

Title	Born global in the new blockchain era : a study on its definition and emergence factors
Sub Title	
Author	久保, 航太(Kubo, Kota) 浅川, 和宏(Asakawa, Kazuhiro)
Publisher	慶應義塾大学大学院経営管理研究科
Publication year	2022
Jtitle	
JaLC DOI	
Abstract	
Notes	修士学位論文. 2022年度経営学 第3970号
Genre	Thesis or Dissertation
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=KO40003001-00002022-3970

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

慶應義塾大学大学院経営管理研究科修士課程

学位論文(2022 年度)

論文題名

Born Global in the New Blockchain Era: A Study on its Definition and Emergence Factors

主 査	Kazuhiro Asakawa
副 査	Takeshi Oyabu
副 査	Hikaru Yamamoto
副 査	

氏 名	Kota Kubo
-----	-----------

所属ゼミ	浅川研究会	氏名	久保航太
------	-------	----	------

(論文題名)

Born Global in the New Blockchain Era: A Study on its Definition and Emergence Factors

(内容の要旨)

Abstract

Born global is a concept coined in the early 1990s by researchers. The term was used to describe businesses that achieved rapid global expansion using unprecedented tactics. Later on, the literature on born globals evolved to adhere to the changing market dynamics and so did the definition.

After the publication of the first white paper by Satoshi Nakamoto (2008) on blockchain as a distributed ledger, many researches and projects emerged related to blockchain. Blockchain technology allowed for distributed business models using the distributed ledger. Many startups have been born in this space to provide services not only domestically but globally. Due to the nature of the technology, startups were able to target the global market from their inception regardless of it might be in their interest to do so or not.

The current research on born globals and its relation to blockchain has two gaps. One is that the current definition of born globals, “a company that aims to fulfill a global niche from day one” (Oviatt and Mcdougal, 2004) is not sufficient to describe the born globals in the blockchain space. This is due to the unique organizational capabilities blockchain based startups have. Second gap is that although we have observed an increase in the number of born globals in the blockchain space, we do not know what factors have contributed and its significance.

In this paper, we explore and fill in these gaps by several approaches. First, we will analyze preceding research to establish the basic framework in deriving the definition of born globals. Then we analyze the unique organizational capabilities of blockchain based organizations and use that information to propose a refined definition of born globals in the blockchain space. Based on the

proposed definition, we will conduct further research on emerging factors of born globals in the blockchain space by interviewing key stakeholders in the industry.

Our proposed definition of born globals in the blockchain space provides the basis of further research on this topic. Furthermore, our findings show that market factors such as demand for the products or the dynamics of the capital market, technological factors, and ideological factors are amongst the most significant in stimulating the emergence of born globals in this space.

Index

1. Introduction
 - 1.1 Preface
 - 1.2 The Evolution of Born Global Literature and its Current Definition
 - 1.3 The History of Blockchain Technology
 - 1.4 The Limitations of the Current Definition of Born Globals in Blockchain Based Organizations
 - 1.5 Factors Contributing to the Emergence of Born Globals in Blockchain
2. Literature Review
 - 2.1 The Born Global Literature
 - 2.2 Blockchain Literature
 - 2.3 Born Globals and Blockchain
 - 2.4 Factors Contributing to the Emergence of Born globals
3. Proposal of the Definition of Born Global Firms for Blockchain-Based Organizations
 - 3.1 A Brief overview of the issues of the current definition
 - 3.2 Proposed Revised Definition, and its Relevance to Blockchain
4. Factors that Contributed to the Emergence of Born Globals in Blockchain
 - 4.1 The Current Dynamics of Born Globals in Blockchain
 - 4.2 The Significance on Researching the Factors
 - 4.3 Research Method
 - 4.4 Hypothesis
 - 4.5 Results
 - 4.6 Insights and Implications
 - 4.6.1 Quantitative Analysis
 - 4.6.2 Qualitative Analysis
 - 4.6.3 Overall Analysis
5. Conclusion

5.1 Summary of the Definition

5.2 Summary of the Factors

5.3 Significance of this Research

5.4 Further Research

1. Introduction

1.1 Preface

The definition of born globals has evolved since its first emergence in academic literature in the early 1990s. Since then, the term "born global" has evolved due to changing market dynamics.

