

# Assessing the attractiveness & Feasibility of doing business in the BoP Market – A Mixed Method Approach using ABCD Analysis Technique

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### ABSTRACT

**Purpose:** This paper aims at a quantitative analysis of the ABCD framework of analysis regarding the Base of the Pyramid market - its attractiveness, serviceability, profitability, and sustainable business generation at the BoP from the stakeholders' perspectives.

**Design:** The study follows a systematic literature review of ABCD analysis techniques and BoP to identify factors and elemental analysis under the ABCD framework. For the quantitative analysis, the focus group method is adopted by assigning the weights and the ratings to the constructs of the critical constituent elements.

**Findings:** The ABCD analysis framework is a tool of analysis that is conveniently designed to identify the various key attributes, and to analyze the advantages, benefits, constraints, and disadvantages of the critical constituent elements of any business, concepts, systems, strategies, and business domains. In this study on the attractiveness and feasibility of the Bottom of the Pyramid market ABCD quantitative analysis was found appropriate and very useful to quantitatively assess the key attributes, critical elements, and their summative scores to develop a feasible business model to tap the BoP segment successfully.

**Originality value:** This paper extensively studies the ABCD analysis framework and deploys the framework to study the BoP segment. Though several ABCD analyses are published related to other domains of business, this paper opens the door to new research in the area of assessment of the attractiveness and feasibility of the BoP business in India by finding the critical constituent elements and underlining its importance in doing sustainable and scalable business in the BoP segment.

**Paper Type:** Empirical Paper.

**Keywords:** ABCD analysis, Quantitative Analysis, BoP Market.

### 1. INTRODUCTION :

The phrase "bottom of the pyramid" (BOP), sometimes known as "base of the pyramid," is used in economics to describe the two-thirds of the economic human pyramid that are the lowest, comprising more than four billion people who live in extreme poverty. It is known that the bottom of the pyramid is the largest but poorest socio-economic group in the world. The current usage of the term 'bottom of the pyramid' refers to the four billion people living on less than \$ 2 per day, the definition was proposed in 1998 by C. K. Prahalad and Stuart L. Hart. This segment has drawn a lot of attention from companies globally, BOP today has emerged also as a term for a market-based approach to economic growth that aims to both reduce pervasive poverty and boost business growth and profits for multinational firms (MNCs). The wealth and revenue generation capabilities at the base of the pyramid are immense as elicited from various studies in this area over the last two decades. This population of four billion is expected to grow to six billion in the coming 10 years. As developed world economies are getting saturated and a lot of multinational companies have turned towards emerging economies to tap deeper markets for growth. The business models adopted by some of these multinationals are unique and have given immense revenue to the companies. Ted London, at the University of Michigan, focuses on the poverty alleviation implications of the base of the pyramid ventures. His focus has been on the poverty alleviation perspective of BoP approaches as was initially proposed by Prahalad and Hart [1-2]. A more recent focus has also been on the impact successful BOP approaches have on sustainable

development. At the core of its articulation, the BOP perspective relies on the hypothesis of mutual value creation, the more value created for the communities and consumers living in this segment, the higher the value attained by the venture [3]. These ventures are expected to generate acceptable social and economic returns to the organization operating in these segments and to the communities it is serving.

The ABCD analysis framework is a business model evaluation tool that takes into account all parameters of a business. This technique evaluates a business model, strategy, or operational strategy from the standpoint of the advantages, benefits, constraints, and disadvantages arising out of it. Further, it streamlines the data to identify the critical constituent elements in each determinant factor to narrow critical elements that need to be looked at to overcome the constraints and focus on the advantages to give the benefits.

## **2. BACKGROUND :**

Business models are defined as a set of unique process or activity which results in sustainable profit through desired revenue and customer value. It spells out the strategy of the organization for business growth and development. Thus a business model in management is a simplified representation of an operation or a process in which only the most important aspects of the activity under discussion are Thus a business model in management is a simplified representation of an operation or a process in which only the most important aspects of the activity under discussion are gauged and the model is developed for further usage.

A new analysis technique namely ABCD analyzing framework adopted to study a business model, business strategy, concept, idea, or a business system. ABCD is an acronym that stands for Advantages, Benefits, Constraints, and Disadvantages. The application of ABCD analysis results in obtaining an organized set of business constructs called advantages, benefits, constraints, and disadvantages in a systematic matrix [4-5]. This displays the various issues that can be identified for models/concepts/systems based on a generalized framework and then how to derive a specific framework for either a business model or a concept or a system specifically. A general guideline is given on how to identify various factors affecting these determinant issues based on the four constructs of advantages, benefits, constraints, and disadvantages [6-11].

Aithal et. al. (2015) developed ABCD analyzing framework to analyze any business model/concept and to study its effectiveness in providing value to its stakeholders and sustainable profit through expected revenue generation. This is in line with what the BOP market strategy also asks multinationals to do as per mentioned in the works of Prahalad, Hart and others. The application of this ABCD analysis technique results in an organized list of a business advantages, benefits, constraints, and disadvantages in a systematic matrix. The entire framework is divided into various issues/areas of focus and various business deployment factors affecting the business/concept can be identified and analyzed under each issue by identifying the suitable critical effective element [8, 9]. This analyzing technique being simple gives guidelines to identify and analyze the effectiveness of any business model or strategy and new concepts developed.

ABCD analysis framework is also used for the analysis of the Black Ocean strategy concept. The advantages, benefits, constraints, and disadvantages of the black ocean strategy on organizational issues, administrative issues, employee issues, business issues, external environmental issues, and operational issues for an organization have been identified and analyzed by studying various affecting factors and their constituent critical elements [10-13].

Multinationals and Indian companies would need to adapt business models to suit the fast-changing economy. If they aim at volumes then they would require developing new products and services with features appealing to the emerging market consumers - high functionality on features and stripping away features that add only cost without any value addition to the end consumer [6-7]. These products and services will then need to be supported by distribution logistics and service networks across the country with low infrastructure. Therein, distribution costs will spiral and put further pressure on thin margins.

