THE ROLE OF SUPPORT ORGANIZATIONS IN BAHRAIN IN ENHANCING NASCENT TECHPRENEURIAL GROWTH AND INNOVATION; A MULTIPLE-CASE STUDY ANALYSIS OF INNOVATIVE BAHRAINI TECH-STARTUPS

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ABSTRACT

Governments worldwide are desperately trying to create the optimal ecosystems for tech start-ups to establish and flourish. At the same time, young people perceive tech start-ups as a quick gateway to unimaginable riches and financial prosperity.

Bahrain's government is pursuing a similar strategy by launching several initiatives and backing the establishment of several support organizations, including incubators and accelerators, to motivate technology-based start-ups to grow, prosper and thrive. Despite this, nascent inexperienced techpreneurs in Bahrain do not seem to fully benefit from the various support programs available. This could be due to the lack of clarity and awareness of the role of incubators and accelerators in enhancing techpreneurial growth and assisting these inexperienced techpreneurs with their limited business experience.

This paper examines the offerings available to nascent techprenuers by the various support organizations and compares them with the essential success factors for tech start-ups globally. The research attempts to identify the key gaps that may be holding back some techpreneurs' success in Bahrain and suggests international best practices to address this problem.

The research qualitatively investigates multiple case studies of innovative Bahraini digital applications in an attempt to explore the role of support organizations in their establishment and growth. In addition, eleven support organizations in Bahrain are interviewed to understand better how they run their programs and comprehend the recurring challenges they face. This paper provides techpreneurs with guidelines on the optimal benefits they can extract from support originations and provides incubators and accelerators with recommendations to maximize their role in the tech start up ecosystem in Bahrain.

Keywords: Innovation, Techpreneurial, Incubators, Accelerators, Digital Applications

INTRODUCTION AND RATIONALE OF THE STUDY

With the proliferation of tech startups in recent years and the constant growth of the techpreneurial ecosystem, new support organizations such as incubators, accelerators, public and

private funding bodies became crucial players in this industry. Business incubation and acceleration became an essential economic development tool designed to help nascent techpreneurs and emerging startups succeed and maximize their growth potential (Madaleno et al., 2018). Following the lead of their global counterparts, many startups in the Kingdom of Bahrain developed mobile apps to scale their operations, increase engagement, and maximize their outreach. This has led to unprecedented progress in the mobile app industry, which has, in turn, necessitated the presence of support programs that focus on innovative app development.

Bahrain's interest in supporting tech startups coincides with its shift from being a traditional oil economy to a modern state with diversified sources of income (Bahrain Human Development Report, 2018 & Al Sahaf & Al Tahoo, 2021). The Kingdom is trying to establish the ideal ecosystem to support the growth of local techpreneurs and attract regional and international tech startups (Almajdoub, 2018; Galpin, 2018).

The ultimate aim is to expand the economic base in Bahrain by transforming potentially successful ideas into promising economic projects. Accordingly, it has established a number of institutional frameworks that are conducive to startups. The frameworks include government-funded initiatives, quasi-government programs, and advisory support services led by the private sector (Oxford Business Group, 2020).

Despite, the various initiatives that the government has led, Bahrain have a limited number of tech startups that have achieved economic success (Wamda, 2018).

This paper, therefore, examines the challenges faced by technopreneurs in Bahrain and possible factors that may contribute to their success. This study explores the relationship between support organizations and techpreneurs and the challenges both parties face as they work together. The research also sheds light on the correlation between various personal attributes and skills of techprenuers – such as age and educational background – and the success of their startups.

There are no scientific studies that examine the key factors that lead to the success of nascent techpreneurs in Bahrain and the leading causes of their failure. In addition, there is a lack of studies that provide techpreneurs with specific guidance and recommendations on how to manage the various stages of developing their startup from the conceptualization stage to the minimum viable product (MVP) stage to later stages. This paper investigates the factors and issues mentioned above in an attempt to explore the role of support organizations in the tech start-up ecosystem in Bahrain. In the first section, the paper presents a general introductory overview of the key concepts discussed in the subsequent sections and the research problem, questions, objectives, and methodology.

The second section situates the topic in the context of previous research and relevant literature related to successful global practices and initiatives. It explores critical success factors of technopreneurship in the app development industry. The third section presents the results of the interviews with eleven support organizations in Bahrain to evaluate their role in assisting nascent techpreneurs' app development endeavors and in promoting the growth of tech startups in Bahrain. The fourth section comprises a multiple-case study analysis of five innovative Bahraini digital apps and explores their developers' perceptions of techpreneurship challenges and opportunities. The last section concludes and presents recommendations in an attempt to lay the ground for future directions for techpreneurship research in Bahrain.

Research Problem

Despite the presence of many support organizations (such as incubators and accelerators), there is a mismatch between techpreneurs' expectations and the offerings of support organizations. Some nascent techpreneurs do not have clear guidance on the steps to take to commercialize their apps after developing them. The fact that many incubators and accelerators in Bahrain are startup businesses that are dealing with their own set of challenges, especially since the Covid-19 pandemic began, adds another degree of complexity to the situation. Nascent Techpreneurs in Bahrain suffer from apparent limitations such as shortage of capital, legal difficulties, and lack of adequate information.

Research Questions

This research attempts to find answers to the following questions through conducting semi-structured interviews with a number of emerging techpreneurs in the field of digital apps and officials at support organizations:

1) What kind of support do existing support organizations offer to nascent techpreneurs?
2) What are the challenges faced by nascent techpreneurs and by support organizations in Bahrain?
3) What factors affect the success or failure of tech startups in Bahrain?
4) Where does Bahrain stand on digital adoption and techpreneurial development and support of apps compared with other regions and countries around the world?
5) What are the services and guidelines provided for nascent techprenerus in order to guide them on how to commercialize their apps after they develop them?

Research Objectives

1) To explore the role of support organizations in the tech start-up ecosystem in Bahrain
2) To increase the pool of nascent techpreneurs and guide their innovative endeavors and support their growth
3) To investigate the challenges faced by nascent techpreneurs in Bahrain
4) To investigate the challenges faced by accelerators and incubators in Bahrain
5) To identify the best practices and key success factors of digital app technopreneurship

Research Methodology and Approach

This study uses the qualitative method, which Lowder (1998) believes to be the best research methodology for studying entrepreneurial success factors. According to him, and several other researchers, the qualitative method "[…] provides a better opportunity for the researcher to develop substantial research conclusions based on real-world entrepreneurial experiences (Clark, 1998; Conger, 1998; Huberman & Miles, 1994; Morgan & Smircich, 1980; Munck, 1998)." (Lowder, 1998)

The study mainly employed a multiple qualitative case study approach, which involved the selection of five tech startup cases with varying development stages (Table 1). The primary data collection method was semi-structured interviews that were conducted with the founders or decision-makers in these startups. These interviews involved open-ended questions; each interview lasted for one hour and was transcribed for further investigation and analysis. The data analysis was based on a multiple-case analysis approach; Within-case study was first conducted before a cross-case comparison and analysis, which involved examining the different kinds of support obtained by the startups from support organisations. The success and failure factors,

challenges, features, services, management, and marketing approaches across cases were also identified, compared, and contrasted.

Table 1 PROFILES OF THE SELECTED TECH STARTUPS FOR THE CASE STUDIES IN THIS RESEARCH				
Name of Startup	Domain/Services	Date Founded	Founders	Current Stage
Akalati	Food and Catering	February 2018	Abdulla Al-Aradi	Pre-Seed
Skiplino	Queue management system	August 2015	Zaman AH. Zaman	Series A
Malaeb	Booking stadiums	May 2016	Yasser Abdel Aziz & Ahmed Al Rawi	Seed
Nural	Project management and due date automation	March 2018	Hamad Fuad	Seed
Al Rawi	Audiobooks	November 2017	Hala Sulaiman, Mohammed Ebrahim & Ameera Al Qubaiti	Seed

As parts of this research methodology, the following research activities have been carried out: literature review on global and local support organizations, case studies of five Bahraini tech startups, semi-structured interviews with eleven out of twenty-five support organizations in Bahrain that are most active in providing various support initiatives and services.   These activities are presented in the rest of this paper.

LITERATURE REVIEW

Worldwide Review of the Role of Support Organisations in Supporting Nascent Techpreneurs

Nowadays, business incubators and accelerators stimulate the incubation of techpreneurs and their ideas and transform them into pioneering projects by bringing them to life. They achieve this through the adoption of their innovative start-up ideas and directing them toward a path that matches their objectives and skills. Studies indicate that small businesses and startups play a pivotal role in economic growth and creating market dynamism. Breschi et al. believe that "Start-ups may be more effective in exploiting new technologies and introducing radical innovations, which can help some of the major challenges" (Breschi et al., 2018). Their role is also crucial in job creation. Small businesses also have a great capacity to support competition, which improves the quality of products and services.

According to Klofsten et al. (2016), in the mid of 1960s, some incubators started to emerge in the European countries. During the 1970s, a measured acceleration occurred in the United States through a particular initiative to encourage and institutionalize the process of assessing and commercializing technical inventions (Temali & Campbell, 1984). In the 1980s, the model spread and the National Business Incubation Association (NBIA) was created. It is now the world's most extensive network operating in the incubation trades and aims to continually enhance their assistance (Temali & Campbell, 1984). Furthermore, the years 1985 to 1995 witnessed the development of incubator-type support systems with worldwide deployments (Albert et al., 2002).