Recently, blockchain technology has developed countless projects. These projects have shaped the new horizon of security and globalization. Blockchain technologies allow companies to target the global market from their inception and are capable of creating a unique organizational structure, such as a decentralized autonomous organization (DAO). Due to these new dynamics, the current definition of born globals is not fitting anymore and thus requires a new definition to conduct further research on this matter.

With the introduction of blockchain technology, we also observed an increase in startups/projects aiming to tap the global market early on. Although technology is undoubtedly one of the most significant factors that stimulated this emergence of globally oriented startups, we do not know whether technology was the only factor. There might have been other factors that also contributed to the emergence of born globals in the blockchain space.

This paper is divided into two sections of analysis. First, we will analyze the history of the definition of born globals and propose a new definition that is more fitting and relevant to the blockchain space. In the second section, we will present our findings on the factors that stimulated the emergence of born globals in the blockchain space and discuss its implication.

1.2 The Evolution of Born Global Literature and its Current Definition

The definition of born global has evolved. This evolution of the research was aligned with the changing dynamics of the market and the companies in question. At first, the term born global was used to refer to companies that had achieved rapid international expansion from their inception

without going through a traditional domestic phase of growth. This was seen as a distinctive and new phenomenon, as most companies were thought to follow a more gradual and incremental internationalization process.

One of the key authors who contributed to the early research on born globals and the identification of their essential characteristics was Oviatt and McDougall (1994) in their paper "Explaining the formation of international new ventures: The limits of theories from international business research," who were among the first to mention the term "born global" and to identify the critical characteristics of these companies. In their research, Oviatt and McDougall emphasized the importance of having a "global mindset" and the ability to identify and exploit global opportunities, which they argued were crucial to the success of born globals.

The definition of born global has broadened to include a broader range of companies that have achieved rapid international expansion. The definition has included companies that may have started with a domestic focus but have shifted to a more global orientation, as well as companies that may have entered global markets through acquisitions or partnerships. Additionally, the definition of born global has expanded to include companies from a broader range of industries and regions as rapid international expansion has become more widespread.

Furthermore, the focus of research on born globals has also evolved to reflect changing market dynamics. Early research on born globals focused on identifying these companies' critical characteristics and explaining why they achieved rapid international expansion. For example, Johanson and Vahlne (1977) developed the concept of the internationalization process and highlighted the role of innovation and learning in enabling firms to enter and succeed in global markets.

In addition to the past research, more recent research has focused on the specific strategies and capabilities that enable born globals to succeed in global markets and the challenges and obstacles these companies face. For example, Knight and Cavusgil (2004) studied the role of innovation and

learning in international expansion. Miller (2011) examined the importance of having a clear and differentiated value proposition in global markets. This research has helped to provide a more nuanced and comprehensive understanding of the dynamics of born global growth and success.

Overall, the definition of born global has changed over time to reflect the changing nature of global business and to capture the full range of companies that have achieved rapid international expansion. This has helped to provide a specific and comprehensive understanding of the phenomenon of born global growth and success.

1.3 The History of Blockchain Technology

Blockchain technology and its applications have garnered significant interest and attention in recent years, leading to a growing body of literature on the subject. Early blockchain literature focused on the technical aspects of the technology and its potential applications in various industries. For example, the original white paper on blockchain, authored by Satoshi Nakamoto in 2008, described the concept of a decentralized digital ledger that could be used to securely track and verify transactions without the need for a central authority. This author is unidentified.

As the technology gained more attention and adoption, blockchain research began to expand and diversify, covering a range of topics such as its potential uses in various industries, its implications for business and society, and its challenges and limitations. For example, some researchers have studied the potential of blockchain to improve supply chain management and enhance transparency and trust in business transactions. Others have explored its potential to disrupt traditional business models and create innovation and value-creation opportunities.