## **3. OBJECTIVES :**

The present study is to analyze the concept of whether it is possible to generate revenue profitably by selling in BOP segments of emerging markets and its effectiveness in adding value to companies and

generating revenues by using the ABCD analyzing framework. This includes:

- (1) Finding various determinant issues related to the general business strategy to operate in BOP markets.
- (2) Listing affecting factors under constructs - advantages, benefits, constraints, and disadvantages for identified key attributes.
- (3) Identifying the critical constituent elements for each construct using its elemental analysis technique.
- (4) Finally, discuss and suggest how the ABCD framework is an optimum methodology in analyzing the business opportunity for a company in BOP segments of emerging markets and its effectiveness in adding values and generating revenues.

#### 4. REVIEW OF RELATED WORKS :

A review of the literature is an important part of the research process. It is a review of relevant literature conducted to develop a better understanding of what is known about a specific case, phenomenon, or issue and to identify knowledge gaps. Another reason for conducting a literature review is to assist the researcher in understanding how well the results of the study fit into the existing knowledge. As a result, this study reviewed various articles related to the study. This section is divided into four sections: (1) Review of literature on the BoP market, (2) Review of related articles on ABCD Listing, (3) Review of related articles on ABCD analysis depicting influencing factors and critical constituent elements, and (4) Review of related articles on Quantitative ABCD analysis with construct weightage.

##### 4.1: Review of literature on the BoP market:

Since this study is primarily concerned with the BoP Market, referring to pertinent previous studies is essential. Few of the scholarly publications on management practices, case studies on BoP markets, BoP marketing, growth, corporate imperialism etc. have been discussed below in table 1.

**Table 1:** Selected papers that discussed BoP Market

S. No.	Area/Focus	Purpose/Outcome	Reference
1	Indigenous Management Practices	Through networks, value propositions, effective word-of-mouth marketing, adaptability, critical need identification, localized productions or sourcing, proximity, and flexible terms of purchase, street vendors manage the competition. It would be possible for huge firms and big wholesalers to try and get into these markets if they had a thorough understanding of the rural and semi-urban areas as well as some of the subsistence markets in cities.	Keerthan Raj, (2017)[6]
2	Study on Hindustan Unilever Limited.	The key to success in an extremely diverse market like India would be to partner locally, connect with the average consumer, and localize both the goods and the sales strategies. The bop sector won't be open to trying out innovative goods and services until they see there is a sustainable value in them.	Keerthan, R. & Aithal, P. S. (2017) [7]
3	Creating mutual value	Eleven agricultural initiatives were examined in-depth to gain insight into the approaches they take to deal with obstacles and improve value creation and capture by BoP producers. According to the results, removing obstacles benefits not just	London, T., Anupindi, R., & Sheth, S. (2010) [14]

		regional producers but also the businesses involved.	
4	Corporate imperialism.	Multinational corporations will increasingly need to change their resource bases, cost structures, product development procedures, and assumptions about the cultural diversity of their senior management to compete successfully in the major emerging markets. To be globally competitive in the post-imperial era, they will need to adopt new business strategies and create a new attitude.	Prahalad, C. K., & Lieberthal, K. (1998) [2]
5	BoP Market to Tap	In the BoP context, business owners must consider how to create markets and how to do it in a setting that presents special difficulties.	Simanis, E. (2011) [3]
6	BOP marketing	Due to its wealth density, closeness, homogeneity, and modernity, the urban BOP market offers large businesses greater profitability than the rural BOP. Multilevel channels and inclusive pricing, as opposed to the BOP marketing strategies of rock low prices, novel items, and sachets, resulted in a substantial increase in BOP sales for the reputable middle-class.	Ireland, J. (2008) [15]
7	Market Growth BOP Markets.	The study's goal was to create a methodology that guides the creation of marketing plans for BOP segment market expansion. To create expanding markets, several tactics outside the purview of marketing strategy are required	Nagy, M., Bennett, D., & Graham, C. (2019) [16]
8	Branding on Base of the Pyramid Markets	If sustainability and loyalty are to be built, branding in BOP segments needs to involve consumers from the segment from the product inception stage to the end delivery and after-sales stages. This cannot be achieved by simply extending products and services marketed in other markets using creative local media and word of mouth.	Raj, Keerthan and Aithal, P. S., (2018) [17]
9	Generating Wealth at BoP	To advance business strategies and adapt successful models to operate in BOP marketplaces, it will be highly helpful to use the amount of information that has been categorized under determinants and impacting variables. The most important success component will be made feasible by turning the negative effects of the restrictions into positive possibilities that will aid the businesses' expansion, growth, and profitability.	Raj, Keerthan and Aithal, P. S., (2018) [18][19]
10	Digitization of India	The socioeconomic lives of those at the base of the pyramid have already been significantly impacted by India's digital endeavors, and this impact will only grow in the coming years.	Raj, K., & Aithal, P. S. (2018) [20]

11	Big Data Effect On Base Of The Pyramid	The beginning point for obtaining in-depth information on the mostly ignored BOP segment, even if they represent an attempt to comprehend and analyze the aspects of big data from the perspective of the base of the pyramid marketplaces. The BOP market processes are greatly strengthened by big data.	Raj, K., & Aithal, P. S. (2018) [21][22]
12	Cockroach Theory	A wide range of different business models, business strategies, and learnings have all been incorporated into the BOP opportunity area to create crucial success elements that have fuelled development and sustainability. Different opinions on what constitutes the essential elements for sustaining and growing may emerge throughout time as a result of newer techniques, successes, and failures. It is not necessary to locate riches at the base of the pyramid; international corporations and even domestic companies can successfully exploit this mostly untapped market to create wealth and design a strategy geared toward everyone's socioeconomic growth.	Raj, K., & Aithal, P. S. (2018) [23][24][25]
13	Sustainable Development in India 2.0	This conceptual paper examines India's steady growth during the India 2.0 era (1992 to the present), which was further fueled by the Modi government's numerous initiatives. It also considers ways to achieve sustained development from the BOP's point of view, with a particular emphasis on economic development, social development, environmental protection, and industry development.	Raj, K., & Aithal, P. S. (2018) [26]
14	Impact of COVID-19 on the Bottom of the Pyramid	To comprehend the intensity and effects of the epidemic and its accompanying limitations and governmental actions on the population, the researchers used a mixed methodology to investigate a sample of this population at the base of the pyramid.	Raj, K., & Aithal, P. S. (2020) [27]

