Technologies-Based Entrepreneurship and Innovation Strategies: A Case Study on Pathao in Bangladesh

Choton Chowdhury
St. Xavier's College, Burdwan University
West Bengal, India

In the past decades, technology-based entrepreneurship has come to be seen as a significant catalyst for economic growth, innovation, and development, especially in emerging markets such as Bangladesh. With the fast-changing technological environment expanding globally, new entrepreneurial models utilizing technology have emerged and are transforming industries and regions. However, technology-based entrepreneurship is not universal, as it has a different possible impact based on local ecosystems, market conditions, and certain characteristics of the technology being introduced. This article explores the significance of technology-driven entrepreneurship in the progression of Bangladesh through an examination of Pathao, one of the country's fastest-growing tech-based entrepreneurs that offers ride-hailing and logistics. Through Pathao's innovative strategies and business models, this studies reveal the factors contributing to this technology-based success and the wider implications of technology-driven entrepreneurship around economic development in emerging markets.

Technology-based entrepreneurship is frequently addressed through the frames of innovation and disruption. Oftentimes, businesses that are operating at the forefront of technology are using technology to question pre-existing norms and are innovating new solutions to pre-existing problems. Studies have shown that new technology-based firms (NTBFs) are critical influences on regional economic growth; NTBFs contribute to the local economy not only through their own expansion, but also through providing specialized inputs to other firms in a regional ecosystem, creating a more dynamic and interconnected local community[1]. The present study synthesizes these ideas by examining the emergence of Pathao as a premier technology-based venture that organized innovation to address urban issues in Bangladesh. Pathao's emergence from a small firm to a company worth approximately $100 million USD demonstrates how technology-based firms provide opportunities to enter existing markets, improve infrastructure, and increase economic opportunities[2].

An essential part of understanding why technology-based entrepreneurship works is studying the ecosystem in which these companies operate. The success of companies such as Pathao is dependent not only on the capabilities of the entrepreneur but also on the environment in which the firm operates. It will take a favorable environment with access to capital, human resources, regulatory behavior, and the support of other stakeholders to lead to entrepreneurial activity. The paper uses the framework

proposed by Isenberg (2012) that identifies the interconnected domains that make up entrepreneurship ecosystems - markets, finance, human capital, policy, culture, and education [3]. The framework reinforces the idea that there are interdependencies between the six domains and the importance of an ecosystem where they are supportive of one another in terms of allowing startup companies the opportunity to be successful.

In Bangladesh's case, the entrepreneurial ecosystem has experienced various challenges, particularly poor infrastructure conditions, regulatory uncertainty, and limited funding. Nevertheless, Pathao has managed to work around the complexities of the local environment by localizing the global business models. This localization process encompassed addressing local consumer needs, establishing confidence in the digital platform, and being able to coordinate and work with local government regulators. Compared to some emerging market contexts, Pathao's success is largely attributed to its ability to leverage international models, but customized them to implement strategies appropriate for Bangladesh's unique social, cultural, and economic context [4]. This correlates to research indicating that successful entrepreneurs in emerging markets need to adapt their business models to local contexts while implementing internationally-informed practices [5] [6].

Another important part of this is the role of human capital and education in supporting technology-based entrepreneurship. Research on entrepreneurship in universities suggests that higher education institutions are fundamentally important in the rise of technology-based firms. In the case of MIT, the university was shown to be unequivocally vital to the development of entrepreneurial talent, as well as facilitating the commercialization of new technologies via spin-offs and licensing arrangements[7]. Similarly, in Bangladesh, local universities and education institutions are starting to help foster entrepreneurial talent in developing technology-based firms by providing students and entrepreneurial people with training, networks, and resources to develop and grow a technology-based startup. This paper continues with this thought by analysing how the increasing emphasis on entrepreneurship education, in turn, creates new ventures as exemplified by Pathao.

In the context of successful technology-based entrepreneurship, another factor to consider is the importance of innovation strategies. Pathao has developed a unique business model that fuses ride-sharing, logistics, and digital payment services in a single business. This model has enabled Pathao to address critical urban problems such as traffic congestion, inadequate public transport services, and a lack of appropriate access to delivery services. Pathao has built a unique digital ecosystem that brings together several services that not only improve convenience for users but also provide opportunities for micro-entrepreneurs such as drivers and delivery agents. The benefits also go well beyond running a more efficient business - Pathao's business model is focused on providing societal-wide economic benefits such as job creation, enhanced access to services, and enabling the flow of goods in an economy [5] [8].