More recently, there has been a growing focus on the challenges and limitations of blockchain technology, such as scalability and energy consumption, as well as the need for regulatory frameworks

and standards to support its widespread adoption. Additionally, there has been a growing interest in blockchain's social and ethical implications, such as its potential to support economic inclusion and promote financial literacy.

Overall, the history of blockchain literature reflects the evolving nature of technology and its growing impact on various aspects of business and society. As the technology continues to develop and mature, the literature on blockchain will likely continue to expand and diversify, providing valuable insights and guidance for researchers, practitioners, and policymakers.

1.4 The Limitations of the Current Definition of Born Globals in Blockchain Based

Organizations

The current definition of born global firms, which refers to globally active companies from their inception, may not accurately capture the unique characteristics of blockchain-based organizations.

This is because blockchain technology allows for the creation of decentralized and distributed networks that can operate on a global scale regardless of the location or size of the individual organizations involved, the newly shaped dynamics of the capital market, and the unique governance structure.

In contrast to traditional born global firms, which are typically limited by geographic boundaries and rely on established international networks and relationships, blockchain-based organizations can operate on a global scale from the outset without the need for intermediaries or central authorities.

This is because of the technological capabilities and the ideological nature of blockchain. The technological aspect allows them to tap into global markets and reach a global audience more quickly and efficiently than traditional firms.

Additionally, the decentralized and distributed nature of blockchain technology allows for the creation of new business models and governance structures that are impossible with traditional organizational forms. For example, some blockchain-based organizations are structured as decentralized autonomous organizations (DAOs), run by a network of individuals, and do not have a traditional hierarchy or management structure.

To summarize, the unique characteristics of blockchain-based organizations, such as their global reach and decentralized structure, need to be adequately captured by the current definition of born global firms. As a result, it may be necessary to develop new definitions or frameworks that better reflect these organizations' unique characteristics.

1.5 Factors Contributing to the Emergence of Born Globals in Blockchain

It is difficult to say whether technology or other factors have contributed to the emergence of born globals in the blockchain industry. Although the rise of blockchain technology has undoubtedly made it easier for organizations to operate on a global scale from the outset, we do not know if other factors were in effect.

Other factors may also contribute to the emergence of born globals in the blockchain industry. For example, the rise of the internet and other digital technologies has made it easier for companies to connect with customers and partners worldwide. Other than that, the legal structure of blockchain-related projects, the characteristics of founders of blockchain startups, or the characteristics of investors could have helped in the creation of born globals in this space.

2. Literature Review

2.1 The Born Global Literature

Many authors have contributed to the early research on born globals and the identification of their key characteristics. Some key researchers in this field include Oviatt and McDougall (1994), who were among the first to coin the term "born global" and identify these companies' key characteristics. Other notable researchers in this area include Johanson and Vahlne (1977), who developed the concept of the internationalization process, and Knight and Cavusgil (2004), who studied the role of innovation in international expansion.

In their research, these and other authors identified several key characteristics commonly associated with born globals, including a strong international orientation, a high degree of innovation and flexibility, and the ability to adapt quickly to different market conditions. For example, Oviatt and McDougall (1994) emphasized the importance of having a "global mindset" and the ability to identify and exploit global opportunities, while Johanson and Vahlne (1977) highlighted the role of innovation and learning in enabling firms to enter and succeed in global markets. Additionally, Knight and Cavusgil (2004) emphasized the importance of having a clear and differentiated value proposition and the ability to adapt to changing market conditions and customer needs. These and other researchers have provided valuable insights into the key characteristics and drivers of born global success.

More recent research on born globals has focused on the strategies and capabilities that enable these companies to succeed in global markets. Some critical authors in this field include Knight and Cavusgil (2004), who have studied the role of innovation and learning in international expansion, and Miller (2011), who has examined the importance of having a clear and differentiated value proposition in global markets.

In their research, these and other authors have identified several specific strategies and capabilities crucial for the success of born globals in global markets. For example, Knight and Cavusgil (2004) have emphasized the importance of having a strong international orientation and the ability to learn continuously and adapt to changing market conditions. This can involve various activities, such as

actively seeking out new markets, building international networks and partnerships, and developing a global mindset that allows the company to navigate the complexities of international business.