Business incubators are a facility that is connected to a university, a research institution or stands on its own (Fouad et al., 2019). It provides support and services for newly established firms at the very early stage. The main aim is to give the new firms the best possible conditions for their survival and growth. There are two types of incubators. Technology incubators alongside science parks and technopoles are focused on technology start-ups. Business incubators tend to incorporate all types of firms and usually do not have that focus on new technology firms. Chris et al. stated, "Incubation of technology-based start-ups has received considerable attention from policymakers and business people for its promise to contribute to technology transfer and entrepreneurship" (Eveleens et al., 2017).

The concept of the incubator as we know it in innovation and entrepreneurship came to existence in 1959 in the USA when Joseph Mancuso opened the Batavia Industrial Centre at Batavia, New York (Olayiwola, 2019). Hausberg and Korreck (2020) define Business Incubators as "business-incubating organizations that support the establishment and growth of new businesses with tangible (e.g., space, shared equipment and administrative services) and intangible (e.g., knowledge, network access) resources during a flexible period and are funded by a sponsor (e.g., government or corporation) and/or fund themselves taking rent (or less frequently equity) from incubatees".

The focus on young business leaders has become a subject that cannot be ignored because of its close association with economic growth. This is clarified by Zølner (2021), who stated that entrepreneurs and small businesses have an essential role to play in economic growth and development. Hossain et al. (2018) accentuated the role of business incubators in supporting small and medium businesses, which led to a positive change in the global economy. They argued that changes in the global economy, combined with accelerated technological advancements, necessitate the need for accelerated business policies that aid in the improvement of a country's, community's, and region's economic development by incorporating business incubator programs into economic policies to bring about transformation in the business and financial sectors. Furthermore, Xiao and North (2018) stated that "Technological Business Incubators have become an accepted catalytic instrument of economic development, providing a range of business resources and services to nurture and support the growth of new technology-based ventures".

The Annual Report on European SMEs 2018/2019 issued by the European Commission lists the reasons for the transformation of small businesses and startups into a significant driver in the new global economic landscape (Luxembourg CARSA DIW Econ Europe Authors et al., 2018). Among these reasons are the significant shift from manufacturing to services, the great diversity of startups activities and their awareness of changing consumer needs, and the technological development that allows the creation of innovative projects (Luxembourg CARSA DIW Econ Europe Authors et al., 2018).

Entrepreneurs and new venture creators face many challenges and high rates of failure, and accordingly, they need support from supporting organizations to ensure the continuity of these companies. During crises, such as Covid-19, the challenges facing these companies increase, as does the role of support organizations. There is no doubt that the world has significantly changed after it has encountered the spread of coronavirus (Covid-19) in early 2020 (Parnell et al., 2020). The rapid coronavirus outbreak presented a significant economic impact globally, and entrepreneurship was also affected by the pandemic implications, as entrepreneurs started experiencing a lot of changes in their workflow (Ratten, 2020). Startups and new businesses were negatively affected and threatened by the Covid-19 outbreak. (Alessa et al.,

2021; Ionescu-Somers & Tarnawa, 2020). It is essential to consider all these implications while examining the challenges faced by nascent techpreneurs and support organizations in Bahrain and the rest of the world.

According to the recent OECD Report, 2019 and the beginning of 2020 witnessed a remarkable economic downturn that did not exclude even countries with advanced economies. Growth rates and GDP continued to decline. The Corona crisis has also deepened and exacerbated this decline;

"The spread of the coronavirus (COVID-19) is sounding a major alarm bell for growth prospects and significantly raises the probability of the cyclical downturn becoming more severe. Global GDP forecasts will be revised downwards, possibly turning negative, with businesses facing shocks in both supply and demand." (OECD, 2020)

A study conducted during the pandemic in 2020 by Stephan et al. (2021) surveyed over 5,000 entrepreneurs in 23 countries that represent 75% of the world's economic output. The findings of the study revealed that most entrepreneurs faced significant challenges threatening the survival of their businesses. It found that 61% of entrepreneurs saw their business under threat due to a substantial decrease in trading activities (Stephan et al., 2021). Nevertheless, entrepreneurs demonstrated adaptive behaviors in confronting the crisis, starting from shifting to online platforms and digitizing their businesses to exploring new opportunities and optimizing government support (Alessa et al., 2021). The Covid-19 crisis was a new alert for new companies to test their resiliency, and it was a stimulus to the startup's adaption of new technologies in various sectors. Digital platforms and associated ecosystems offer "a promising new environment and potential context for entrepreneurship; it also provides value creation and value appropriation infrastructure for entrepreneurs and their companies" (Nambisan & Baron, 2021).

Local Review of the Role of Support Organizations in Supporting Nascent Techpreneurs

The Kingdom of Bahrain attaches great importance to the SMEs sector and entrepreneurship, which is an urgent priority in the government's work program (Nasir et al., 2020). The Ministry of Industry, Commerce, and Tourism has been entrusted with overseeing this sector and following up on its developments.

The concept of business incubators in Bahrain emerged in the mid-1990s and was intended to provide an integrated environment of location, facilities, and services to facilitate access to enterprises affiliated with these incubators (Qambar, 2018).

According to the website of the Ministry of Industry, Commerce, and Tourism (www.moic.gov.bh/en/tiles/entrepreneurs/initiatives), the types of support provided by business incubators and accelerators include common work areas, guidance, mentoring, marketing, business planning, financial, and public relations. These services are provided for specific incubation periods. By referring to (startupbahrain.com), to date, more than 34 incubators and business accelerators have been co-working with government entities to support nascent business startups (Table 2).

Table 2
A LIST OF ACCELERATORS AND INCUBATORS IN BAHRAIN AND A SUMMARY OF THE SERVICES THEY PROVIDE

Commercial Name	Registration Date	Activity & Services List
Prime Incubator	19/09/2017	• Office administrative and support activities - Business Incubators and Accelerators
Fakhro Properties Company S.P.C	11/05/2008	• Office administrative and support activities - Business Incubators and Accelerators • Selling and buying shares and securities for the company's account only • Trading on a fee or contract basis • Real estate activities with own or leased property
Spire Hub W.L.L	12/06/2017	• Office administrative and support activities - Business Incubators and Accelerators • Food and beverage service activities
The French Chamber of Commerce and Industry in Bahrain	06/01/2015	• Office administrative and support activities - Business Incubators and Accelerators • Activities of head offices or Management Offices
Corporate Hub W.L.L	09/06/2015	• Other business support service activities • Office administrative and support activities - Business Incubators and Accelerators • Management consultancy activities • Sale/Trade of Food and Beverages • Publishing of books, periodicals, and other publishing activities - Office Printing Services • Real estate activities with own or leased property • Food and beverage service activities
Kaplan S.P.C owned by Saima Salahuddin	01/12/2015	• Computer programming activities • Office administrative and support activities - Business Incubators and Accelerators • Management consultancy activities • Accounting, bookkeeping and auditing activities; tax consultancy - Accounting, bookkeeping -tax consultancy - Accounting Consultants • Computer Consultancy and computer facilities management activities • Activities of head offices or Management Offices
Flat6Labs Bahrain WLL	13/04/2016	• Office administrative and support activities - Business Incubators and Accelerators • Management consultancy activities • Activities of head offices or Management Offices • Design of Training Programs
Bahrain fashion incubator spc	17/10/2016	• Office administrative and support activities - Business Incubators and Accelerators
Brinc Mena w.l.l	23/01/2017	• Office administrative and support activities - Business Incubators

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Commercial Name	Registration Date	Activity & Services List
		• and Accelerators • Management consultancy activities • Selling and buying shares and securities for the company's account only
MAZ Business Development S.P.C.	23/03/2017	• Personal Events Planners • Office administrative and support activities - Business Incubators and Accelerators • Other Marketing/ Promotion Activities • Sale/Trade of Food and Beverages • Other education • Service activities related to printing • Food and beverage service activities • Publicity and Advertising
Aser Alawlamah Business Services W.L.L	17/04/2017	• Other business support service activities • Office administrative and support activities - Business Incubators and Accelerators
ACT PRO for Consultancy and Business Services SPC	08/05/2017	• Office administrative and support activities - Business Incubators and Accelerators
Mauna Entrepreneurs Support S P C	11/05/2017	• Office administrative and support activities - Business Incubators and Accelerators
Financial Technology Management Solutions W.L.L.	18/05/2017	• Office administrative and support activities - Business Incubators and Accelerators • Management consultancy activities • Activities of head offices or Management Offices
Route De La Soie Real Estate Activities and Business Support WLL	04/06/2017	• Other business support service activities • Office administrative and support activities - Business Incubators and Accelerators • Real estate activities on a fee or contract basis - brokerage in Real estate • Real estate activities with own or leased property • Real estate activities on a fee or contract basis - Management of Real estate • Translation and interpretation
Startup Hub S.P.C.	05/06/2017	• Office administrative and support activities - Business Incubators and Accelerators
Business and Clinical Advisory S.P.C	19/06/2017	• Sale/Trade in other machinery and equipment and parts • Office administrative and support activities - Business Incubators and Accelerators