#### 4.2 ABCD Analysis Framework:

Aithal, P. S. et al. (2015) [4] proposed the ABCD analysis framework to provide a simple and organized method for identifying a variety of problems that are harming a system and opening up opportunities for solutions. The review of the ABCD analysis is used to determine the topic, focus, and outcome of the research article, as well as the author's references. Because it considers other strategic methods of analysis including "SWOC, EFE & IFE Matrices, BCG matrix, Competitive Profile Matrix (CPM) analysis, PESTLE Analysis and Porter's Five Forces Model" [9-10][28], many research-based publications have been produced based on this analysis framework. As far as ABCD analysis is concerned, three different applications of the ABCD analysis framework are found in the literature: (1) ABCD listing, (2) ABCD analysis with affecting factors and critical constituent elements, and (3) quantitative ABCD analysis with construct weighting. According to current scholarly research methodologies, ABCD analysis is suggestible for industry analysis, company analysis, product analysis, service analysis, patent analysis, etc. A system of producers or businesses working together with the common objective of producing a certain range of goods or services is

known as an industry. Industry analysis can also be done using the ABCD paradigm [29]. The numerous business difficulties that affect a firm or group of companies can be analysed utilizing internal and external factors that influence the managers' choices regarding the issues. The ABCD listing was used in a prior study to analyse a company's strengths, weaknesses, opportunities, and restraints [30–31]. This framework employs traits or elements to analyse data using structures or parameters [32]. The ABCD framework can be used for patent analysis in addition to studying companies, industries, and several other concepts and phenomena [33]. The researcher has chosen to use ABCD analysis to assess the feasibility of doing business in the BoP sector and has used this technique in a quantitative format to evaluate its efficacy considering the technique's varied applications. The review of literature on ABCD analysis is further categorized as (a) Literature review on ABCD listing, (b) Literature review on ABCD analysis depicting influencing factors and critical constituent elements, and, (c) Literature review on Quantitative ABCD analysis with construct weightage.

#### 4.2.1 Literature review on ABCD listing:

Using the framework, one might list important advantages, benefits, restrictions, and downsides of each discovered determining issue after doing the qualitative study. Additionally, it introduces the idea of ABCD listing, which is a necessary step before performing quantitative ABCD analysis [34][9]. A qualitative approach can be used to compile a list of significant benefits, limitations, and drawbacks for each identified determining issue after a large number of issues have been chosen for investigation. This will provide an of how ABCD analysis, also known as ABCD listing, works. Table 2 displays a few academic works that have listed advantages, benefits, constraints, and disadvantages from the general or author's point of view:

**Table 2:** Selected papers that used ABCD listing

S. No.	Area/Focus	Purpose/Outcome	Reference
1	Online Campus Placement Model	This study identified the online campus placement model's practical viability, utility, resourcefulness, and universal applicability to recruiters, pupils, parents, society, and institutions.	Varun Shenoy, & Aithal P. S., (2016) [34]
2	Choice-Based Credit System	The traditional classroom-based education model and the ubiquitous online education model supported by technology both aim to redefine the curriculum in line with the liberalization and globalization of education. Students are given easy access through CBCS to a variety of educational institutions located all over the world, as well as the option to transfer their earned credits.	Aithal, P. S., & Kumar, P. M. (2016) [35]
3	Private universities in India.	Private universities' advantages, benefits, constraints, and disadvantages for many stakeholders, including students, faculty, parents, businesses, and society, are explored.	Aithal, P. S., & Kumar, P. M. (2016) [36]
4	Online Education	Online education is one of the potential developments in the next generation of educational systems. The study highlighted the role of online learning in higher education as the future generation of learning and its effects on the advancement of science and society. There is a discussion of the various online education models and their	Aithal, P. S., & Aithal, S. (2016). [37]

		significance.	
5	On-line Office Administration	A group of online office managers can oversee and manage office operations from their homes, eliminating the need for physical locations for online global education providers and universities. It has been discovered that such a model lowers costs for employers and service providers in terms of office space and maintenance as well as for employees in terms of travel, better home-cooked food, etc.	Reshma, P. S., Acharya, S., & Aithal, P. S. (2015). [38]
6	International Business and its Environment.	To analyze international strategic plans and environmental analysis frameworks, the study employed the ABCD listing approach to determine the advantages, benefits, restrictions, and downsides of various frameworks	Aithal P. S. (2017). [39]
7	ABC Model of Annual Research Productivity	This study used the ABCD analysis method on the ABC model of higher education institutions' annual research productivity.	Aithal, P. S., Shailashree, V. T. & Suresh Kumar, P. M., (2016). [40]
8	New Research Indices.	Utilizing the qualitative method of ABCD analysis/listing, five indices—the ARP Index, RC-Index, RE-Index, Project Productivity Index, and Cost Index—were analysed.	Aithal, P. S. (2017). [41]
9	Six Thinking Hats Based Analysis.	Six thinking hats was analysed through assessing the Advantages, Benefits, Constraints and Disadvantages for taking risk Decisions.	Rangi, P. K., & Aithal, P. S. (2020). [42]
10	Organizing the Unorganized Lifestyle Retailers.	ABCD listing was used to compare the organized and unorganized lifestyle.	Ganesh H. R., & Aithal, P. S. (2020). [43].
11	Student Centric Learning Though Planned Hard work	The repercussions of shifting the curriculum from the state to the national level can be addressed by a college by creating an inventive model for students to follow.	Aithal, S., & Aithal, P. S. (2016). [44]
12	Innovation in B.Tech. Curriculum as B.Tech. (Hons).	ABCD listing is an effective tool to analyse STEAM &ESEP based B.Tech. (Hons) Model	Aithal, P. S., & Aithal, S. (2019). [45]
13	Green Education	In this paper, the significance of the educational system and the design of the curricula was explored in the context of future prospects.	Aithal, P. S., & Rao, P. (2016). [46]
14	Green Energy and Global Warming	Green energy lessens the extraction of carbon from the ground, reducing geological imbalance. For the best results, energy generation and use can be decentralized. The installation of renewable energy sources on rooftops to accommodate individual needs satisfies home energy needs. This lessens	Aithal, P. S., & Acharya, S. (2016). [47]