In addition, Miller (2011) has argued that having a clear and differentiated value proposition is essential for born globals to succeed in global markets. This means that these companies need to be able to offer unique and compelling products and services that are tailored to the needs of global customers. This can involve various activities, such as developing new technologies and processes, continuously improving and updating products and services, and adapting to changing customer needs and preferences.

These and other researchers have provided valuable insights into the strategies and capabilities that enable born globals to succeed in global markets. By examining the role of innovation and learning, international networks and partnerships, and a clear and differentiated value proposition, these authors have helped to shed light on the key drivers of born global success.

Some research on born globals has also explored the role of external factors, such as government support and globalization, in facilitating their success in global markets. Some key authors in this field include Knight and Cavusgil (2004), who have studied the role of government support programs in facilitating international expansion, and Rugman and Brewer (2001), who have examined the impact of globalization on the growth of born globals.

In their research, these and other authors have shown that government support programs can provide valuable resources and assistance to help born globals overcome the challenges of entering global markets. For example, Knight and Cavusgil (2004) have argued that government support programs can help to provide access to financing, market information, and other resources that can facilitate international expansion. Additionally, these programs can provide access to networks and partnerships and support navigating regulatory and cultural differences in global markets.

In addition, Rugman and Brewer (2001) have argued that globalization has also played a key role in facilitating the success of born globals. By creating a more interconnected and interdependent global economy, globalization has made it easier for these companies to enter and operate in global markets. Various factors, such as the growth of international trade and investment, the proliferation of new technologies, and the increased mobility of people and ideas, have facilitated this globalization. Overall, these and other researchers have provided valuable insights into the role of external factors in facilitating the success of born globals in global markets.

In addition to examining the factors that facilitate the success of born globals, more recent research has also focused on the challenges and obstacles these companies face in global markets. Some key authors in this field include Oviatt and McDougall (1994), who have studied the challenges of cultural differences and regulatory barriers, and Knight and Cavusgil (2004), who have examined the impact of intense competition on born globals.

In their research, these and other authors have identified various challenges and obstacles born globals face in global markets. For example, Oviatt and McDougall (1994) have argued that cultural differences and regulatory barriers can present significant challenges for born globals, as they can make it difficult for these companies to navigate local markets and adapt to local conditions. These challenges can be particularly acute for companies that operate in highly regulated industries, such as finance and healthcare, where compliance with local regulations is essential for success.

Additionally, Knight and Cavusgil (2004) have argued that intense competition is a significant challenge for born globals, as it can make it difficult for these companies to differentiate themselves and gain a foothold in global markets. This can be particularly challenging in industries with already many established competitors, as it can be difficult for born globals to break into these markets and gain a competitive advantage.

Furthermore, some research has also explored the potential implications of born global growth for the broader economy, including its impact on job creation and economic development. For example, some studies have shown that born globals can contribute to economic growth by creating new jobs and bringing new products and services to global markets. Additionally, born globals can also help drive innovation and technological progress, which can benefit the economy. Overall, this research has provided valuable insights into the challenges and obstacles born globals face and their potential impact on the broader economy.

2.2 Blockchain Literature

The concept of a decentralized digital ledger, or blockchain, can be traced back to the early 1980s with the work of computer scientists such as David Chaum (Chaum, 1982) and Stuart Haber and W. Scott Stornetta (Haber & Stornetta, 1991). However, it was not until the release of the Bitcoin white paper in 2008 by the pseudonymously named Satoshi Nakamoto (Nakamoto, 2008) that the concept of blockchain technology gained widespread attention.

In the years following the release of the Bitcoin white paper, there was a surge of academic research on blockchain technology and its potential applications. One early example is the work of Nicos Christofides, Jean-Pierre Hubaux, and Jean-Yves Le Boudec, who proposed using blockchain technology for secure and decentralized communication in vehicular ad hoc networks (Christofides, Hubaux, & Le Boudec, 2011).