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Commercial Name	Registration Date	Activity & Services List
		• Offices for the coordination of medical treatments • Management consultancy activities • Public Relations • Real estate activities with own or leased property • Activities of head offices or Management Offices • Real estate activities on a fee or contract basis - Management of Real estate • Publicity and Advertising • General Trade • Office administrative and support activities - Office administrative and support activities
Alwane Center for Development Small & Medium Enterprises W L L	02/07/2017	• Office administrative and support activities - Business Incubators and Accelerators • Office administrative and support activities - Office administrative and support activities
Gulf Gate Medical Complex W L L	03/07/2017	• Office administrative and support activities - Business Incubators and Accelerators • Office administrative and support activities - Office administrative and support activities
Prosky Business Incubator W.L.L	18/07/2017	• Office administrative and support activities - Business Incubators and Accelerators
Bahrain Gate for Supporting Small and Medium Enterprises W.L.L	17/08/2017	• Office administrative and support activities - Business Incubators and Accelerators • Office administrative and support activities - Office administrative and support activities
Impact Business Incubators and Accelerators S.P.C	20/08/2017	• Office administrative and support activities - Business Incubators and Accelerators
Shahico Business Center WLL	20/08/2017	• Office administrative and support activities - Business Incubators and Accelerators • Activities of head offices or Management Offices
Eduroots for educational consulting s.p.c	28/08/2017	• Office administrative and support activities - Business Incubators and Accelerators • Other Marketing/ Promotion Activities • Educational support activities • Other education • Publicity and Advertising • Design of Training Programs • Organization of conventions, events, and trade shows
Uni Concept For Business Solutions	09/10/2017	• Other business support service activities • Office administrative and support activities - Business Incubators

Commercial Name	Registration Date	Activity & Services List
CO. W.L.L		and Accelerators
Alenizi Office Administrative & Support Activities S.P.C	24/10/2017	• Office administrative and support activities - Business Incubators and Accelerators
KickStart Bahrain WLL	25/10/2017	• Office administrative and support activities - Business Incubators and Accelerators
Colab w.l.l.	01/11/2017	• Office administrative and support activities - Business Incubators and Accelerators • Food and beverage service activities
Alnazaha Business Support Services W.L.L.	09/11/2017	• Office administrative and support activities - Business Incubators and Accelerators
Keepers Business Solutions CO. W.L.L	17/11/2017	• Office administrative and support activities - Business Incubators and Accelerators
The braver Business Development center W.L.L	12/02/2018	• Office administrative and support activities - Business Incubators and Accelerators • Real estate activities with own or leased property
Al Worood Offices Management Owned By Sara Ouard	16/02/2018	• Office administrative and support activities - Business Incubators and Accelerators
AnSa Accounting and Business Support Services WLL	14/03/2018	• Office administrative and support activities - Business Incubators and Accelerators • Accounting, bookkeeping and auditing activities; tax consultancy - Accounting, bookkeeping - tax consultancy - Booking-keeping / Accounting firms • Management consultancy activities • Activities of head offices or Management Offices
Ginnova Global Innovations Company W.L.L	03/07/2018	• Office administrative and support activities - Business Incubators and Accelerators • Management consultancy activities • Other professional, scientific, and technical activities
Classic Incubators Co WLL	02/09/2018	• Office administrative and support activities - Business Incubators and Accelerators

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Commercial Name	Registration Date	Activity & Services List
Entrepreneur Builders Co. W.L.L.	25/09/2018	• Office administrative and support activities - Business Incubators and Accelerators
CWK W.L.L.	11/10/2018	• Office administrative and support activities - Business Incubators and Accelerators • Real estate activities with own or leased property • Other professional, scientific, and technical activities • Real estate activities on a fee or contract basis - Management of Real estate
Brilliant Lab W.L.L	01/11/2018	• Office administrative and support activities - Business Incubators and Accelerators
Incubed for Business Incubators and Accelerators W.L.L	21/11/2018	• Office administrative and support activities - Business Incubators and Accelerators
I Start Co. W.L.L.	10/12/2018	• Office administrative and support activities - Business Incubators and Accelerators

By referring to the Global Startup Ecosystem Report (2018) "Bahrain's keenness in enhancing its startup ecosystem comes in line with Bahrain's 2030 Economic Vision. Bahrain today is an attractive hub for leading international and local startups to build a robust ecosystem and pave the way for the emergence of new sub-sectors such as Fintech Cloud Computing and Gaming". Moreover, The Global Startup Ecosystem Report (2018) indicates that "Bahrain may be the smallest country in the Gulf region. Yet it indicates strong entrepreneurial potential. As much as 70% of young Bahrainis are interested in the idea of starting their own business. According to EY Bahrain is ranked as the second in the MENA region in the ease of doing business index".

Organizations such as incubators and accelerators play a vital role in the development of different economies such as Bahrain where the infrastructure and economic strategies aim to develop small and medium enterprises (Almajdoub, 2018).

Tech-startups are growing massively and rapidly around the world, and as a result of their large contribution to the expansion of the economies, governments around the world are supporting them financially, educationally, and by providing them with any needed resources (Peter et al., 2018). In general, Bahrain has an attractive environment for young and passionate entrepreneurs, whether they are Bahrainis or not. This section aims to clarify the role of supporting organizations in Bahrain and how they provide their assistance to nascent tech-startups.

A prime example of supporting organizations in Bahrain is Brinc Batelco IoT (internet of things) Hub which is the first IoT hardware accelerator in Bahrain. They bring together a

connected community to be inspired, learn, and grow, to ideate, collaborate, and accelerate in a high-tech creative space. Other examples include Bahrain Chamber of Commerce and Industry, Business Incubator Center, Bahrain FinTech Bay, Tamkeen, etc.

Starting a business in Bahrain is facilitated by many factors and in most cases leads to substantial benefits for both, the economy and the entrepreneur. Recently, techpreneurs are pervading the market, and most incubators prefer to support this type of business as it is the most preferred by the customers due to its high profits (Al-Ammal & Aljawder, 2021).

During the current Covid-19 pandemic, Bahrain has demonstrated prompt actions to support start-ups that were affected by the economic repercussions caused by the Covid-19 outbreak. According to the Global Start-up Ecosystem Report in 2020, Bahrain is recognized as one of the world's top five fastest-growing ecosystems with fewer than 1000 start-ups. The report- which tracks performance, funding, experience, talent, market research, connectedness, and knowledge – included an assessment of how the markets responded to the global Coronavirus outbreak (The Global Startup Ecosystem Report GSER, 2020). Local start-ups in Bahrain also demonstrated and played an active role during the crisis. They provided free services for Bahraini entities such as government agencies, medical centers, and hospitals. For instance, GetBaqala and Weyak, which are both Bahrain-based apps, have been delivering medicine and pharmaceuticals direct to customers to help maintain the social distancing rules. Similarly, Skiplino app, which is a Bahraini queue management platform, has integrated its technology with Italian hospitals and UK supermarkets (EDB Bahrain, 2020). The following section explores and analyzes more data about prominent tech-startups in Bahrain and examines their success factors and endeavors.

RESEARCH RESULTS

Case Studies

Case 1: Al Rawi:

Al Rawi is an interactive platform that offers books in an audio format. It was officially established in December 2016 (Figure 1) (Table 3). It aims to encourage the readership of Arabic language books by making these books easily accessible to people around the world. The App is owned and managed by Hala Sulaiman, Ameera AlQubaiti, and Mohamed Ebrahim who bring together a cumulative experience of 40 years in strategy, management, media, finance, and technology. They work with a team specialised in proofreading and studio engineering and a network of narrators to create an accessible digital library of audiobooks. Hala Sulaiman is a specialist in Marketing, Communication, and Leadership, and she is responsible for communication planning, and building external partnerships that help enable and promote the project and services offered. Mohammed Ebrahim is a specialist in IT and Business, and he is responsible for creating clarity on the future direction and strategic differentiation and for maintaining the relationship with the IT partners and overseeing design and implementation. Ameera Al Qubaiti is a specialist in Finance and Administration, and she is responsible for scheduling and overseeing content development and the alignment between different stakeholders. She is also in charge of supplier relationships and control over financial spending as per the budgets, and for communication and engagement with Al Rawi customers. The team also consists of two proofreaders who are responsible for ensuring proper Arabic languages, reviewing narrators' recording in real-time, and normalizing the recordings afterward.

FIGURE 1
THE LOGO AND SCREENSHOTS OF THE INTERFACE OF AL RAWI APP

According to Hala Sulaiman, "reading has been instrumental to the rise and flourishing civilizations. Unfortunately, readership in the Arab-majority countries is amongst the lowest in the world." Sulaiman believes that while information technology has added value and advanced education in the western world, it has not been utilized at the same pace in the Arab World. She stated that "the advanced mobile technology and fast-paced social media updates have made it more difficult to find time to read." She also stated that in addition to the low readership, other challenges face the publishing industry including content challenges, distribution challenges, and legal challenges due to censorship and lack of reinforcement to copyright laws.

Al Rawi won a number of awards during a record period, including the Mohammed Bin Rashid Al Maktoum Youth Award as the "Best Emerging Project" in the Arab world in January 2018. The application represented the Kingdom of Bahrain in the "Rouad Al Qasr" Of the Duke of York Prince Andrew in the field of technology and innovation, which was held in October 2018 in Abu Dhabi, United Arab Emirates. The application was also chosen to represent the Kingdom of Bahrain in the AIM start-up for emerging technology and sustainable development organizations in Dubai, United Arab Emirates. It also won second place in the competition "Face-Off", which was held within the UNBOUND Bahrain for pioneers of technology and innovation.