		radiation from the sun's rays on the rooftop as well as energy waste. However, the needs of the industry might not be satisfied by this adoption strategy.	
15	Smart Library Models for Future Generations	Technology improvements are causing a revolution in the library system. The majority of resources are currently accessible online, therefore a click-and-mortar library system is the way of the future.	Aithal, P. S. (2016). [48]
16	MUDRA	The study looked at how much MUDRA's financial requirements contributed to cash flow in the agricultural sector. Entrepreneurship in agriculturally related industries to expand employment possibilities in rural and urban India. The advantages, benefits, limitations, and drawbacks of MUDRA support to SMEs, MSMEs, and agriculture are illustrated through study.	Aithal, P. S., & Sharma, K. R. S. (2022). [49]
17	PPP Model of MIA	The MIA's PPP Model shows promise for enhancing service delivery professionalism, efficacy, and expertise in accordance with worldwide norms.	Kumari, P., & Aithal, P. S. (2020) [50]
18	Performance Evaluation of Dabur India Ltd.	This section covers the significance of the profitability ratio, modifications to the profitability components, analysis of the profitability ratio, CSR programmes, and the ABCD listing of Dabur Company.	Bharathi, & Suresh Ramana Mayya. (2022). [51]
19	Grading In Higher Education	By analysing competency level performance indicators and identifying the major variables leading to competency, their purposes, and consequences, it was possible to identify the factors that aid in predicting performance in a work setting. The intervention strategies for higher education institutions are also covered in this article.	Aithal, P. S., & Kumar, P. M. (2019) [52]
20	Online E-Campus Recruitment Process	Due to the use of cutting-edge automated technology and super process excellence approaches in the corporate context, even employing new personnel has been organised as an online flow system for consistent results.	Shenoy, V., Aithal, P. S., & Pai, R. (2018) [53]
21	Livestream as an Innovative Marketing Medium	Livestream is a great tool for recruiting internal team members and allies for the company. A persistent trend in retail and e-commerce is livestreaming. The live feed was an excellent way to reach customers and boost engagement during the outbreak	Rajasekar, D. & Aithal, P. S. (2022). [54]
22	Online Pharmacy Model	Examined customer perceptions, opinions, and worries regarding the	Aithal, A., & Shabaraya, A. R.

		internet's role in the drug supply chain. Examinations of the numerous issues and factors affecting online pharmacies have been done using the ABCD listing approach.	(2018). [55]
23	Furniture Manufacturing Companies	This investigation discovered a number of fine facts related to furniture price, customization, and unique selling proposition through segmentation/segments that they are operating in.	Amin, V. S., & Kumar, A. (2022) [56]
24	Srinivas University B.Com Model In Corporate Auditing	To overcome the difficulty of simultaneously studying two disciplines with distinct curricula, Srinivas University launched a B.Com programme in Corporate Auditing with a CA intermediate syllabus. The program's special characteristics, perks, and advantages for obtaining a Dual degree/certification have been covered in detail.	Aithal, P. S., & Noronha, S. (2016). [57]
25	IT-Virtualization	By using virtualization, the physical server footprint can be reduced. The data centers will run at their highest levels of energy and floor space efficiency. A smaller server will operate more efficiently, produce more heat, necessitate more cooling equipment, and take up less floor space, therefore its size is a significant concern. Virtualization will enable the removal of all of these restrictions.	Lathika, K. (2016) [58]
26	Social Media	Through virtual meetings, the company created the metaverse, which enables people to select their preferred style. Fashion brands and companies have created their own digital collections for millions of players worldwide using internet sites (meta platforms), new items, and partnerships with video games.	Madhura, K., & Panakaje, N. (2022). [59]
27	Ideal Software	The topic of debate is the characteristics of hypothetical software, or ideal software, and the potential application of such software for any kind of system automation and networking, or Universal Automation.	Aithal, P. S., & Pai T, V. (2016). [60]
28	Electricity from microbial fuel cell in rural India.	Investigated the challenges in creating MFCs for rural India. MFCs must be developed at a high cost in order to provide the population of the rural area with adequate electricity. The ABCD listing for use in rural India was used to evaluate this.	Acharya, S., & Aithal, P. S. (2017) [61]

The above discussed papers have clearly demonstrated the usage of ABCD listing. There many articles apart from the above articles which has listed various advantages, benefits, constraints and disadvantages of Role of ICCT Underlying Technologies [62], Women Entrepreneurship in Food Processing Sector [63], Holistic Integrated Student Development Model & Service Delivery Model [64], Online E-Campus Interview Training [65], Mobile Information Communication Technologies[66], Innovations & Business Opportunities[67], Srinivas University B. COM Model[68], Student Centric Curriculum Design and Implementation[69], Retrieval Time of Manual and Electronic Medical Records [70], new attitude-behaviour (AB) theory [71], Block chain [72] and Indian Pharmaceutical Sector [73]. All of the aforementioned articles on ABCD listing have provided examples of how to list out advantages, benefits, constraints, and disadvantages and have assisted researchers in their evaluation of the efficacy of various business models, phenomena, concepts, etc.

#### 4.2.2 Literature review on ABCD Analysis with Affecting Factors & Critical Constituent Elements:

To delve further deeper into factor and basic analysis using the ABCD paradigm, some academic papers are cited. The determinant concerns found in academic articles employing the ABCD framework are displayed in the tables below.

**Table 3:** Selected papers that used ABCD Analysis with Affecting Factors & Critical Constituent Elements

S. No.	Area/Focus	Determinant issue	Reference
1	BOP	Operational issues, Stakeholder issues, Business issues, Users/customer issues.	Raj, Keerthan and Aithal, P. S., (2018) [18]
2	The well-being of Care takers	Psycho education and Jacobson’s muscle relaxation therapy	PV, A. H., & Kotian, S. (2022). [74]
3	Work from home	Employers/ Employees issues, Environmental & Social issues, Customer/Student issues, and Organizational issues.	Reshma, Aithal, P. S., & Acharya, S. (2015). [75]
4	Dye-doped Polymers for Photonic Applications	Commercialization Issues, Customer Issues, Material Issues, Application Issues, Production/Service providers Issues, Environmental/Society Issues	Aithal, P. S., Shailashree, V. T., & Kumar, P. M. (2016). [76]
5	Private University System in India.	Financial Resources, Image, Programs, Faculty Profile.	Aithal, P. S., and Shailashree, V. T., and Kumar, P. M. Suresh. (2015). [77]
6	Black Ocean Strategy.	Administrative Issues, Business Issues, External Issues, Employee Issues, Operational Issues	Aithal, P. S., and Shailashree, V. T., and Kumar, P. M. Suresh. (2016). [5]
7	NAAC Accreditation System	Organizational Issues, Student support progression Issues, Faculty Performance Issues, Issues on Infrastructure, Learning resources and Research, Governance, Leadership & Innovations Issues	Aithal, P. S., Shailashree, V. T., & Suresh Kumar, P. M., (2016). [9]
8	National Institutional Ranking System and	Organizational issues, Student Issues, Academic issues, Faculty Issues, Other	Aithal, P. S., and Shailashree, V. T.,