Additionally, the paper discusses the "design-reality gap" as a common problem with technology-based entrepreneurship, mostly in emerging nations. While high-income countries have advanced technological infrastructure to support opportunistic innovation, emerging markets have barriers to new technology, including inadequate digital infrastructure, limited access to financial capital, and restrictive regulatory environments. The experiences of Pathao as a startup in the context of the techno-entrepreneurship emerging market illustrate the importance of tech-based startups in emerging markets need to not only design something that is technologically advanced but also applicable to that market context. By addressing the design-reality gap, Pathao has developed a business model that is scalable and sustainable to enable its growth and success. The overall experience of Pathao would give important insight to other similar market startups [1].

Pathao's success is also related to its ability to scale up effectively and access investment. With any tech, access to capital is a major challenge for startups across the region. Pathao was able to mitigate this challenge with well-timed relationships with local investors who understand the local context and are willing to take calculated risks in funding untested technologies. They had also developed strong relationships with government officials to mitigate the challenges of operating within an uncertain regulatory framework [8].

The results of this study indicate that technology-based entrepreneurs, like Pathao in Bangladesh, are addressing the needs of their local context and can make a noteworthy contribution to regional economic development. For operational success and sustainability of tech-based startups, there needs to be several structural reforms enacted: better digital infrastructure, access to finance, entrepreneurial culture, and better regulatory environments for innovation [10]. In addition, the findings of the research suggest that policymakers need to recognize that technology-based entrepreneurs can drive inclusive and sustainable economic growth in emerging markets that are full of opportunities and also systemic challenges [1, 3,11].

This study contributes to the growing literature about technology-based entrepreneurship by analyzing what makes startups successful in emerging markets. By looking at the case of Pathao, the study emphasizes the importance of adapting global business models to fit the local context; the value of human capital when considering entrepreneurship; and the importance of systemic reform in order to facilitate innovations and ideas. The value of the conclusions is obvious to policymakers, entrepreneurs, and investors wishing to leverage technology-based entrepreneurship for better economic development in emerging markets.

References:

1. Dahlstrand, Å.L. (2007). Technology-based entrepreneurship and regional development: The case of Sweden. European Business Review.
2. Abdullah, Likhon, Parvez, Ishtiaque(2020). PATHAO: A tech start-up that shook Bangladesh. North South Business Review, Volume 11, Number 1(11-12).
3. Isenberg, D.J. (2012). How to start an entrepreneurial revolution.Harvard Business Review.
4. Ullah, G. M. W., & Islam, A. (2017). A Case Study on Pathao: Technology-Based Solution to Dhaka's Traffic Congestion Problem. Case Studies in Business and Management. Macrothink Institute.
5. Rahman, S.A., et al. (2017). Technology acceptance among micro-entrepreneurs in a marginalized social strata: The case of social innovation in Bangladesh. Technological Forecasting & Social Change.
6. Tripathi, S. S., & Brahma, M. (2018). Technology entrepreneurship in emerging markets: An exploration of entrepreneurial models prevalent in India. Technology Innovation Management Review, 8(1).
7. Hsu, D. H., Roberts, E. B., & Eesley, C. E. (2007). Entrepreneurs from technology-based universities: Evidence from MIT. Research policy, 36(5), 768-788.
8. Priasa, M. Z. (2023). A Case Study on Pathao: Scaling Technology-Based Solutions and Social Impact in Urban Bangladesh. Journal of Management & Educational Research Innovation.
9. Karim, I. U., Khurshid, I. N., & Huq, S. N. (2018). Critical success factors of tech-based disruptive startup ecosystem in Bangladesh. Journal of Entrepreneurship and Management, 7(2), 7.
10. Audretsch, D.B., Kuratko, D.F., & Link, A.N. (2016). Dynamic entrepreneurship and technology-based innovation. Journal of Evolutionary Economics.
11. Thukral, H., et al. (2008). Innovative business models for emerging markets. Journal of Technology Management.