



University libraries as open innovation partners: Harnessing hidden potential to foster global entrepreneurship

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ABSTRACT

Universities and their libraries are well-positioned to provide a rich source of market information that can help resource-constrained start-ups to globalise their business operations. As one of the more important elements of the innovation ecosystem, knowledge-sharing can help start-ups to make data-driven, strategic decisions, rather than basing forward momentum on unreliable intuition. This column highlights the author's experience with a consultancy project that featured a university's library's support of entrepreneurial globalisation, the various implications for both start-ups as well as entrepreneurs, and lessons learned that could become the norm for more open innovation and collaboration between libraries, entrepreneurs, and their start-ups.

Introduction

Libraries have always been engaged in disseminating knowledge for the betterment of society. Businesses, especially small- and medium-sized companies, play an important role in building national economies (Gupta & Rubalcaba, 2021a), and libraries have contributed to this objective by providing support for entrepreneurial activities. The dynamic business environment and continuous technological innovation puts pressure not only on businesses, but also on libraries to keep innovating their services towards fostering entrepreneurship. Libraries can learn from the entrepreneurial mindset: there is a need for libraries to look at their offered services as an entrepreneur would in a business context — i.e., to pursue innovation for existing services. This is achieved by discovering, evaluating, and pursuing hidden opportunities that create value beyond the normal constraint of existing resources (Crumpton & Bird, 2019; Devries, 2003; Eisenmann, 2013, January 10). Entrepreneurial thinking is a pre-requisite for libraries to continuously provide value to customers (especially business entrepreneurs) by exhibiting characteristics such as opportunism, creativity, persistence, connect-the-dots thinking, and even risk-taking (Bell, 2009, November). The potential of libraries to foster business entrepreneurship is evident, especially libraries in a university setting where business incubation is pursued, and has been widely acknowledged in practice. For instance, the American Library Association (ALA) received a \$2 million grant from Google.org (a charitable wing of Google) to foster entrepreneurship by developing library entrepreneurship centres, providing support

to budding entrepreneurs (American Library Association, 2019).

Open innovation is defined in the literature as “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively” (Chesbrough & Schwartz, 2007). Open innovation involves the two-way exchange of knowledge between the firms themselves and their innovation ecosystem to foster internal innovation to achieve business objectives. Entrepreneurial libraries can serve as a hub of entrepreneurial activities and market knowledge. This makes them one of the strongest elements of the innovation ecosystem.

Start-ups must conduct continuous market research using primary and secondary sources, with primary dominating the research portfolio. One of the many downstream effects of the COVID-19 pandemic was that it ensured primary research with customers was quite limited; this forced start-ups to explore markets based on facts provided by secondary market research (GuptaFernandez-Crehuet, 2021). Secondary sources of knowledge were the major drivers for fostering entrepreneurial activities amid the coronavirus pandemic. Globalisation of business operations is one of the visions of any start-up; globalisation incurs greater market risk, and the pandemic, with its widespread and sometimes unpredictable effects, made this even more risky. The ability to make rational, data-driven decisions can help start-ups overcome the unpredictable business impacts of the pandemic; globalisation is possible, even amid the uncertainty of a pandemic, when objectivity of decision making is practiced. There are multiple cases of start-ups that managed to go international during the pandemic by performing secondary

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research. One such example is a Spanish start-up detailed below, which diversified into United States markets (GuptaFernandez-Crehuet, 2021). The major contributor to this start-up's initial success in US markets was the market insight shared by the library of one of the foreign universities located in Madrid.

There is a gap in the literature — empirical studies drawn from practical experience using libraries (pre-coronavirus as well as during the pandemic) as knowledge partners to foster entrepreneurship in small- and medium-sized companies, especially start-ups, is lacking. To bridge the gap, this column, based on practical experiences drawn from one consulting project, highlights the entrepreneurial support provided by libraries in globalising the business operations of a Spanish start-up across the US market. The practical implications for both start-ups and entrepreneurs, as well as lessons learned that could become the “new normal”, are explored.