	Higher Education.	Stakeholders Issues, Issues on Administration Infrastructure And Learning resources	and Kumar, P. M. Suresh. (2016). Aithal, P. S., (2017). [78][79]
9	Business model and systems	Organizational issues, Business operation issues, Stakeholders issues, Environment/society issues, Technology issues	Aithal, P. S. & Suresh Kumar, P. M. (2016). [80]
10	Theory A	Organizational issues Employees issues, Managers issues, Ideological issues, Societal and Stake Holder issues	Aithal, P. S., Kumar, P. M., & Shailashree, V. (2016). [81]
11	Six Thinking Hat Technique	Organizational issues, Conceptual issues, Operational issues, Managerial issues, and Societal & stakeholders issues.	Aithal, P. S., VT, S., & Kumar, P. M. (2016). [82]
12	Research Productivity	Organizational Issues, other stakeholders issue, Students issue and Academic issue	Aithal, P. S., Shailashree, V. T., & Kumar, P. M. (2016). [83]
13	Industrial Internship Programme	Student Issues, Institute Issues, Society Issues and Host Company Issues.	Frederick, D. P., & Shailashree, V. T. (2022) [84]
14	Online food delivery system	Customer Issues, Supplier Issues, Food Delivery Technology Issues and Delivery Partner Issues.	Frederick, D. P., & Bhat, G. (2022). [85]

Multiple studies on ABCD analysis have explored identifying the concerns that make up its determinants, allowing for further discovery of numerous aspects influencing the specific issue. The aforementioned articles used ABCD analysis while taking determinant factors into account. In addition to these, many other studies have also discussed ABCD analysis while taking determinant factors into account, including those on the Multifactor Authentication Model [86], Fingerprint Biometric Attendance [87], Institutional Ranking System [88], etc.

#### 4.2.3 Literature Review on Quantitative ABCD Analysis with Construct Weightage:

To comprehend the direction for quantitative ABCD analysis, numerous other studies that have applied the quantitative ABCD analysis techniques have also been reviewed, these articles are mentioned herein regarding online food delivery services, organic food products, education for corporate sustainability, new research indices, stress coping mechanisms and work force studies reviewed in table 4.

**Table 4:** Selected papers that used Quantitative ABCD Analysis with Construct Weightage

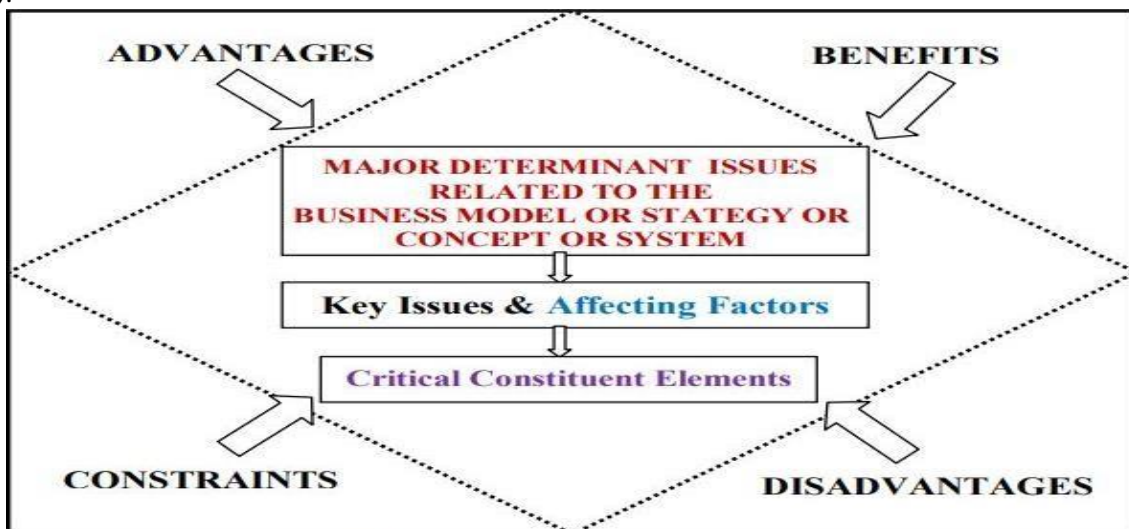
S. No.	Area/Focus	Purpose/Outcome	Reference
1	Online Food Delivery Services.	Quantitative ABCD research of Online Food Delivery Services indicated that Advantages aspects contribute considerably to the success of the firm. The outcome of the ABCD study supports the premise that online food delivery services are effective.	Frederick, D. P., & Bhat, G. (2022). [89]
2	Organic Food Product and Purchase Intention.	Studying the ABCD Analysis Framework for Online Shopping and identifying the key factors that influence it are the study's main objectives. According to study findings, of	Frederick, D. P., Sujaya, H., & Salins, M. (2022). [90]

		the four components, the advantages factor has a greater positive impact on the country's development.	
3	Education for Corporate Sustainability	Examined the ABCD analysis to determine whether the study of education for corporate sustainability reporting was appropriate. Furthermore, it was shown that the higher educational institutions' idea of education for business sustainability disclosures offers significant benefits to the stakeholders.	Nayak, P., & Kayarkatte, N. (2022). [91]
4	IEDRA Model	The study's goal was to understand the IEDRA Model of Campus Placement Determination's applicability, resourcefulness, and Universal Applications to Concerned Stakeholders.	Shenoy, V., & Aithal, P. S. (2017). [92]
5	Task Shifting	This research does the ABCD analysis of task-shifting by taking into account six determining issues. Twenty-one main characteristics, eighty-four influencing aspects, and 172 essential constituent elements are what make this analysis process successful.	Aithal, A., & Aithal, P. S. (2017) [93]
6	Stress Coping Mechanisms	Examines the stress coping mechanisms related to cabin crew in international airlines in India.	Pavithra Kumari, & Aithal P. S. (2022) [97]

**5. APPLICATION OF THE ABCD ANALYSIS TECHNIQUE TO STUDY BOP MARKETS STRATEGIES AND MODELS :**

Based primarily on secondary data of the successes and failures, modus operandi of various multinationals and large corporations who have ventured to do business in the base of the pyramid markets, and on focus group studies conducted we have developed a list of the key determinant issues affecting the proposition of doing business and we have classified the main factors as per ABCD analysis as either advantages, benefits, constraints or disadvantages in the primes issues considered [76][83][94].