The trial version of the App was launched in June 2017. In November 2017, the Sharjah International Book Fair was officially inaugurated with more than 330 books added weekly and 170 narrators from Bahrain and Gulf countries, Algeria, Egypt, Syria, and Jordan. With the inclusion of exclusive book deals and short translations of global books, the application has been installed by 35,000 users, including 13,000 active users.

Table 3 AL RAWI APP INFORMATION	
Al Rawi App	
Founded Date	Dec 12, 2018.
Founders	Hala Ahmed Sulaiman, Mohammed Ebrahim, and Ameera Al Qubaiti
Funding Status	Non-equity Assistance
Last Funding Type	Non-equity Assistance
Number of Employees	6
IPO Status	Private
Investors	Pitch@Palace
Monthly Downloads	1,797

The mission of Al Rawi managers is to provide accessibility to books and cultural content to improve the readership of books in the Arab world by creating the largest interactive audiobook library in Arabic. Not only does this increase awareness and improves knowledge, but it also enables people to maximize the use of their time while driving and moving around by listening to useful content. They believe that with the right tools, content, and right partnerships, they could create a cultural shift. To achieve this, they aim to create an e-community via two platforms: First, a platform that enables the conversion of print material into a combination of audiobooks and interactive audiobooks. This will involve matchmaking of authors, narrators, artists, and studios. Second, a mobile application and website that enables people to set their reading goals, listen to books, and engage with authors and readers.

Al Rawi is supported by Tamkeen's "Private Enterprise Support Program". Tamkeen is a government entity that provides mentorship, coaching, networking guidance as well as direct/indirect financial support to entrepreneurs. Al Rawi also received support from Ithmaar Bank, which published a book on their platform that covers Islamic banking fatwas.

Al Rawi team designed their app in-house and is working with developers to continuously maintain it and develop it further. Sulaiman thinks that the success of tech apps depends a lot on design and simplicity. She also thinks that "creativity must not just be limited to the design but must also be in the solution that the app is offering to solve the problem and how it is executed".

Some startups may experience failure despite the support they get. Sulaiman thinks that it depends on a lot of factors, such as the market, the stage of the launch, the marketing efforts. Sulaiman thinks that all entrepreneurs are scared of failure but it is worth trying and failing rather than not trying at all. There are some things which Sulaiman and her partners are planning to ensure applying in their future work in this field, including continuously reviewing their business plan and strategy and carrying out focus groups and phone interviews with sample sizes to understand their customers more. They will also monitor their app reviews and work to ensure customer and user satisfaction.

The main challenge that Sulaiman faced was to convince people of the audio product and the process was not as easy as she described it. The second challenge was how to convince people to buy and pay cash for using the application. Marketing methods were concentrated through participating in exhibitions and conferences seminars, public relations, and media interviews.

When asked about their financial and marketing plan (Figure 2), Sulaiman stated, "our main sales and marketing objective is to ensure we achieve the number of followers and

subscriptions needed to achieve the required number of downloads, to achieve profitability". She listed the following unique selling points for Al Rawi:

1. Wide-availability: Network of studios allowing large physical coverage for narrators and authors with a large selection of narrator voices.
2. Content-selection: The managers aim to expedite content development and thus provide more content than any other provider.
3. Multi-currency: The books would be available in multiple countries and in each country's respective currency.
4. Interactivity: Books provide interactive graphics features, allowing users to view graphical content in addition to audio content.
5. Author-narrated: The team will strive to ensure that books are narrated by the authors themselves to allow for more authenticity in reading the books.
6. Engagement: The app will allow audio Q&A interaction with the authors, thus keeping the book alive.
7. Quality: The managers aim to provide audiobook recordings that are of high quality that make listening to books enjoyable.
8. Goal-oriented: The managers aim to help users achieve their goals by providing goal-monitoring and notifications to help achieve their goals
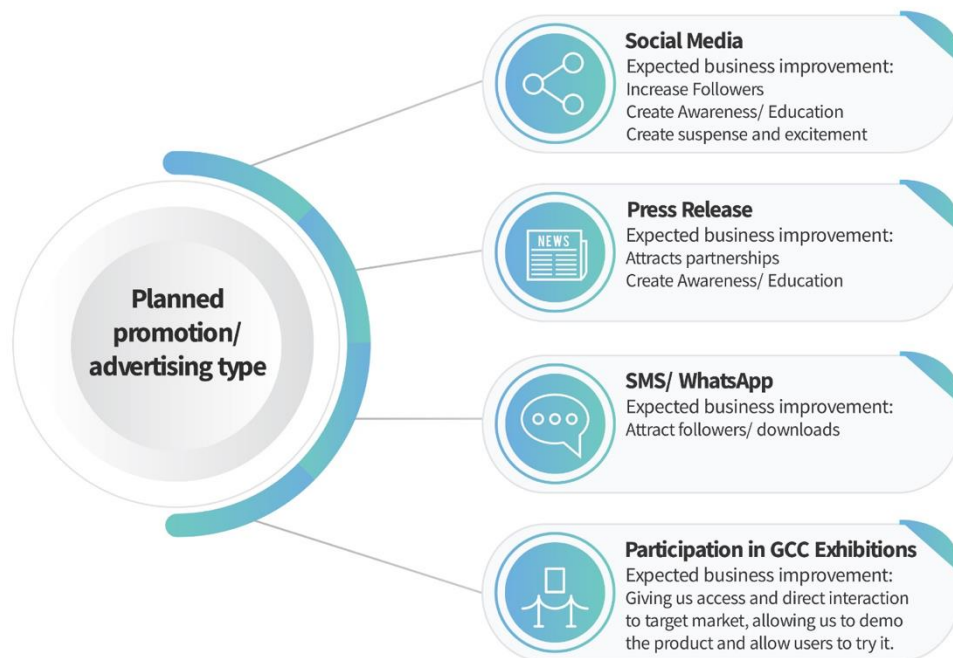9. Social-Media Linked: The application will link to various social media and allow users to connect and network.

Social Media
Expected business improvement:
Increase Followers
Create Awareness/ Education
Create suspense and excitement

Press Release
Expected business improvement:
Attracts partnerships
Create Awareness/ Education

SMS/ WhatsApp
Expected business improvement:
Attract followers/ downloads

Participation in GCC Exhibitions
Expected business improvement:
Giving us access and direct interaction to target market, allowing us to demo the product and allow users to try it.

Planned promotion/ advertising type

FIGURE 2
THE ADVERTISING AND PROMOTIONAL STRATEGY OF AL RAWI APP

Case 2: Akalati:

AKALATI was launched by Abdullah Al-Aradi in February 2018 (Figure 3) (Table 4). His personal experience in organising food and catering for social events for friends and family,

and the magnitude of effort and anxiety that the planning and arranging of these events required inspired him to develop this app. He noticed that his friends had the same problem in organizing wedding parties, birthdays, or formal events. Therefore, he aimed at digitizing custom orders, allowing restaurants, bakeries, and service providers to sell their services through the application. This allowed customers to plan and arrange any kinds of events without the need to worry about food.
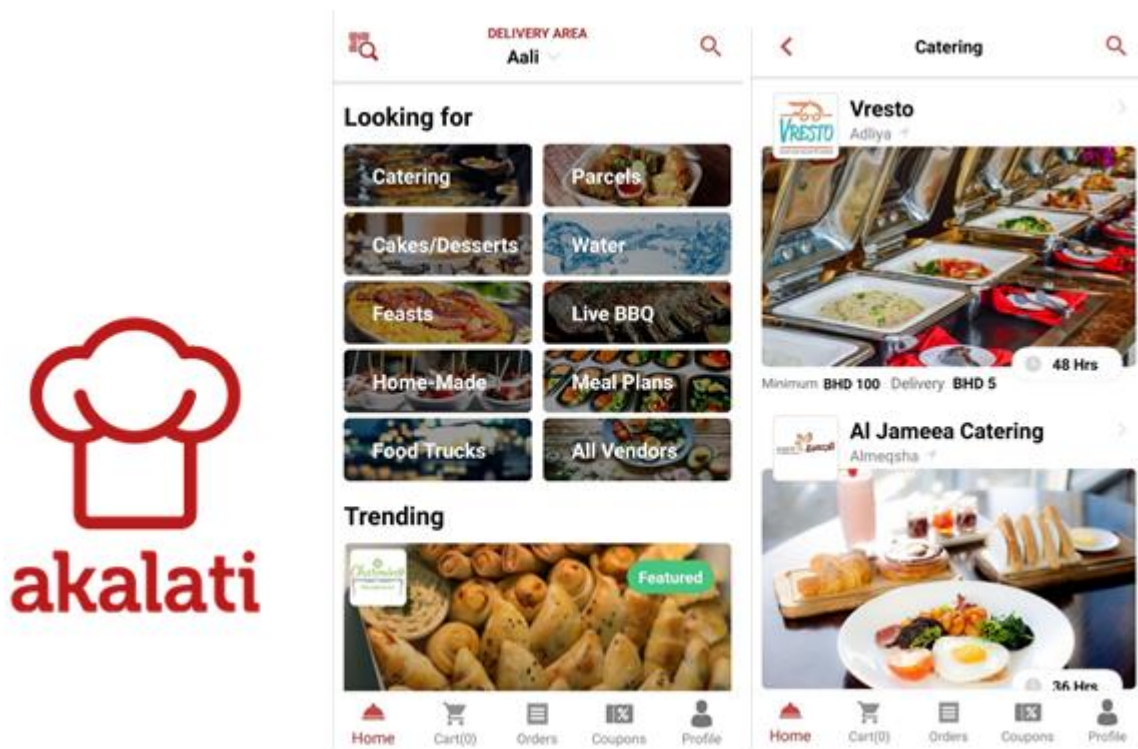

