

Business model for an inclusive, innovative and high-quality open-and-flexible education: Proposing a conceptual framework

1.0 Introduction

The concept of business model can essentially be referred to as a business plan where the anticipated costs and revenue are taken into account to examine its financial feasibility, profit-making prospects and sustainability. The notion has emerged from private businesses and hence is rarely used in case of public services, especially those that are viewed as ‘public good’. A public good, as we know, is a commodity or service that is non-rivalrous and non-excludable. Non-rivalrous means that the supply of that good does not reduce as more people consume it. Non-excludability means that the good is available to all, and no one is excluded. In general, goods that are considered essential and covers the needs of all citizens, falls under this category. Defence and safe drinking water are commonly used examples. Typically, a public good is provided by a government and funded through taxes. Although there has been a lot of debate around the issue if education, especially higher education, is a public good or not, given its contribution to private benefits in terms of higher potential income, there has been an agreement that if not pure, education is indeed a quasi public good, with features of both private and public good.

Without going into those debates, this paper acknowledges education as part of the broad category of public goods and part of human rights that ensures access to potentials for reducing inequalities and addressing human miseries in a definitive and sustained manner. Global and national level commitments to inclusiveness and protection of rights extend to education, and hence State, by and large, has a responsibility to ensure provisions for equitable and high-quality education for all. Nevertheless, it is also important that State is guided by sound policy choices and public finance decisions, and so, the application of notions such as business model helps in that process.

This paper presents a principles-based conceptual framework for such a business model, where the considerations are guided by commitments of inclusiveness and protection of rights while ensuring that rigour and quality are not compromised, and the dimensions of optimal costs and prudent usage of resources are also considered. Using the open-and-flexible-approach based education as an illustration, the conceptual paper includes examples and pathways to guide the use of this framework for undertaking exercises of estimating costs and generating revenue in a real-world situation, suggesting the use of thresholds for ensuring equity, quality, inclusion and participation.

Although small in number, the scholars have engaged with the issue of costing and revenue models in the area of education, including open education. This is especially true of higher education. For instance, Tian and Martin (2014) have discussed the challenges of developing a business model in the context of various choices related to objectives, values, costs, revenue in the Australian context

while Middlehurst (2002, pp. 151–152) has discussed similar dilemmas in the context of UK higher education institutions. Others including Du Vivier, E. (2008), Eurich, Calleja and Boutellier (2013), Khaddage et al. (2015) and Troxer and Wolf (2017) have explored similar questions, dilemmas and choices in a variety of context, and in with varying focus, but all pointing out to the complexity of decision-making process. The literature that deals with costs and financing of open schools and universities have also engaged with the issue (Du Vivier, E., 2008, Hülsmann, T., 2016, Murangi, H. V., 2020). This paper adds to this discussion by proposing a conceptual framework based on principles and application of principle-based thresholds to address the dilemmas and complexities faced in this context. The scope of the conceptual framework is wider, as it can be applied for any form of education or for that matter, any public service delivery model but it remains conceptual in nature. This framework has been drawn upon the work led by author in the context of early childhood development (Jha, Purohit and Pandey, 2020).

2.0 Guiding Principles

Three essential components of a business model include the presence of: a vision and a set of objectives, detailed and clear costing of all pieces of the initiative, and a revenue model with reference to time and space in terms of projections and coverage. While the essential components of a business model remain the same whether it is a public or private venture, the perspectives differ. These shifts in perspectives lead to a set of principles for public education that are slightly different from that of private initiative.

Both public and private initiatives need a high-level vision and clearly defined objectives, but the very set of objectives might be very different in nature. While reaching *all* potential target users (e.g., children or youth for an open schooling programme) including those facing personal (e.g., disabilities), locational (e.g., remote) or socio-economic (e.g., poor affordability or adverse social norms) disadvantages might be an important goal of a public education initiative, that may not be the case with private initiative. This means that **equity** is an important concern, which has its base in the principle of **protection of rights**. Protection of rights extends itself not only to learners but also to others such as educators. State, the provider of the public, is also a protector of rights, and hence, must be a pacesetter in this respect.