The various issues we have considered at a macro level are as mentioned in the block diagram (figure 1).



**Fig. 1:** Application of ABCD analysis to study the feasibility study of BOP markets [13]

The followings are the determinants of a general business strategy to operate in BOP markets:

(1) Stakeholders Issues - profitable business - Stakeholders will always be concerned about the profitability of the new market or segment entry strategy. When new products need to be developed, as in today’s scenario when large businesses are looking at ‘beyond greening’, on creating a value chain proposition, the financial resources required will be very huge, if it fails it cannot just be hived off into a charitable foundation arm, the stakeholders will have a constant lookout on this aspect.

(2) Business Issues - New market entry - to look for increased income by selling in emerging markets where there is a huge opportunity to sell products and services to low-income groups. Even though in the low-income category of consumers the essentials are not yet available to the consumers, new needs can be tapped and addressed profitably.

Strategy to adapt to these markets - the biggest challenge is to create or feature existing products in a way that meets the requirements of the market while not being too expensive to produce and sell. The infrastructure in most emerging markets of the world is not substantive, hence, distribution logistics are going to eat into the financial resources thus maybe creating a drop in margins. Overcoming this with unique strategies is a critical success determinant.

(3) Operational Issues - Distribution, reach, and existing knowledge or expertise –working on the product features and distribution network could need significant changes. If they have been successful across the globe, multinationals need to ensure that they do not carry this baggage because this could blind their view of strategizing newer ways, and additionally, there could be challenges in the bureaucratic policies of the countries that the firms might want to enter.

(4) Users/customer Issues - Strategizing businesses around emerging market needs and responding to their unique specific consumer behaviors. It needs a deeper understanding of what drives businesses here.

(5) Technological Issues – Technological expertise and the need to create environmentally safe products and co-creation are critical - Most large corporations, whether home or foreign have built a technological strength. This is something that can be very useful to recreate features, and products to suit the needs of the consumers at the base of the pyramid segments.

Global scale and local reach - multinationals having global scale have to adopt local techniques and localize productions and sales. Evolving sustainable business solutions is the success criterion.

(6) Environmental & Social Issues - Beyond greening sustainable solutions - As, Hart has been addressing issues around greening and beyond greening in the recent past, environmental and social concerns are predominant among the emerging markets. Especially, since there is also the argument that multinationals should not arm twist and take undue advantage of the base of the pyramid consumers and exploit them for profits. Hence, value co-creation while involving them in the process is important.

Analysis of generating revenues profitably (extracting wealth) by operating in BOP markets using ABCD framework by considering above discussed determinant issues to choose affecting factors for identified key attributes under the constructs advantages, benefits, constraints, and disadvantages are listed in table 5.

**Table 5:** Determinant Issues and the ABCD analysis of each issue

Key Attributes	Advantages	Benefits	Constraints	Disadvantages
<b>I – Stakeholder Issues</b>				
<b>High Costs of entry</b>	Bigger market share globally	Global leadership	Leveraging costs	Lack of local knowledge
<b>Profitability</b>	Mover advantage	Increased revenue in the long run	Initial low margins	Unsuccessful product sets
<b>Brand dilution concern</b>	Extended brand and flagship products	Diverse product portfolio	Niche customer valuations	Loss of Unique product segment leadership
<b>II – Business Issues</b>				

<b>New market strategies</b>	Fresh outlook	Untapped revenuesources	Global Knowledge	Lack of local knowledge
<b>Functional Capabilities</b>	Adaption tolocal community	Increased revenues	rs	Company myopia
<b>Strategic decisions on the P's of marketing</b>	New opportunity to experiment	Vast untapped needs and product suites	Acceptability andsustenance	Failure to understand consumers
<b>III – Operational Issues</b>				
<b>Bureaucratic issues in Market Access</b>	Entry issues, no easy access to all	Better local understanding	Problems and high entry costs	Appears unattractive
<b>Product Policies</b>	Grassroots study	Wider productsuite	Local acceptance& information sharing	An experimental approach couldlead to heavy losses
<b>Distribution reach</b>	Vast opportunity	Build strong logistics	Infrastructure	Scalability
<b>Current company strategy and business outlook</b>	New business arena	Create diverse model	Existing knowledge and experience	High costs of implementat ionand operation
<b>IV – Customer Issues</b>				
<b>Acceptance</b>	Expansive market	Word of mouth publicity	Close-knit communities	Negative repercussions
<b>Sustainability</b>	Growth	Market share	Short-sighted approach	Too much focus
<b>Approach</b>	First mover advantage	Difficult to copy	Needs in-depth understanding	Expensive andextensive
<b>V – Technological Issues</b>				
<b>Co-creation</b>	Successformula	Value creation	Bottlenecks	Lack of long-run planning
<b>Eco friendly</b>	Positive affect	Better acceptance	Production technology	High Costs
<b>Maintaining Lowcosts</b>	Eases pricing issues	Lower price offerings	Operational issues	Better margins
<b>VI – Environmental &amp; Social Issues</b>				
<b>Beyond greening</b>	Friendly technology	Sustained value	Associated Cost	Low margins initially
<b>CSR</b>	Philanthropic in outlook	Positive image	Administrative	Long gestation
<b>Sustainable valuecreation</b>	Global technology	Market value andbrand image	Local players	Lack of local knowledge

*Source: Author*

## 6. QUANTITATIVE ANALYSIS OF CONSTITUENT CRITICAL ELEMENTS AS PER ABCD MODEL :

As per the ABCD framework for the aspect of considering the strategies of extracting wealth at the base of the pyramid markets by multinationals and large corporations affecting Stakeholder issues, Business issues, Operational Issues, Customer Issues, Technological Issues, and Environmental/Social Issues are identified [41][93-96]. The critical constituent elements of these factors are listed under the four constructs - advantages, benefits, constraints, and disadvantages of the ABCD technique and tabulated in tables 6 to 9. The critical constituent elements were identified by a focus group discussion with industry representatives who are operating in the BoP segments across various product categories. The quantitative methodology developed for the study was by assigning appropriate weightage for the critical constituent elements after focused discussions with industry experts. The ratings were arrived at by eliciting responses for the CCEs from the BoP partners, and retailers through a systematic primary data collection for the CCE with the weighted scores.