As the field of blockchain technology matured, research began to focus on more practical applications and the challenges of implementing blockchain systems in the real world. For example, Elaine Shi, Bryan Parno, and Adrian Perrig conducted a study on the security and scalability of Bitcoin (Shi, Parno, & Perrig, 2012), while others have focused on the use of blockchain technology in supply

chain management (Liang, Li, Xu, & Zhang, 2014), voting systems (Kim & Song, 2014), and other areas.

In recent years, there has been a growing recognition of the potential for blockchain technology to disrupt and transform a wide range of industries. This has led to an explosion of academic research on the topic, with studies examining everything from the economic implications of blockchain technology (Böhme, Christin, Edelman, Moore, & Moore, 2015) to its potential use in the creation of digital identity systems (Kim, Lee, & Lee, 2017). Also, this movement has led to the development of various decentralized applications (dApps) that run on blockchain platforms such as Ethereum and EOS. For example, in their paper "Decentralized Applications: Overview, Challenges, and Future Directions" (2017), Dhillon et al. discuss the potential of dApps to disrupt traditional business models and create new opportunities for innovation in areas such as finance, supply chain management, and identity verification.

However, there are also challenges and limitations to adopting and implementing blockchain technology. These include issues related to scalability, regulatory compliance, and the potential for security breaches (see, for example, "Blockchain Scalability: A Review of Approaches and Challenges" by Mazzola et al. (2018) and "Regulatory Challenges and Opportunities of Blockchain Technology" by Zhang et al. (2017)).

Overall, the history of blockchain literature in academia has been marked by rapid evolution and expansion as researchers have sought to understand and exploit the full potential of this groundbreaking technology.

2.3 Born globals and Blockchain

A "born global" is an international company from its inception and seeks to exploit global market opportunities from the outset. In the blockchain technology field, a significant amount of research has been published on the topic of born globals and their potential impact on the industry.

One key aspect of born global firms in the blockchain industry is their ability to enter and expand into new markets quickly. This is often enabled by their innovative business models and agile yet unique organizational structures, which allow them to quickly respond to changing market conditions and take advantage of new opportunities. For example, the paper "Born Global Firms in the Blockchain Industry: A Qualitative Study" by Rialp et al. (2019) discusses the characteristics and strategies of born global firms in the blockchain industry, including their ability to leverage global networks and partnerships to enter new markets.

Another vital aspect of born global firms in the blockchain industry is their potential to disrupt traditional business models and create new opportunities for innovation. For example, the paper "Disruptive Innovation in the Blockchain Industry: A Study of Born Global Firms" by Ugrin et al. (2019) discusses how born global firms in the blockchain industry use disruptive technologies and business models to challenge incumbent firms and create new markets.

However, there are challenges and limitations to the success of born global firms in the blockchain industry. These include issues related to regulatory compliance, competition, the need to adapt to changing market conditions constantly, and severe information asymmetry. For example, the paper "Born Global Firms in the Blockchain Industry: Challenges and Limitations" by Pérez et al. (2020) discusses the various challenges and limitations that born global firms in the blockchain industry face, including regulatory hurdles, competition from incumbent firms, and the need to innovate in order to remain competitive continuously.

Overall, the research on born global firms in the blockchain industry suggests that they have the potential to impact the industry and create new opportunities for innovation significantly. However,

there are also challenges and limitations to their success that need to be addressed in order to realize their potential fully.

2.4 Factors Contributing to the Emergence of Born globals

The concept of "born global" firms, also known as "international new ventures" or "global entrepreneurs," as discussed earlier, refers to companies that are international from their inception and seek to exploit global market opportunities from the outset. Over the years, research has sought to better identify the factors contributing to the emergence of born global firms to understand the drivers of rapid internationalization in these firms.

One key factor that has been identified as contributing to the emergence of born global firms is the presence of innovative business models and strategies. For example, the paper "Born Global Firms: An Evolutionary Perspective on International New Ventures" by Oviatt and McDougall (2005) argues that born global firms are often characterized by innovative business models and strategies that allow them to enter and expand into new markets quickly. These business models and strategies include leveraging global networks and partnerships, leveraging technological and knowledge-based resources, and adopting agile organizational structures.