FIGURE 3
THE LOGO AND SCREENSHOTS OF THE INTERFACE OF AKALATI APP

Al-Aradi said that he started to think of AKALATI when he noticed a market gap in the area of eating, food, and catering services. He was encouraged by the success stories of many applications in the market as well as the presence of business accelerators that provide support services to entrepreneurs, enterprises, and start-ups. He stated, *"What makes Akalati app unique is that it focuses on an untapped market by emerging food technology companies. It gives users the ability to reduce the stress that comes from planning for events, parties or simple excursions"*. Al-Aradi said that the implementation of the application began with the research stage, which involved gathering information, selecting the appropriate body to build the application, testing, fixing, changing, and improving, which is a continuous and never-ending process. He stated, *"We currently have more than nine thousand downloads of the application and around three thousand actual users*."

The application team consists of founder Abdullah Al-Aradi, a chief technology officer (CTO), and a Development and Marketing Officer. Regarding the importance of having a partner, Al-Aradi said, *"The presence of a working partner is important, but its absence does not prevent the founder from continuing if he believes in the idea."*

He also said that he was lucky to obtain support from Tamkeen from the beginning, where he received financial support that covered a large part of the development and marketing costs. This support had a significant impact on setting an ideal start to implementation in the early stages by developing the first version of the application and launching it within nine months. However, according to Al-Aradi, *"Some of the mentors in some accelerators need guidance, which is the bitter truth; the majority of their skills are weak, but this does not mean that there aren't mentors who are very useful and have high skills"*. He also believes that there are several obstacles facing the emerging entrepreneurs including insufficient marketing skills in the market, limited financial support, and the difficulty of finding those who believe in the idea. He thinks that this is because everyone has different ideas, and he also attributed it to the ineffectiveness of the educational system, *"which did not establish and teach students since childhood to produce creative ideas and skills so that they would reach the university level with high abilities that are reflected on their personalities"*. Despite what the app has achieved so far, Al Aradi does not consider the application successful so far as he indicated that *"it takes at least three to four years, so we can judge its success or failure. There are many reasons for some startups to fail; these include over-support, mismanagement, or impractical application of the idea and others"*.

Table 4 AKALATI APP INFORMATION	
Akalati App	
Founding Date	Feb 2018
Founders	Abdulla Al-Aradhi, Sadiq Hasan
Funding Status	Pre-seed
Last Funding Type	Angel
Number of Employees	5
IPO Status	N/A
Investors	Flat6labs, Tenmou, 500Startups
Monthly Downloads	Undisclosed

Case 3: Malaeb:

Maleb App was launched on 15 May 2016 (Figure 4) (Table 5) after Ahmed Al-Rawi and Yasir Abdulaziz were inspired by their practice of football, their observation, and their sense of difficulty in booking, acquiring stadiums, and forming teams with players.

The aim of Malaeb is to help football players to reserve football fields and to join the matches because players usually face difficulties in reserving stadiums and also in finding players to play with them.

The application went through two stages of development; during the first stage the focus was on the process of reserving stadiums only and in the second stage an additional feature was added to allow for the selection of players and the formation of teams. This was followed by consistent attempts to market the project and to spread the application.

Malaeb was awarded the first prize at the Bahrain Competition for Emerging Projects (FACE OFF ON THE BAY), which was organized by Brinc and C5 business initiatives and sponsored by the Tamkeen Fund in 2017. The prize was worth $ 50,000, plus a paid trip to the Internet Summit in Lisbon, Portugal.
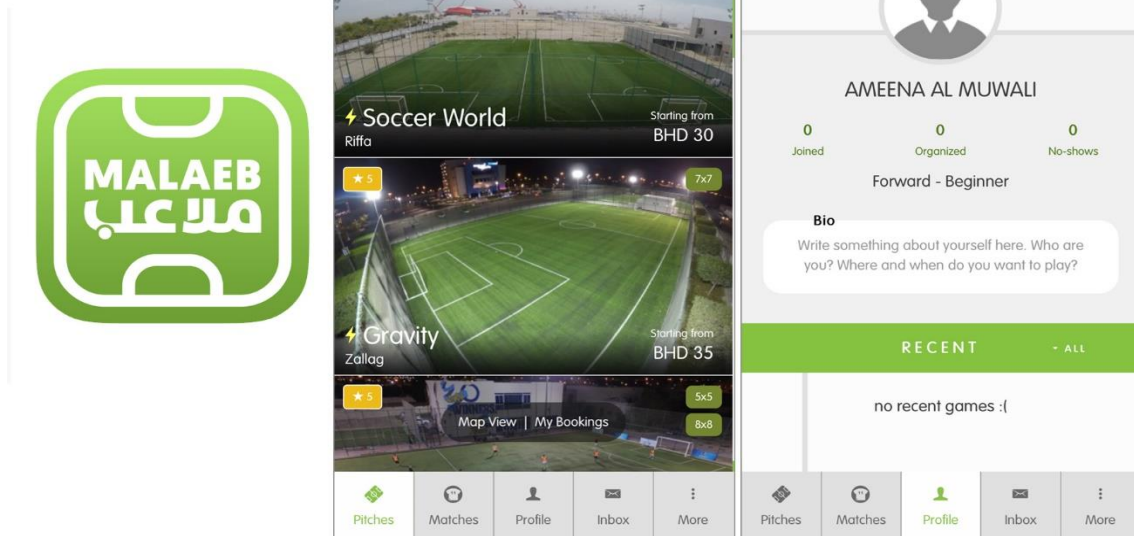
FIGURE 4
THE LOGO AND SCREENSHOTS OF THE INTERFACE OF MALAEB APP

Table 5 MALAEB APP INFORMATION	
Malaeb App	
Founding Date	15 May 2016
Founders	Yasser Abdel Aziz and Ahmed Al Rawi
Funding Status	Seed
Last Funding Type	Seed
Number of Employees	13
IPO Status	Private
Investors	Malaeb is funded by 4 investors (500 Startups, Inspire Ventures, vision Ventures, and Read Ventures). 500 Startups and Inspire Ventures are the most recent investors.
Monthly Downloads	20378

From the founders' point of view, their partnership and management of the project as a team of thirteen members has greatly helped them because of the different skills of each partner. The partnership has contributed to a more focused division of tasks.

Malaeb has been financially supported by Tenmou Business Incubator. An investment has been made to purchase a stake in the project, in addition to obtaining advisory support which includes more than one of the most important feedbacks on the growth and employment plan. Thus, the founders obtained adequate support but they believe that better quality mentors are needed in Bahrain.

The founders mentioned that the factors that led to the success of the application are many and the most important factors include hard work and the ability to adapt, develop and change in the face of any challenges or problems. There are many reasons that lead to the failure of start-ups, ranging from partner disputes, lack of adaptation to market and technology changes, running out of funding before aligning the product with market needs, and a large number of

competitors who are better at execution. The founders of Malaeb had some concerns before starting to implement the idea of the app. They stated that "the main fear was that the app may not be accepted from the beginning because the idea is new and this is the problem or challenge that usually faces most new start-up ideas".

Case 4: Nural:

Nural is an application designed to help individuals and teams write ideas as well as find inspiration, manage tasks and take notes in a highly organized way. Nural stimulates imagination and inspiration, as it handles various tasks ranging from quick ideas and simple tasks to complex projects for advanced users. It provides an ideal creative environment for the user and removes menus and any other clutter by putting all the tools in the right places, to allow the user to focus on what is important. It also allows the user to write notes and modify them through the tools available in the application. It is ideal for both quick notes and even comprehensive articles. Nural also provides some simple, intuitive gestures, which make it easy, simple, and smooth to navigate through the application pages. The following are some of the facts and features of the app (Figure 5) (Table 6):