### 6.1 Weights:

Each element in the CCE of each key attribute has been assigned a weight ranging from 1.0 (low importance) to 10 (high importance) in total. The number indicates how important the factor is if a company wants to succeed in this segment. If there were no weights assigned, all the factors would be equally important, which is an impossible scenario in the real world. The sum of all the weights of each key attribute must equal 10. Separate key attributes are all given equal emphasis in weightage assignment (assigning a total weight of 10 each) because the framework looks at the equal importance of key attributes identified in an industry.

### 6.2 Ratings:

The ratings in ABCD Quantitative Matrix refer to how strong or weak each factor is in a firm. The numbers range from 4 to 1, where 5 means a highly important factor, 4 – a moderately important factor, 3 – An averagely important factor, 2 – Not very important, and 1 – Least important. The process of assigning ratings is based on of focus group study using a benchmarking tool with existing business situations.

### 6.3 Weighted Score:

The score is the result of weight multiplied by the rating. Each factor of the key attributes must receive a score. The totalled score is simply the sum of all individual weighted scores. The total score of <75 is poor and can be interpreted as weak attributional factors that can be easily overcome with a suitable strategy. A total score of >75 <150 is considered a key attribute that has significant importance and needs adequate attention. A total score of > 150 < 300 is considered very important from the standpoint of strategizing and the analysis framework score. Here, we can see that the advantages and benefits have received a total score of 227 and 218 respectively, while constraints have received a total score of 83, which can be interpreted as the total advantages and benefits of doing business in the BoP segment outweigh the constraints, and as it can be studied the disadvantages have a total score of 155, hence the firm has to work rigorously to take stock of its inherent advantages and benefits to formulate strategies to enter, operate and sustain in the market in such a way that that the inherent disadvantages are considered carefully to convert them into to opportunities.

**Table 6:** Advantages of operating in the BOP market:

Particulars	Factors Affecting	Critical Constituent Elements	Weightage	Average Rating Scores	Weighted Score
Stakeholder Issues	Entry Strategy	First mover advantage	2	5	10
	Profits	Scalability	3	4	12



	Brand Image	Extended brand line	2	3	6
	Nascent Market	Product differentiation	3	4	12
<b>Business Issues</b>	Fresh Outlook by adopting new strategies	Develop workable models	2	4	8
	Adaption to the local community	Sustainability	2	3	6
	Untapped market	Value creation	2	4	8
	Possibility of failure	Failed strategy & unacceptability	2	4	8
	Operation Costs	Leveraging on existing value points	2	5	10
<b>Operational Issues</b>	Limited Knowledge Market	Economic & Socio-cultural understanding	3	4	12
	Distribution	Infrastructure	2	3	6
		Inventory	2	2	4
	New business arena	In-depth Market research	3	4	12
<b>Customer Issues</b>	Market acceptance	Adaption to local needs	3	4	12
		Co-partnering - Tie up with the local community and existing players	3	4	12
	Growth	Sustained value creation through partnership	2	4	8
	Approach	Create first mover advantage	2	3	6
<b>Technological Issues</b>	Co-creation	Possible sharing of technological expertise	2	4	8
	Eco friendly	Beyond greening technologies	3	3	9

	Cost vs. profits	Keep costs low	3	4	12
	Tech savviness of BoP	Digital transactions	2	4	8
<b>Environmental and Social Issues</b>	CSR	Community Support	3	4	12
		Provide socio-economic development	3	4	12
	Beyond greening	Sustained value	2	3	6
	Global technology	Focus on strengths	2	4	8
<b>Total</b>			<b>60</b>	<b>94</b>	<b>227</b>

Source: Author

**Table 7:** Benefits of operating in the BOP market to generate higher revenues

Particulars	Factors Affecting	Critical Constituent Element	Weightage	Average Rating Scores	Weighted Score
<b>Stakeholder Issues</b>	Global leadership	Local adaptability	2	5	10
	Profits	Scalable & sustainable success	4	5	20
	Diverse product portfolio	Create niche brands for specific markets	4	4	16
<b>Business Issues</b>	Untapped revenue sources	Researched entry	4	3	12
	Increased revenues	Lowering costs	2	5	10
	New strategies	Adaptability	4	4	16
<b>Operational Issues</b>	Challenges of new markets	Operational flexibility	2	4	8
	New Strategies	Strengthen existing brands	2	3	6
		Leverage on global image	1	3	3
		Local manufacturing	1	2	2
	Reach	Infrastructure	1	2	2
		Partner locally	1	4	4
	Create diverse model	Dilution and disorientation	2	4	8

<b>Customer Issues</b>	Socio-psychological Impact	Outreach & Acceptance	4	4	16
	Growth	Local adaptability	3	3	9
	Sustainability & Scalability	Affordability, Awareness & Acceptance	4	4	16
<b>Technological Issues</b>	Cost of operations	Value Chain Creation	3	2	6
	Acceptance	Understanding of local conditions	4	4	16
	Pricing	Strategic models	3	2	6
<b>Environmental &amp; Social Issues</b>	Sustained value	Co-creation	2	2	4
	Positive image	Partnering locally	4	3	12
	Market value and brand image	Global leader – local server	4	4	16
<b>Total</b>			<b>61</b>	<b>76</b>	<b>218</b>