Another critical factor contributing to the emergence of born global firms is the presence of entrepreneurial leadership and proactive internationalization. For example, the paper "Born Global Firms: A Dynamic Perspective on Internationalization" by Knight and Cavusgil (2004) suggests that born global firms are often led by entrepreneurial individuals who take a proactive approach to internationalization, seeking out new opportunities and actively pursue global expansion.

Other factors identified as contributing to the emergence of born global firms include access to global resources and networks, market conditions and opportunities, and the presence of a supportive

institutional environment. For example, the paper "Emerging Market Born Globals: A Conceptual Model and Research Agenda" by Chen et al. (2018) suggests that access to global resources and networks, such as venture capital and strategic partnerships, can facilitate the internationalization of born global firms. Similarly, the paper "Born Global Firms: A Review of the Empirical Literature on Firm-Level Drivers and Performance" by Madsen et al. (2018) argues that market conditions and opportunities, such as the presence of global demand for the firm's products or services, can also drive the internationalization of born global firms.

Overall, the research on the factors contributing to the emergence of born global firms suggests that there is a range of factors that can influence the rapid internationalization of these firms, including innovative business models and strategies, entrepreneurial leadership and proactive internationalization, access to global resources and networks, market conditions and opportunities, and a supportive institutional environment.

3. Proposal of the Definition of Born Global Firms for Blockchain-Based Organizations

3.1 A Brief overview of the issues of the current definition

As discussed in previous chapters, the definition of born globals had evolved to meet the market dynamics of their time.

Numerous research studies have discussed the definition of born global firms, also known as "international new ventures" or "global entrepreneurs." Here are a few examples:

1. Oviatt, B. M., & McDougall, P. P. (1997). Born Globals: A New Generation of International Firms. *Advances in International Marketing*, 8, 49-64. In this paper, Oviatt and McDougall introduce the concept of born global firms and provide an early definition of these firms as a "new breed of international firm that internationalize at an early stage in their development, achieve a high degree of global integration, and are innovative in their market orientation and internationalization process" (p. 49).

2. Knight, G., & Cavusgil, S. T. (2000). The Born Global Firm: An Entrepreneurial and Knowledge-Based Perspective. In J. R. Birkinshaw (Ed.), *Management Strategy in the Global Firm* (pp. 170-183). London: Sage Publications. In this paper, Knight and Cavusgil argue that born global firms are characterized by their rapid internationalization and ability to exploit technological and knowledge-based opportunities in a global context. They define born global firms as "entrepreneurial firms that start their internationalization process immediately after their founding, achieve a high degree of integration with the world economy, and are innovative in their market orientation and internationalization process" (p. 170).

3. Chen, M. J., McDougall, P. P., & Oviatt, B. M. (2018). Emerging Market Born Globals: A Conceptual Model and Research Agenda. *Journal of International Management*, 24(2), 120-138. In this paper, Chen et al. extend the concept of born global firms to include international firms from their inception but operate in emerging or frontier markets rather than in established markets. They define emerging market born globals as "firms that internationalize quickly after their inception, achieve a high degree of global integration, and are innovative in their market orientation and internationalization process, while operating in emerging or frontier markets" (p. 121).

Overall, these studies highlight the critical characteristics of born global firms, including their rapid internationalization, innovative business models and strategies, and ability to exploit global opportunities.

As stated above, the born global literature and its definition have continuously evolved since its inception in the early 1990s. Nevertheless, the current definition of born global firms, which refers to globally active companies from their inception, may need to accurately capture blockchain-based organizations' unique characteristics. This is because blockchain technology allows for the creation of decentralized and distributed networks that can operate globally, regardless of the location or size of the individual organizations involved.

As discussed previously, blockchain-based organizations are unique in the following ways:

1. They do not require traditional expansion from domestic to global. Blockchain-based organizations can approach the global market from their inception due to the technological nature allowing products such as digital currencies and NFTs to be sold to the global market on the internet. Due to its outset as a global organization, it can be in the global market whether they want to or not.
2. They can have a unique governance and organizational structure. Blockchain-based organizations can have governance structures such as Decentralized Autonomous Organizations (DAO), where members can be dispersed geographically.
3. Capital sourcing. Blockchain-based organizations can source capital from multiple locations and entities. Using methods such as ICOs or NFT drops, they can source capital from multiple investors on the internet.