- Initially, the application supported Arabic and English only, but after spreading among people all over the world, it supports Vietnamese, Chinese, French, and Russian, at the request of users who are impressed with the application because it meets their needs.
- The number of the app users is more than 50,000 and the proportion of increase is 240 percent per month.
- The application download fee is $ 9.99.
- The application production costs included BHD 2,300 for the MacBook Pro and PC version, BHD 960 for the iPhone and iPad version, BHD 700 for annual iOS developers salary, BHD 500 for the Graphic designer salary
- The programming languages used are Swift Programming Language for server and client side, X-code for iOS and macOS development.
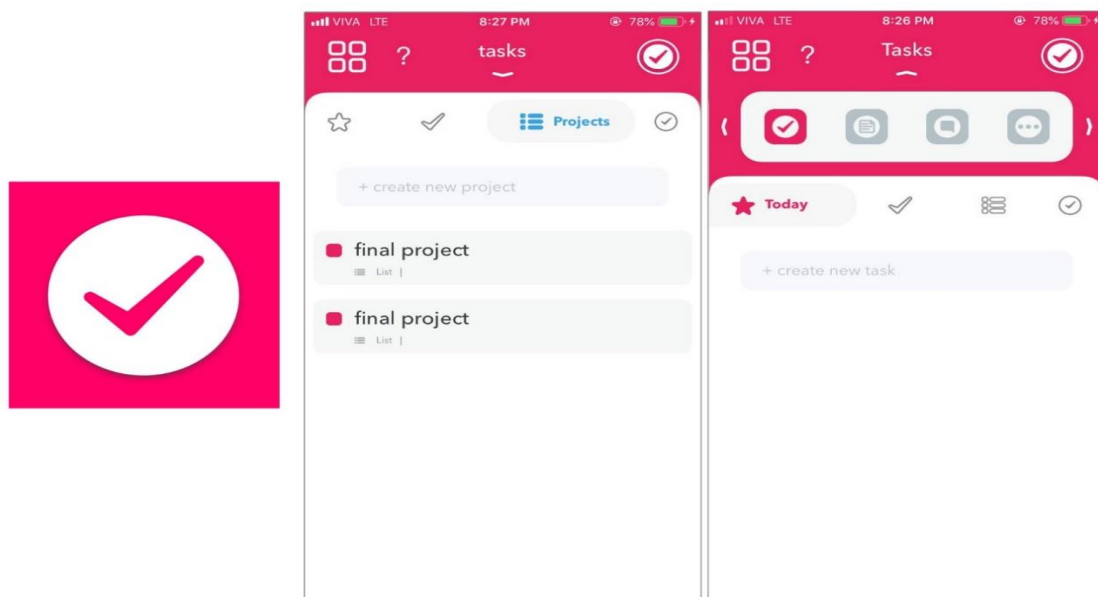

FIGURE 5
THE LOGO AND SCREENSHOTS OF THE INTERFACE OF NURAL APP

Table 6 NURAL APP INFORMATION	
Nural App	
Founding Date	March, 1, 2018
Founders	Hamad Fuad
Funding Status	Seed
Last Funding Type	Seed
Number of Employees	1-10
IPO Status	Private
Investors	Flat6labs
Monthly Downloads	220 monthly web visitors.

Initially, the founder of the application worked individually, and then he worked in a team of three people. He believes that working in a team was a must to move forward faster. He emphasized the importance of choosing the right people for different tasks and making good decisions.

Nural App got support from Tamkeen, BDB, and Flat6labs as well as some investors and friends and has been developed and renamed as Nural. The founder of the app, Hamad Fuad, mentioned that the number of relationships that he formed in the past years helped him to obtain support. He also pointed out that he did not seek the assistance of consultants, but rather relied on himself stating that *"no one could run your project better than you do if you have the knowledge"*. He said that he takes his decision through mediation sessions. For example, he contemplates a situation that Facebook is going through and he learns from how they deal with it. In addition, he received support from the family. His father was one of the first supporters financially, but he always refused his father's help because he wanted to challenge himself and harness all his strengths and potential competencies to achieve his goal. Fuad praised the supporting bodies in Bahrain, although he criticized the slow procedures for obtaining support, which affected the growth of the start-up. He generally believes that having a strong team is considered one of the most important factors of success in this field. Therefore, he thinks that some startups are experiencing failure due to the insufficient experience that their founders may have. Another factor that may lead to the failure of tech start-ups, according to him, is failing to update and develop the product or the service based on the market needs.

One of the main obstacles encountered after launching the application is the disparity of needs between ordinary and advanced users. He explained that some want to see buttons and certain features and others don't, which led him to study this matter for several months in order to guarantee the personal user experience. He wanted to find out how to deal with the users personally and give them only what they need; an ordinary user may have basic needs while an advanced user may have advanced needs. In addition to the financial obstacles which he was able to overcome through his experience and personal relations, Fuad stated that he didn't encounter technical obstacles due to his extensive programming experience.

Case 5: Skiplino:

Skiplino is a free queue management system that allows customers to book tickets and queuing spots in any branches/locations of businesses that offer different services. On the other hand, it also allows businesses to handle customer queues smartly and speedily. Skiplino is an intelligent and cloud-based app that can monitor data related to queues in real-time, and collect customer feedback. Its cloud-based software can then assess this data to speed up the

performance of the agents and services. The app allows users to install one of the following versions:

- Customers Free Mobile Queuing App: The consumer app is for customers to download into their own devices. This is ideal for returning and loyal customers.
- Walk-in Customers Tablet App: This version is for walk-in customers who do not know or are not interested in using the app. For these customers, businesses can set up an on-site tablet app near the queues, and customers will be able to book or sign up without having to wait in line to interact with a human agent.
- Agent App: Skiplino is a fully automated online queue management system but it still relies on the personal human touch, by using Skiplino agent app (IOS, Android, Web & Chrome) representatives can call customers and offer them a more personalized experience.
- TV App: Similar to the tablet app, this version displays called/booked tickets and information on a TV screen at the site. Customers can easily refer to the TV app for information on when they have been called and to which desk or agent they should go.
- Management and Analytics App: This version allows business managers to monitor staff performance in real-time and receive customer feedback. At this stage, the business can collect valuable data to improve efficiency and customer satisfaction in the long term.

Skiplino includes a number of key features. Its Queue Management System records the company's imminent customers and the services they intend to use.   It also has a traffic management feature and its cloud-based queue management analytical platform allows business owners to monitor how many visitors are queuing at each branch, along with information about their background and preferences. The app also allows walk-in customers to book their tickets and get their ticket number in an SMS or e-mail.

The App launched in 2016 under Level Z (a startup studio in Bahrain) as a B2B business and became a self-supporting company in January 2017. It targets service centers, and there are 2500 signed-up companies on Skiplino website so far. Since its launch, Skiplino has been adopted by many organizations in 6 different continents and over 196 countries from different industries: Banking, Telecom, Government, Education, and Service Centers. It was named one of the 20 hottest Startups in TNW Europe 2016. The following are some of the facts and features of the app (Figure 6) (Table 7):

- The App is available in 69 languages.
- Skiplino has 88 monthly app downloads.
- The most popular downloaded versions are Skiplino, Skiplino Admin, and QIMP.
- Monthly Download Growth is 37%.
- Skiplino is ranked 2,102,645 among websites globally based on its 9,835 monthly web visitors.
- Skiplino is actively using 61 technologies for its website. These include Viewport Meta, IPhone / Mobile Compatible, and Google Analytics.
- Skiplino uses 12 technology products and services including Google Analytics, WordPress, and G Suite (formerly Google Apps for Work).

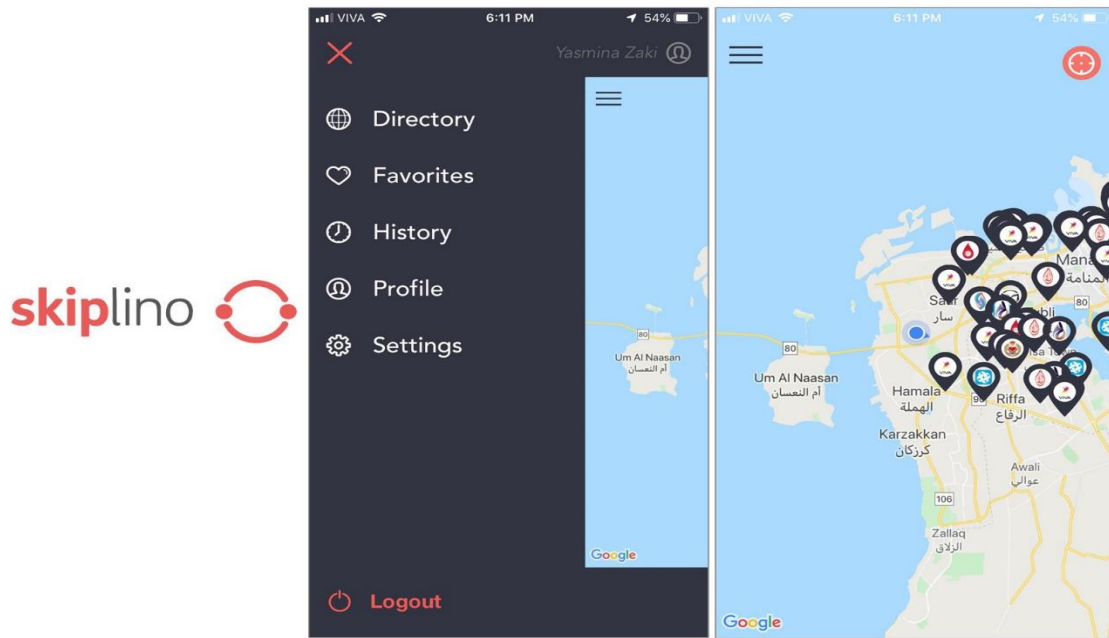| Table 7 SKIPLINO APP INFORMATION	
Skiplino App	
Founding Date	Aug 1, 2015
Founders	Alharith Alatawi, Ricardo Gasper, Zaman AH. Zaman
Funding Status	Early stage venture
Last Funding Type	Series A
Number of Employees	3
IPO Status	Private
Investors	KISP Ventures and Level Z
Monthly Downloads	571

FIGURE 6
THE LOGO AND SCREENSHOTS OF THE INTERFACE OF SKIPLINO APP

The founder of the App, Zaman AH. Zaman, started his idea while thinking of a solution to one of the most irritating daily problems that he and others face, which is standing in lines and queues. He specifically got inspired by this idea while he waited in a bank for 45 minutes. So, he thought of developing a software system to solve this problem by offering an automated smart mobile queuing app to better manage traffic/flow and save people a lot of time. He found out that the hardware queuing management systems are costing the companies around $15,000-$20,000. On the other hand, his App will cost 10% of such hardware queuing management systems, which it is capable of replacing.