Quality assurance in education could and should be a goal for both public and private education but assuring **quality alongside equity** is a major challenge for public education. The quality of learning is highly dependent on the process of learning experiences, which in turn is not neutral to individual or socio-economic dimensions of equity.

Future readiness and opportunities for future expansion or growth is important aspect of a business model for its **sustainability**. Future readiness is important in all cases, but especially pertinent for the open education because of its link with technology, and fast changing nature of technology. Investment in technology is capital-intensive with implications for costing, notably in initial phases which could prove cost-saving in later periods (Hülsmann, T.,2016). However, decisions regarding what kind of technology and to what extent are key and would vary in its ramifications, depending on the **context**. For instance, in a densely populated area, it might be good choice to invest on supporting enhanced connectivity while in remote unconnected areas, it might be good choice to provide support for devices that work without connectivity. This implies that the sustainability

question needs to be rooted in integrating the use of local resources, knowledge and thresholds on various contours while also being futuristic and cognizant of global practices and trends.

Another important component of any business model is **accountability**. This translates itself into decisions to be made regarding assessments, credits and credentialing, certifications and development of both a system as well as infrastructure for the same when it comes to open education provisioning. This is also linked with aspects of quality and future readiness, in addition to equity. For instance, any choice made here needs to be responsive to the needs of those living in remote areas, if that is the case, or to have a suitable feedback loop for girls whose access to technology might be determined by social norms, while being amenable to the technological base and context in which it is going to operate.

Principle-based framework for public education business model

Costing, pricing and revenue forecast are three essential components of a business model. We argue that in case of public services these need to be based on a framework of the guiding principles discussed above. The following diagram presents a framework based on these principles.

Diagram 1: Developing a business-model for public education: a principles-based framework



Source: Author's conceptualisation¹

Costing of services is a challenging task, and the literature increasingly recommends activity-based costing for educational services, including in cases of open education (Anguiano, M., 2013, and Quesado, Patricia and Silva, Rui. 2021). Activity-based costing means that the actual costing exercise needs to list and cost all the components and processes in detail, taking their nature

¹ The author has used this first in one of her blogs: [Costing education: A framework based on rights, quality assurance and financial prudence - Commonwealth of Learning](#)

(capital or recurrent) and periodicity into account. Every single activity remains important, and therefore, working out a detailed plan for the proposed initiative becomes essential.

However, there are several essential **choices** that need to be determined within activity-based costing, especially pertaining to decisions to deal with quality and equity. For instance, an innovative open schooling service would need to consider several questions such as: (a) is there a need for a combination of in-person teaching-learning and distance learning, and if so, what combination of the two would be optimum, especially for those who are coming from challenging circumstances? (b) how to determine the elements of 'distance' – technology negotiated (synchronous /asynchronous?), print-based, radio-based, one-to-one mentoring, etc.? (c) who has access and who does not have – what the solution is if access is restricted? (d) who will be the educators and mentors and what is the additional support needed for those facing specific disabilities / barriers? These are just some examples and there could be a series of other questions that need to be answered to determine the choice of activities.

What is important here is that the choice itself could be determined by the cost of the choice being made and the provider's capacity to afford that cost. Nevertheless, the process of making choice is to be also determined by needs imposed by criteria of equity and quality – a cheaper choice may or may not fulfil these criteria fully or partially. This leads us to the need for applying *flexibility* as well as *context-responsiveness* while adhering to the principles of *equity* and *quality* in making choices and accordingly cost those. For example, costing of any new blended-learning-based programme needs to take note of the internet penetration and affordability in a country into account while also being aware of the fact that hybrid learning and credentials-based learning are going to become more common in future, and therefore any such investment may not be untimely. This could imply that costing needs to take future needs also into account.