The competencies of a startup

The Spanish start-up had an innovative technology with real applicability in the pandemic. The technology had been tested in different Spanish public laboratories, and there were already existing clients for the technology in different industries. The manufacturing was outsourced to a third party and was scalable enough to meet increase in demand. Despite this firm foundation, the start-up lacked the internal competencies to globalise its operations. The primary challenges included:

- Limited knowledge of US markets
- Tight US Federal Government regulations
- Highly unstable business environment due to the pandemic
- Limited resources as an early stage start-up.

Even with these challenges, because its product had greater demand due to the pandemic and the US market being badly impacted by the coronavirus, the Spanish start-up saw an opportunity to go global, despite the highly fluctuating market conditions and limited internal competencies. To mitigate the risks, the strategy adopted was to make careful decisions based on market facts shared by the open innovation ecosystem, with academia being the main partner providing these informational elements (Gupta et al., n.d.). With the involvement of faculty from a leading US university, the start-up harnessed the resources provided by academia — including the strong professional network of the university library.

Library support to foster globalisation

It is widely acknowledged that many university libraries have added another element to their mission – to support entrepreneurial activities. In addition to the usual resources and services, their premises are often used to conceptualise and commercialise business ideas. The entrepreneurial activities arising from academic libraries are not short-term. Continuous interaction and support from entrepreneurial libraries is necessary, as successful commercialisation involves different activities, including: ideation, problem/solution fit, product/market fit, etc. (Gupta & Rubalcaba, 2021b). The support rendered by the university library to the Spanish start-up during the pandemic highlights libraries' capabilities in acting as one of the strongest open innovation pillars in the most difficult of times. The library was a hub for innovation not only by providing rich access to tools, working space, and expertise, but also in numerous other ways:

- Foreshocks:** Librarians provided the start-up with regulatory information that was absolutely essential — specifically that the manufacturer of the product should be United States Environmental Protection Agency (EPA) compliant. The existing manufacturer was not EPA-compliant, which made export to the US near impossible.

The start-up then immediately explored other Spanish manufacturers on an EPA-approved list that would have the competency to manufacture the product. Foreshocks precede an earthquake: they offer a warning and, sometimes, ability to prepare. This information provided by the library was a kind of foreshock, giving the start-up a warning signal before decisions were made that could have proved fatal for the business. Start-ups, when expanding to a new country, often lack appropriate legal and regulatory information that could prove costly for their survival in that market.

- Reduction in market research efforts:** Start-ups often do not have resources to be deployed for rigorous market research. The library saved time and effort by providing the start-up with an initial customer list (early adopters) who might be interested in purchasing the product. The list was based on the knowledge and experience of the librarian, who was a US citizen working in Madrid. This librarian not only had great understanding of the customer populations that would have the greatest need for the product, but also a good professional network for soliciting more information about the market. The initial list provided a source of further information about customer populations that would have good product/market fit. Their referrals were further explored, and a promising market with high paying capacity was identified for the start-up. This saved effort that would otherwise be expended to identify a customer base with the need for the product.
- Globalised network of entrepreneurial libraries:** Academia embraces economic and social missions, the objective being to contribute to the betterment of society (Compagnucci & Spigarelli, 2020). While it is not always the case, academia can often be counted on to espouse the principle of social benefit as its own reward, rather than expecting a financial return for invested effort. Entrepreneurial libraries, for instance, count it a privilege to contribute to the nation's economy by providing support for entrepreneurial activities; thus, their service is offered with little or no charge. This universal affordability virtually connects all entrepreneurial libraries together into a single hub for fostering innovation and supporting entrepreneurial activities. The Spanish start-up got rich access to the entrepreneurial libraries in proximity to the university library based in Madrid, helping it to glean “local market” information that would otherwise not have been possible through secondary research.
- Increase in branding:** Early stage start-ups can find it difficult to target due to branding issues. Without brand recognition, customers may not be motivated to try the product of start-ups that are competing with market giants. The support of the entrepreneurial libraries in market research and making customer segments accessible helps start-ups to gain from the library's established brand. This was evident for the Spanish start-up when it first approached a few customers through LinkedIn; the response was negligible. Yet when the start-up approached customers based on referrals provided by the library, the customers showed more trust in the start-up, and they expressed agreement to participate in further marketing activities. The increased interest resulted in a greater number of referrals, which finally led to the creation of a strong network of potential customers for the start-up. The brand name associated with the library created a network of customers for the start-up.
- Demand validation and competitor positioning:** The start-up, through its rich professional network of entrepreneurial libraries and local customers, identified the features as well as price of its competitors in US markets. The competitor could be identified through secondary market research, such as using the Google Ads preview tool, but results appear only for those businesses that have engaged in search engine marketing activities. There are numerous local businesses that do not have websites or perform search engine marketing due to resource limitations. This impacted the marketing efforts of the Spanish start-up. Entrepreneurial libraries provided meaningful information to the start-up, helping it to position itself with respect to the competitors, formulate strategy in the US (price-