Before developing the App, he started to sell and test the idea. He approached a lot of entities to ask about the validity of his idea. When he realized that there was interest and demand from clients who were seeking such an idea, he started to develop the App with his team, and then he launched it in the market. In the beginning, they offered the App for free for one year in order to allow users to test it.

Regarding funding, Skiplino raised 2 seed rounds from the founders and their friends in 2015 along with the support of Level Z. On Oct 10, 2018, a Series A round was led by KISP Ventures; a Shariah-compliant VC firm established by Kuwait Finance House; and Impulse International to invest in innovative opportunities and high-tech start-ups.

Currently, Zaman has two partners; Alharith Alatawi, Chief Operating Officer who has corporate Finance, finance and HR Tech and Investments background, and Ricardo Gaspar, Chief Creative Officer who has a design, UI and UX background. Each one of them is specialized in a different discipline. He chose them based on the skills that he lacks and the areas that he needs help with. When he was asked about the importance of the role of his partners in the App growth and success, he ensured their roles in achieving the quick growth of Skiplino.

According to Zaman, Skiplino did not get any funds from any supporting bodies except Tamkeen from which he got the Wage Subsidy Support for his employees. Tamkeen offers this

kind of support for Startups to obtain financial support when hiring Bahraini employees, train them, or increase their salaries. This helps in terms of lowering staffing and training costs for Startups which in turn should enable them to steadily grow their businesses. He got Media support from EDB (Economic Development Bank). Zaman stated that he did not approach any supporting organization for consultation because he considered himself well experienced.

Zaman emphasized that he did his business plan with his team without needing help from any entity. They used software called Live Plan (3). The Marketing strategies they applied depended on using social media to reach their consumers and maintaining the App and monitoring its metrics through SEO and Google AdWords.

When asked about the factors that led to the success of Skiplino, Zaman stated, "it is cheaper, distributive to the industry that has not been changed for the last 30 years and it has a good business model". He said that the main reasons for startup failures, despite the support they get, include "not having a clear path on how to make money, overestimating their market size, and over-confidence".

When asked about the constraints and challenges he faced, Zaman indicated that some clients had some uneasiness relating to the security concerns that stem from using a cloud-based solution and integrating it with the company's IT systems. However, this concept changed quickly with the existence of AWS and other entities. Regarding the challenges, he said that he and his partners did not face any challenges except that the banks refused to lend them money because they considered them a high-risk startup.

Interviews

Based on the interviews conducted as part of this research with eleven support organizations, it is manifest that Bahrain provides numerous kinds of support to nascent techpreneurs. These services include linking the entrepreneurs with organizations and individuals who may fund their startups, providing them with mentors who can guide them in their administrative role, offering advisory and administrative services including office and secretarial support, providing shared office spaces and meeting rooms, and many other services and forms of support which are listed in the following table (Table 8).

Table 8 A LIST OF THE INTERVIEWED SUPPORT ORGANIZATIONS IN BAHRAIN AND A SUMMARY OF THE SERVICES THEY PROVIDE	
Support Originations	**Services**
Bahrain Chamber of Commerce and Industry	• Business planning: the organization supports entrepreneurs and helps them in specifying the product or service to be sold or provided, the price, and the targeted customers • Training: the organization provides intensive training to strengthen entrepreneurs' management, administration, and communication skills • Budgeting: The organization helps in determining the financing requirements to start up the business, and determining the sources of funding either by borrowing from banks or by matching the owner with a partner that already has the needed financial resources • Incubation: The organization provides informational expertise from the incubators who have intensive experience in the field

Kickstart Bahrain	- Training workshops every eight weeks, dedicated to entrepreneurs in Bahrain, in topics related to business and finance, marketing, IT Solutions, and Cloud Solutions - Technical support which includes site development, application design, and campaign management - Providing practical training sessions - Cooperating with Tamkeen, the Economic Development Board, and the Industrial Investment Bank, to finance small projects when needed - Following up with businesses
University of Bahrain Incubation Center	- Offering a place to launch the project - The center's hall can be used for meetings - Offering experienced mentors to benefit from their experiences - The center provides free access to the Internet, electricity and water, printer and fax - The center signed a memorandum with Newton Consulting Group a year ago, and allocated a quarter of a million dinars to support student projects, as well as legal support
Ministry of Industry Commerce and Tourism	- Raising the awareness of the beneficiary and the emerging institutions, by offering several business-related courses - Organizing entrepreneurship programs to get technopreneurs familiarized with the available services which they can benefit from - Providing lectures in universities to encourage students to establish their own tech projects - Helping nascent entrepreneurs with planning their business plans - Organizing startup boot camps to introduce nascent entrepreneurs to the surrounding community and provide the necessary experience needed for the first few months of the business
Brinc	- Offering workshops and programs customized to the specific business needs - Offering one-to-one sessions, mentorship, inspirational talk, and meetups to enable startups to get access to the community - Offering a huge mentor network - Offering advice, guidance, and recommendations
BDB	- Offering advice by experienced mentors who are specialized in different industries - BDB Rowad program offers a wide spectrum of support services, different types of workshops, training, and events.
EDB Bahrain Startups	- launching an online startup platform - Supporting women in the role of fintech - Attracting foreign investments into the Kingdom of Bahrain by acting as a promotion agency - Supporting the initiatives that enhance the investment ecosystem
Tamkeen	- Financing and Grants - Training - Mentorship - Research and Studies
Spire Hub W.L.L	- Support and assist entrepreneurs in: - Developing Feasibility and Market studies - Creating business models, business plans, in addition to Marketing

	strategies. ● Providing Mentorship, coaching sessions, and training ● Business Lounge
Bahrain FinTech Bay	● Providing the workplace, printing, photocopying, and fax services, in addition to providing communication and internet connection services ● Supporting women who are planning to grow their businesses ● Transforming Bahrain into a Fintech hub by enhancing the local ecosystem ● Providing Fintech acceleration programs
CH9	● Assisting in designing the business plan, developing a feasibility study, in addition to studying market needs, assisting in identifying competitors, and also assisting in project budgeting ● Assisting in presenting the project to the investors, selecting the team, in addition to developing a marketing strategy and building relationships with companies and institutions at the local and international levels, as well as presenting competition prizes ● Helping with prototype design and product experimental product manufacture, as well as assistance in 3D product design and the use of VR technologies to interact with the product, as well as assistance in consulting specialists to solve technical problems and design or make a product ● Providing workplace, printing, photocopying, and fax services, as well as secretarial service, in addition to providing communication and internet connection services

Zainab Alaali, the representative of Bahrain Chamber of Commerce and Industry (BCCI) said "Bahrain environment is business-friendly; its rules and regulations are helpful in terms of establishing and facilitating businesses even for non-Bahrainis. Also, Bahrain supports its nascent techpreneurs financially through specialized organizations and banks such as Tamkeen, Ebdaa Bank, and Family Bank. Moreover, there are many other facilities such as workshops and training programs offered by different organizations in Bahrain to assist nascent techpreneurs."

According to Emad El Kayali, the managing director at Kickstart Bahrain, the current plan is carried out in cooperation with the Ministry of Industry, Trade and Tourism to conduct workshops every eight weeks dedicated to entrepreneurs in Bahrain on topics related to business and finance, marketing, IT solutions, and cloud solutions. In addition to these workshops, there are several additional courses provided to entrepreneurs by Bahrain Fintech Bay such as digital marketing, tools for startups, tech opportunities and challenges, and many others. Emad El Kayalim also stated, "Technology has become the head of most businesses. Entrepreneurs will not be able to succeed in their projects without establishing a website or a mobile application. Thus, most incubators in Bahrain such as Kickstart prefer to support this type of project."

In addition to the above-mentioned manifestations of support, Mr. Faisal Mudara, an outsourced projects operator from Tamkeen indicated that Bahrain provides many types of financial support to its startups such as:

- Subsidized loans through Islamic Financing partner banks
- Enterprise support (Partial grants toward costs covered for tech/equipment, marketing, ICT).

Moreover, AreIJE Al Shakar, Mentor and Coach of BDB Rowad, added that BDB has recently launched a new program aimed at serving new entrepreneurs. This program is called

Rowad. It is a comprehensive platform designed to assist and empower entrepreneurs in starting their businesses. The program supports entrepreneurs from the earliest stage of idea conceptualization all the way to the stages of growth and maturity along with distressed stages. The program resides on a number of pillars, which include coaching, training, incubation, funding, mentoring, and offering entrepreneurs a holistic platform of products and services.