Pricing is an important aspect of a business model and essentially linked with profit-potentials in case of private ventures. Nevertheless, it needs to take the demand size also into consideration, as high price could adversely impact the demand. While the same principle applies for public services as well, the equity commitment severely limits its capacity to determine the price guided by the so-called market demand alone. Expanding reach and access is at the heart of public education and it is especially important to ensure that the private costs are not a deterrent for reaching those who face the issues of affordability and other barriers. Price matters for those who cannot afford it, but it also matters to those who face adverse social norms preventing them from accessing education, as families are not willing to invest on their education even if they can afford it. Girls and women continue to face such situations in many parts of the world even today. This implies that pricing of public services need not be guided by the principle of covering full cost by passing it entirely to 'customers'; it needs looking at alternative ways that could support these provisions by realising that quality and equity are inseparable in the context of public education (McCambly, H., & Mulroy, Q., 2024).

Pricing is linked with both revenue and costs. Revenue earned through pricing or user charge is only one of the sources of revenue. A comprehensive plan of revenue would include other possible sources, including grants from the government in case of a public service. This can also be referred to as the element of subsidy to keep the prices low or nil in consideration of equity concerns. In addition to direct grants, the revenue plan for a public service could also include other sources,

such as donations from businesses or citizens, a specific levy charged to industries and other selected targets to especially fund education or some such measure, that is normally not available to a private provider.

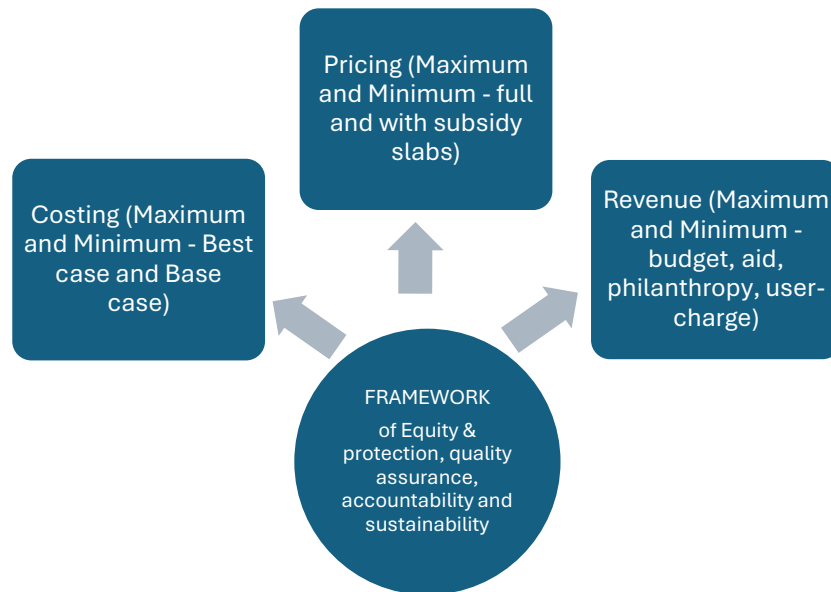
3.0 'Base case' and 'Best case' costing: Threshold based application of the conceptual framework to work out the non-negotiables

It is not easy for any government or public institution to develop a business model based on these principles given the constraints of revenue, costs and prices. However, if these are applied to build thresholds to work out minimums (for costing) and maximums (for pricing) and to determine the choice of potential revenue sources, the decision-making process becomes relatively easier. The application of thresholds helps in developing a range of scenarios with 'base case' and best case at the two ends of the range. Base case costing refers to a costing exercise where all elements / components of a particular choice are costed above a particular minimum threshold, below which one or the other principle - equity, quality, accountability and sustainability - starts getting adversely affected. Best case costing refers to a costing exercise where the best possible options are costed for all components and elements of a model. The business model building exercise can start with this process where the actual choice can lie somewhere between these two depending upon the potential revenue choices. The base-case and best-case exercises need to be undertaken without any consideration for financing. That is where the framework plays a role; it prevents decisions that are merely guided by financial constraints and enables decisions that would widen the potential sources of revenue, while also setting boundaries there as well.

In order to develop the thresholds that determine the base case, one would need to convert these principles into a set of norms that are fundamental and therefore non-negotiable. For example, if connectivity is important for access, then ensuring that all target locations are connected, and other determinants of access, if any in that particular context are considered. If girls are known to be excluded in a particular reason by families because they do not prioritise women's education, it is important that an incentive to counter this exists in the plan and is counted as non-negotiable. The context will determine the list of non-negotiables.