based, value-based or blue ocean – i.e., wide open) and choose suitable marketing tactical actions. This also helped the start-up to identify the customers of competitors who have a higher probability of switching to the Spanish start-up product.

Implications for entrepreneurial libraries

Entrepreneurial libraries have great potential to foster innovation in start-ups in normal as well as turbulent times. They can be a source of rich market information, helping start-ups to make rational business decisions. The library/start-up partnership is a long-term marriage with each partner providing benefit to the other. On one side, start-ups can leverage resources scattered across the virtual global connections of the entrepreneurial libraries, while on the other, these libraries can gain further competencies by working closely with start-ups. Every start-up has a unique working context and business situation. Entrepreneurial libraries and business start-ups may use different terminologies – different languages, so to speak, which complicates communication. Thus, it is important for both partners to work closely to learn from each other and apply what they have learned in specific contexts. The global chain of entrepreneurial libraries provides ample opportunities to the start-up community to learn context in a variety of situations and use these new competencies to globalise their business operations.

Entrepreneurial libraries can increase their entrepreneurial and consulting skills by learning from each start-up as a unique case. The experience gained can be meaningful and applicable across other start-ups. The globalisation of business operations is an opportunity to grow libraries' presence across the globe. The minimal fees charged by entrepreneurial libraries, inexpensive as they are, could still be a problem for some small companies to afford in their initial business cycles. One idea to consider is that of exchange – the possibility of services offered in exchange for equity shares. These shares could then financially support the improvement of entrepreneurial facilities in the library – access to more tools, library staff training, etc. The benefit of such an exchange would be its guarantee that public resources were not being expended on start-ups.

Implications for entrepreneurs

Entrepreneurs can obtain exceptional support from libraries, but they should understand that terminology differences exist between the business and library worlds, which can complicate knowledge exchange. It is the responsibility of the entrepreneur to convey need in terms libraries can understand. Ideas include the use of storytelling or prototypes to explain the business context, business problem, and other business-related aspects that are meaningful for the start-up's globalisation goals. Technical start-ups have excellent technical competencies such as open-source tools, technical infrastructure, etc. This could be transferred or certain usages offered to the library, leading to library innovation which could then result in better services to the entrepreneurs. In other words, promoting business is one objective, but the relationship should be mutually beneficial. A second objective should include the improvement of entrepreneurial libraries. As just once example, some libraries found it hard to transform to online work during the pandemic due to internet speed, lack of digital skills, and the digital divide (Rafiq et al., 2021). Technical start-ups can help improve such situations, an improvement required to leverage libraries' entrepreneurial potential in a pandemic.

A future vision for a new normal

The pandemic made it difficult for some libraries to make a smooth transition to online services and work platforms. Yet at the same time, the pandemic funnelled the business community to the diverse online secondary research resources available via libraries. In the name of societal responsibility in a crisis, many publishers (such as Elsevier) and consulting groups (e.g., Deloitte and KPMG) provided rich market information to the business community at little or no cost. Yet the increased availability of secondary data sources was an opportunity for the start-ups that required the expertise of the librarians to be fully realized. These new sources allowed start-ups to make strategic decisions in the absence of physical meetings with customers for market research. The entrepreneurial library's proximity to peer libraries helped to gather local market information without the need for face-to-face meetings with potential customers in other, foreign markets. This emphasises the potential of blended use of primary and secondary research for globalisation of business operations – how the efforts of entrepreneurial libraries as innovation partners significantly benefitted start-ups, decreasing their cost and resource expenditure. With increasing expertise in online technologies and good access to secondary market data, the entrepreneurial practices undertaken during the pandemic, by both libraries and start-ups, should be the new normal going forward.

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