Another important support organization is the SME unit at Bahrain Chamber of Commerce and Industry (BCCI), which offers different stages of support for an emerging tech startup. These stages are the following:

1. Business planning stage: This stage specifies the product or service to be sold or provided, the price, and the targeted customers.
2. Training stage: In this stage, the owners will receive intensive training to strengthen their management, administration, and communication skills.
3. Budgeting stage: This stage determines the financing requirements to start up the business, and determines the sources of funding either by borrowing from banks or by matching the owner with a partner that already has the needed financial resources.
4. Incubation: This stage is meant to provide informational expertise from the incubators who have intensive experience in the field.

All these forms of support in addition to the support that the startups in this study have received prove the usefulness of business incubators and accelerators in Bahrain. They demonstrate how the ecosystem in Bahrain is business-friendly, and stress that it is a good starting point for anyone launching a startup or a business, and that business accelerators and incubators can be really helpful to all kinds of startups.

Despite all the above-mentioned support, some accelerators are facing some challenges that may impede their objectives. For example, the representatives of Brinc, Marwa Aleskafi and Zainab Khamis stated that the main challenge faced by their organization is "finding ways to attract competent techpreneurs". They stated that it is not an easy task to find a unique application or idea to be adopted or supported. The rest of the interviewees mentioned additional challenges indicating that the lack of expertise, fear of failure, and not being serious may lead to dropouts from the project. They also indicated that financial issues and finding sources of funding may be a challenge for both, support organizations and entrepreneurs.

Moreover, some accelerators in Bahrain, such as Brinc, experienced some challenges in finding companies that are interested in investing in Bahrain because some of them are not familiar with its environment.

Dr. Essam Janahi, the Ex-Director of the University of Bahrain Business Incubator Center, said that funding is the biggest challenge they faced with projects, plus the investors' preference to invest in low risk and little capital projects, which lead to the ignorance of innovative and industry projects. He also complained about the location of the incubator center, which is a little far from the university campus.

According to the conducted interviews, the success of tech-startups depends heavily on the entrepreneurs themselves. According to Zainab Alaali, representative of Bahrain Chamber of Commerce, passion, market research, and seeking assistance from supporting organizations are the most valuable factors that lead to the success of startups. Moreover, in her interview, AreIJE Alshakar, the Vice President and Deputy Head of Development Services Division at Bahrain Development Bank said, "Speed of implementation and execution alongside the quality of the team are the most important factors that allow any tech-startup to succeed." So, tech-startups need to believe in their ideas and projects, and in their ability to continuously innovate.

Zainab Alaali also stated, "Bahrain is a leading country in the field of techpreneurial innovation. It may appear as the most distinctive country among GCC countries and one of the best globally. Bahrain believes in its entrepreneurs. As a result, it provides them with a wide range of different services." These services can be either financial services which are provided by some specialist organizations such as Bahrain Development Bank, Ebdaa Bank, Family Bank, Tamkeen, etc. or training and wage services. For example, Tamkeen provides direct financial subsidizing services, training services, and advertisement services. When it comes to training, the business pioneer, Abdulla Alaradi, the founder of Akalati app proved the efficiency of the offered training programs at Tamkeen as he stated, "I was given the opportunity to attend a marketing training course designed for nascent businesses and entrepreneurs. This training course filled the gap between my knowledge and my skills and enabled me to use the different tools and ideas in a professional manner to break through the market as quickly and strongly as possible." Another example of the best services provided for tech-startups is the boot camps which are offered by BCCI and aim to allow idea holders and innovators to convert their ideas into startup businesses. Moreover, Dr. Essam Janahi, Ex-Director of the University of Bahrain Business Incubator Center said that the incubator offers many services including the place to launch the project, free access to the internet, free electricity and water, and some other administrative services.

On the other hand, AreIJE Alshakar, believes that what helps to keep entrepreneurs successful, is their belief in their projects, their hunger and drive to continue, and their ability to continuously innovate. Pakiza Abdulrahman, the manager and ICT of Bahrain EDB, believes that "being an entrepreneur is a spirit, passion, and perseverance". Hadyah Fathalla, however, said that one of the reasons beyond entrepreneurs' success is going through acceleration and incubation programs which increase their chances to be scalable and sustainable.

The rest of the interviewees mentioned additional success factors such as good pitching skills, multi-skilled team members, constant improvements to MVP, as well as product and market knowledge. Moreover, all the interviewees emphasized the importance of the founders' characteristics, which should include persistence, passion, hardworking, willingness, and resilience.

DISCUSSION AND RECOMMENDATIONS

Despite Bahrain's business-friendly and supportive ecosystem, some challenges are still faced by entrepreneurs and support organizations. Most of the challenges and obstacles can be potentially resolved due to the contentious efforts by the government, stakeholders, and ecosystem support organizations like EDB. According to the interviewed support organization representatives, the challenges revolve around financial issues, finding competent entrepreneurs, lack of expertise, embedding VCs' new culture, and finding investors.   Conversely, the following are some of the main challenges that the interviewed techpreneurs revealed:

- Financial obstacles
- The disparity of needs between ordinary users and advanced users
- Technical obstacles
- Difficulties in finding entities and support organizations that believe in the idea
- Insufficient marketing skills
- Lack of experience in manufacturing
- Rejection of bank loan requests

On the other hand, the success of the entrepreneurs, according to the interviewees, relies heavily on their ability to adapt to the constantly changing market and building up a highly skilled team in addition to being goal-oriented and resilient. The following are some of the main success factors that the interviewed techpreneurs suggested:

- Employing highly experienced and skilled team members
- Updating the product or the service based on the market needs and trends
- Giving attention to product design and user interface design
- Having a good business model
- Practicing and getting exposed to different experiences
- Implementing good marketing strategies
- Constantly reviewing and improving the project business plan and strategies
- Following up with customer needs by conducting focus groups and phone   interviews to ensure customer and user satisfaction.
- Willing to adapt, develop and change in order to overcome any challenges or problems starting from the economic vision of Bahrain 2020, business incubators and accelerators work to activate the role of techpreneurs in the local market, by supporting innovators with ambitious ideas throughout the different levels of establishing their business startups. This will contribute to the growth of small and medium enterprises and will, in turn, lead to the development of the economy of Bahrain.

Based on the findings of this research, the study recommends the following:

- The website of the Ministry of Industry, Trade, and Tourism as the organization of this sector shall include a list approved and licensed by the Ministry for incubators and business growth accelerators to facilitate the access of entrepreneurs to it.
- Re-examine the requirement of the Ministry of Industry, Trade and Tourism to limit the acquisition of an address within the incubator to the new records from one to 12 months, to include the second type, which has exceeded one year to benefit from all the services provided by incubators and business growth accelerators.
- The adoption of the idea of entrepreneurship courses as introductory courses for each stage in proportion to the cognitive abilities of each level by the ministry of education. This will enhance the ability of students to produce creative ideas from childhood and will help facilitate their acquirement of additional and more advanced entrepreneurship skills when they go to college.
- Training some entrepreneurs to prepare the visual presentation of the project, and how to present it to convince the existing team of their new ideas
- Business incubators should embrace the innovative ideas of technology entrepreneurs in the Kingdom of Bahrain and finance them with what is suitable to the project's requirement
- Instructing university professors to encourage students who have creative ideas in technology to go to incubators to refine their ideas in projects that contribute to the economic development of the country
- Encourage the institutions of the economic sector in the Kingdom to contribute to the financing of business incubators because of their role in the development of the economy

In addition to the above-listed recommendations, the founders of the startups discussed in this paper suggested some recommendations; The founder of Malaeb advised startup owners not to fear failure, to be patient and flexible in response to any changes or challenges they face, and to feel the sense of implementation through rapid experience. He believes that they will not repeat the mistakes they have learned in their journey while attempting to implement their future businesses. On the other hand, Zaman, the founder of Skiplino, stated that *"whoever wants to enter this field must be well-prepared for the market, work hard and manage his/her time, and definitely find the good idea that solves a problem and helps make money out of it."* Al-Aradi, the founder of Akalati, advised young people to take the chance to read books, take advantage of previous experiences, give up routine thinking, change the way they think and live, and avoid

getting any ordinary job after graduation. Sulaiman, the founder of Al Rawi, advised entrepreneurs to have perseverance and optimism to realize their dreams and hopes and translate them into projects that meet their ambitions, especially with the appropriate environment and support for emerging projects in the Kingdom. She indicated that START BAHRAIN is supporting these projects in recognition of their importance in achieving economic growth.

CONCLUSION

In Bahrain, many initiatives and strategies are being implemented to help tech startups grow and to offer a promising future for the kingdom's position in the global marketplace. The Bahraini Government is recently promoting Technopreneurship in an attempt to keep pace with developed countries and replicate the Silicon Valley model. This paper explored the role support organizations in Bahrain are playing in promoting technoprenuership, and the various services they provide to boost the growth of nascent techpreneurs. It studied and analyzed the status quo of techpreneurship in Bahrain to understand and share insights from prominent techpreneurs. By sharing these insights and the results from multiple case study analysis as well as interviews, this paper has identified the challenges techpreneurs face in Bahrain and the factors they recommend for any startup to succeed. The findings implied that future technopreneurs might face challenges such as financial obstacles, technical obstacles, insufficient marketing skills, lack of experience in developing the product, and rejection of bank loan requests.

However, to overcome the challenges several success factors and strategies are recommended, including the employment of highly experienced and skilled team members, implementation of effective marketing strategies, and constant updating of the product or the service as well as the business strategies according to market needs and trends.

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