential dimension involve axiomatic (which assumes that a priori knowledge exists and gets tested using theorems and formal structure), logical positivist/empiricist (which assumes that phenomenon under study is isolated from the underlying context like experiments, prototyping and survey research), interpretive (which assumes that context of the phenomenon under study is a part of the object of study like case study research, action research etc) and critical theory (synthesizes the positivist and interpretive perspectives).

Across the horizontal axis, natural end focuses on empiricism (deriving information from concrete, objective data) whereas artificial end focuses on subjectivism (deriving information from interpretation and artificial reconstruction of reality). The three generic perspectives along the natural/artificial dimension involve direct observation of object reality (which includes field experiments, field studies, case studies and action research), people’s perception of object reality (which includes structured interview, survey research, Delphi,
historical analysis, expert panels etc) and artificial reconstruction of object reality (which includes modelling, prototyping, simulation, lab experiments, hermeneutics etc).

5.2 Paradigmatic Review – Observations
The paradigmatic review reflects the orientation towards the interpretive approach in BoP related academic research literature (Figure 3). The majority of the 50 selected research papers applied the interpretive paradigm. The kind of information used by the interpretive paradigm involved conceptual modelling, case based studies, ethnographic studies and action oriented studies. This included 33 studies using conceptual modelling approach, 11 studies using case study approach, 3 studies using action research, 2 studies using ethnographic research and 1 study using in-depth interviews.
5.3 Paradigmatic Review – Outcome

The orientation towards the interpretive paradigm implies that the underlying context of the BoP phenomenon requires inductive theory building approach aimed at building theory from data collected via a mix of field based case study research as well as published sources. The rationale attributed to the adoption of interpretive paradigm in research papers include complexity of low-income markets characterised by complex social phenomenon, engagement of multiple stakeholders, diffusion of boundary between organizations operating at BoP and external environment, scarcity of data sets etc. The interesting aspect here is that action research and ethnographic research were also attempted using participatory and direct observation techniques in 5 of the empirical research papers to understand the complex causal dynamics of interface between BoP business ventures, innovation and BoP consumers/producers. This clearly indicates the orientation towards interpretive paradigm for the future course of research to understand the BoP phenomenon.
6. Discussions and Results

This study contributes to the BoP literature in three major aspects, as highlighted in research objectives at the beginning of this study. First, this study examines the BoP literature and highlights the dominant research themes. Secondly, this study highlights the dominance of conceptual (non-empirical) and case based qualitative (empirical) research methodologies in BoP literature. Thirdly, this study highlights the dominance of interpretive research paradigm in BoP literature.

The analysis of the BoP research literature brings forth the following key learnings:

• **Lack of Convergence towards theory building.** The BoP research has grown horizontally bringing new dimensions and themes under perspective. The rationale is that BoP is a complex phenomenon characterised by multiple stakeholders, heterogeneous environment (informal economy, information asymmetry, weak legal institution & infrastructure, resource scarcity, poverty penalty etc) and diffusion of boundary between organization and external environment. The lack of vertical focus on identifying the core themes and creating a framework around the same has led to the current heterogeneous state of the BoP phenomenon. There is a need for the future researchers to focus on core building blocks at the BoP and to drive the BoP phenomenon towards creating a conceptual framework, which will finally lead to a well-defined theoretical framework.

• **Understanding the BoP business models in emerging economies.** The majority of the BoP research papers have focused on Africa and South America as the BoP context. This does not nullify the importance and significance of these studies. However, there is a need to complement these research papers with the understanding of BoP business models in emerging Asian economies like India and China. There are two main reasons for the same. First, these two countries together, account for the majority of the global population in the BoP category (Hammond et al., 2007). Secondly, these two countries are considered as the future economic growth engine of the world having a consistent GDP growth rate of 6% - 10% (UNCTAD, 2011).

• **Engaging the BoP across the value-chain.** The majority of the research papers have focused on BoP as a consumer segment. At the same time, there are few researchers, who have stressed on expanding the role of the BoP segment across the value-chain by looking at them not only as consumers but also as employees, producer, micro-entrepreneurs, micro-suppliers, grass-root innovators and value co-creators. There have been quite a few research papers, which have focused on these alternate modes of engaging the BoP
segment. London et al. (2010) pointed out the same by emphasizing the fact that while the BoP has unmet needs as consumers and producers, the focus has been on the former.

- **Research Themes requiring further attention.** The majority of the BoP research papers have focused on different themes pertaining to value creation, value proposition and value delivery. There has been a scattered focus on other key themes pertaining to leadership and organization structure; BoP business models; scalability; metrics and feedback loop; performance benchmarking and social audits etc. These themes require deep-dive attention to link them with the core of the BoP business model.

- **Need for Integration.** The majority of the research papers have focused on divergent themes applicable at the BoP. This has its own importance. There is a need for integrating the divergent themes applicable at the BoP to create a BoP theoretical framework.

7. **Conclusion**

The main purpose of this research paper was to study the BoP research literature using the thematic, methodological and paradigmatic lenses. This paper is an original attempt to stimulate a reflective introspection in the research community, which is working in the emerging stream of BoP. The review of the research literature across thematic, methodological and paradigmatic dimensions has brought forward the key focus areas required in aiming for the creation of a BoP theoretical framework as well as the significance of interpretive paradigm to design theories and frameworks around multi-dimensional constructs like the base of the pyramid.
8. References


9. **Appendix 1**

**Note:** Research papers below referred in Table 1 as (A-n), where n = 1 to 50