Source: Author

**Table 8:** Constraints of operating in BOP markets to generate higher revenues

Particulars	Factors Affecting	Critical Constituent Elements	Weightage	Average Rating Scores	Weighted Score
<b>Stakeholder Issues</b>	Leveraging costs	Entry and operating costs	4	3	12
	Initial low margins	Product suite	3	2	6
	Niche segment	Value creation in a niche segment	3	2	6
<b>Business Issues</b>	Global Knowledge	Study local markets	2	2	4
	Distribution & logistics	Tie-up's	2	3	6
	Acceptability and sustenance	Creation of critical Need-based product suites	3	3	9
		Diverse Marketing partnerships	3	2	6
<b>Operational Issues</b>	High entry costs	Local manufacturing tie-ups	1	3	3
		Fear of losing technological expertise	2	2	4
	Partnerships	Local acceptance and information sharing	3	4	12

	Infrastructure	Outreach through community entrepreneurs	2	3	6
	Global knowledge & position	Enter small	2	2	4
<b>Customer Issues</b>	Close-knit communities	Market segmentation	2	3	6
		Market targeting	2	2	4
		Market positioning	2	2	4
	Short-sighted approach	Long run strategy	2	2	4
	Needs in-depth understanding	Gain knowledge from the local community	2	2	4
<b>Technological Issues</b>	Bottlenecks	Economic & political awareness	3	2	6
	Technology	Sustainable & eco friendly	3	2	6
	Beyond greening	Local best practices	4	2	8
<b>Environmental &amp; Social Issues</b>	Overall image & costs	CSR initiatives	3	3	9
	Administrative	Partner locally to build communities	4	4	16
	Local players	Partnerships of competitors	3	2	6
<b>Total</b>			<b>34</b>	<b>31</b>	<b>83</b>

Source: Author

**Table 9:** Disadvantages of operating in BOP markets to generate higher revenues

Particulars	Factors Affecting	Critical Constituent Elements	Weightage	Average Rating Scores	Weighted Score
<b>Stakeholder Issues</b>	Lack of local knowledge	Gaining acceptance	2	3	6
	Unsuccessful product sets	Researched approach	3	2	6
	Loss of Unique product segment leadership	Maintain global leadership	2	2	4
		Create diverse flagship brands	3	3	9

<b>Business Issues</b>	Poor community knowledge	Gaining understanding & acceptance	4	3	12
	Large informal economy	Develop diverse business models	3	3	9
	Failure to understand	Short term vision	3	2	6
<b>Operational Issues</b>	Cost-benefit analysis	Long-term business strategy	3	3	9
	Un-researched strategies	Time to market	2	2	4
	Scalability	Focus on building strong partnerships	2	3	6
		Distribution	2	3	6
High costs of implementation and operation	Operational leverage	1	2	2	
<b>Customer Issues</b>	Negative repercussions	Poor local understanding	3	3	9
	Poor acceptance	Localizing global knowledge	4	3	12
	Expensive and extensive	Co-creation & Manufacturing	3	2	6
<b>Technological Issues</b>	Poor technology	Sustenance	4	3	12
	Gestation period	Focus on margins gradually	2	3	6
	Availability and acceptability	Customer class	4	2	8
<b>Environmental &amp; Social Issues</b>	Short-sighted approach	The long-term vision for the segment	3	3	9
	Political interference	Local lobbying	4	2	8
	Lack of local knowledge	Extensive market research	3	2	6
<b>Total</b>			<b>60</b>	<b>54</b>	<b>155</b>

*Source: Author*

The ABCD quantitative analysis has a unique advantage if applied through the focus group study, as it gives immense insights into industry-specific attributes and critical constituent elements with weights vetted by experts making it consistently less subjective and an objective quantitative technique

of analysis. These results can be combined with grassroots-level customer studies to discuss new strategies for business. They are especially useful when building business models for nascent business areas and domains.

Depicted below is a graphical representation of the quantitative analysis of the ABCD analysis of the BoP market.



Fig. 2: Graphical representation of ABCD Analysis

Source: Author

### 7. SUGGESTIONS :

We have studied the prime issues and various factors affecting the strategy of doing business in the base of the pyramid markets based on the ABCD quantitative analysis framework. Various factors affecting the issues of this strategy or business decision along with their critical constituent elements are identified and analyzed. It is found that the factors supporting advantages and benefits are more effective as compared to constraints and disadvantages of this business decision while keeping aside other factors that could be specified relative to the country under consideration. We find that it is feasible for companies to do business profitably at the base of the pyramid markets, but certain critical constituent elements that have been identified in each determinant is needed to be studied closely and given due importance while strategizing the plan of action and prioritizing the steps going forward. As articulated by Prahalad and Hart, the BOP initiative was proposed to enable multinationals and large corporations to contribute to overall socio-economic development. Poverty alleviation and societal development were and could not continue to be the agenda of the government and aided agencies alone. As such market-based approaches have been used to address the profitability of these ventures. An analysis of the BOP markets based on the ABCD quantitative analyzing framework has brought out dominant determinant issues and inherent key affecting factors with weighted scores. The benefits that can be attained while working on the advantages in this situation can be a large extent help in overcoming or negating the disadvantages brought in by the constraints, we have considered in each factor mentioned above.

The constraints are the bottlenecks that would or have prevented many corporations from attaining success in reaching out to and serving the vast BOP markets. The opportunities are huge but many corporations have been grounded by a myopic vision which is not possible in these markets. While initially they are attracted by the huge expanse of the untapped market, there are ample unmet needs at the most basic levels that can be addressed profitable and with a mutual value creation strategy. Multinationals and corporations have to devise strategies to operate there long enough to address these unmet societal needs, create competitive advantage, and realize that the long-term sustainability of these ventures will arise only by establishing mutually beneficial partnerships at the local level.

## 8. CONCLUSION :

We have used the ABCD quantitative analysis and this technique has proven highly effective in understanding the model and developing appropriate strategies for doing business in BOP segments in emerging markets. The wealth of information that has been classified under determinants and affecting factors will prove very useful to take forward the business strategies and adapt successful models to operate in BOP markets. The most critical success factor will be possible by converting the disadvantages created by the constraints into advantageous opportunities giving benefits to the companies for growth, profits, and expansion. The ABCD technique has already been used effectively for the study of various business models, business strategies and operating strategies earlier and it lends itself to understanding the efficacy of a model or strategy in a macro as well as micro manner.

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