It is also important that all costs, including those of the processes, are counted. For instance, if periodic training of mentors and educators are critical for quality assurance and ensuring that learners' engagement, that must be part of the base cost estimations. Similarly, if investments in digital infrastructure are critical for ensuring access, that needs to be counted as well. After the costing exercise, the pricing scenarios can be undertaken which also needs to be determined by a threshold of maximums and minimum taking the four principles into consideration. The context of learners and status of development in a any given space and time would determine this range of possible pricing. The pricing exercise can also lead to identification of subsidy needs. Once the pricing options are known, the revenue requirement can be worked out by looking at the gaps in the revenue generated through pricing and the costs of the base-case and best-case.

Diagram 2: 'Base case' (Minimum) and 'Best case' ((Maximum): Threshold based application of the conceptual framework



Source: Author's conceptualisation

The revenue envelop would include diverse revenue sources including philanthropy and aid and user charges, but with an eye for the identified principles. For example, if tech-industry can play a role in creating digital public infrastructure, that should also be considered as part of the philanthropy drive where they can contribute for public education without being entirely guided by the market principles. The consideration for principles is important here as well, for instance, the accountability principle ensures that no revenue promotes or plays into any kind of vested interest. If a tech industry provides contributions on philanthropy basis, it cannot push any conditionality to serve its own vested interests.

Two aspects that influence the costing, pricing and revenue assessments are scale and time frame. Scale is often associated with reduction in average cost, as at large scale the cost gets subdivided by a larger number of users. However, size is not always the only determinant, and the spread would also play a role – if the large number of learners are spread across difficult locations, scale of operations may lead to a higher average cost. In other words, the context matters. Time frame is a critical variable, as a longer time frame allows for a different perspective on both costs and revenue. For instance, the need for high investment at initial stage of technology-assisted open education service with costs going significantly down in subsequent periods has implications for the need to determine the size of subsidy and potential revenue sources. A developing country can view even international aid as a source of revenue accessible for initial phase of high capital investment in technology, therefore reducing the load on internal resources for subsidising the initiative.

A range of scenario considering alternative sets of costs, revenue and prices for varying scale and timeframes can be worked out and an equilibrium among the three can be arrived at using the thresholds of minimum and maximum in conjunction with other political economic factors in any given context. The important argument about cost, revenue and pricing is that cost cannot be reduced below the base case level with efforts to make sure that enough revenue is generated using diverse sources to meet the costs worked out taking all the principles of equity, quality,

accountability and context into consideration. Pricing of services could be part of the revenue planning but that too must be guided by the same set of principles. Scenario building taking various alternatives and combinations into account over a period of time would determine the actual choices, but these principles act as thresholds for building alternative scenarios of cost, pricing and revenue.

3.0 Conclusions

The exercise has implications for developing facilitative costing principles and guidelines as well as the size of the public budgets meant for respective services. It is not necessary that the concerned government pay for the entire cost through its budgetary allocations. Resource generation through diverse sources, including public contribution and private partnership, is possible, and a comprehensive costing exercise helps in predicting the resource requirement and apportioning it to the contributions, which otherwise mostly remain unacknowledged. It is also possible to introduce cost-saving measures and change the cost estimates using such frameworks if the rights and quality parameters are not compromised. The parameters themselves can be flexible as long as they are based on principles that are clearly defined and commonly understood.

Basically, this model recommends working out a range of options rather than a blueprint to guide the decision, all based on a set of principles that guide the public education choices in a democracy. The main arguments are that (i) it is important to estimate the costs of service delivery because this helps in public policy decision-making in the areas of budgets, subsidies, and cost recovery, (ii) the costs need to be estimated by considering the economic costs of providing a high-quality service while unpacking the dimensions of quality and defining the rights of all concerned, and (iii) lack of budgetary resources should not act as deterrent for estimating full costs and looking for alternative sources of funding.

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