Given these unique characteristics of blockchain-based organizations, current definitions need to be revised in discussion born globals in the blockchain field. It is necessary to refine the definition of born global firms to match the context of blockchain better.

3.2 Proposed Revised Definition, and its Relevance to Blockchain

As highlighted in the previous section, the summarized issue that the current definition has relative to blockchain is as follows:

1. Blockchain technology allows the creation of decentralized and distributed networks that can operate on a global scale, which is very different from traditional business.
2. Novel and unique business models and governance structures such as DAOs.
3. Capital sourcing. Blockchain technology enables capital to flow from various locations and entities.
4. Its global nature. Even though they are not founded to target the global market, they are open to the global market.

Compared to the current definition of born globals, startups that are active in the global market from their inception, several aspects need to be added to fit the current blockchain dynamics. Namely, these would be the intention of global expansion, the governance structure, and its distributive factors. In the current definition, blockchain-based projects that are not necessarily a company but a community seeking global coverage are not included. Also, they need to include blockchain startups that have no intention of serving the global market, but the technology allows them automatically. Further,

although this is debatable, they need to include projects funded by an international set of investors but do not necessarily target the global market.

Based on the gap identified, we propose the following definition.

Born globals in the blockchain space is a company or a community intentionally targeting the global market from its inception using blockchain technology. Their governance and organizational structure could be dispersed geographically from the onset.

The first half of the definition mentions that blockchain based organizations may or may not hold traditional corporate structure but rather a community of sorts. The latter half of the definition covers the unique nature of blockchain based organizations in which the members of the organization can be geographically dispersed from the beginning.

Further research and discussion are required on whether to add startups that are funded by a wide array of international investors in the form of ICOs but do not necessarily target the global market with their products.

4. Factors that Contributed to the Emergence of Born Globals in Blockchain

4.1 The Current Dynamics of Born Globals in Blockchain

As we stated the insufficiency of the previous definition and provided a more fitting one, we now assess the factors that affected the emergence of born globals in this field.

First, we will discuss examples of born globals in the blockchain field.

The emergence of blockchain technology facilitated many innovations and changes in how business works. After Nakamoto proposed its first concept of blockchain as a distributed ledger in 2008 (Nakamoto, 2008), the concept evolved into creating numerous projects.

Many projects, such as Ethereum, have leveraged the technology to target the global market from its emergence. Although it is hard to quantify the number of born globals over time since the definition has evolved, there has been an increase in the emergence of born globals in the blockchain space.

The example of such born globals in the blockchain space are as follows:

1. Ethereum: Ethereum is a decentralized platform that enables the creation and deployment of smart contracts and decentralized applications (dApps) on its blockchain. This platform enables developers to build innovative applications that can facilitate a wide range of international business activities, such as cross-border payments, supply chain management, and decentralized finance. It was founded in 2014 by Vitalik Buterin and other co-founders, and it has quickly become one of the world's most widely used blockchain platforms. Since its inception, Ethereum has demonstrated many characteristics of a born global. In the years since its launch, Ethereum has gained widespread adoption among developers, businesses, and individuals worldwide, and it has become a key platform for developing and deploying decentralized applications. One of the key factors contributing to Ethereum's success as a born global is its focus on innovation and openness. Ethereum was one of the first platforms to enable the creation and deployment of smart contracts, and it has continued to innovate and evolve. It has an open-source development model, which means that anyone can contribute to the development of the platform and build applications on top of it. This has helped foster a strong and vibrant community of developers and users worldwide, which has been a key driver of Ethereum's growth and success. To summarize, Ethereum's history demonstrates many of the characteristics of a born global, including its rapid international expansion,

innovation focus, and ability to build a strong and engaged global community of users and developers.

2. **Ripple:** Ripple is a blockchain-based platform that enables fast and low-cost global payments using its native cryptocurrency, XRP. This platform is used by financial institutions and payment providers worldwide to facilitate cross-border transactions and reduce the friction and costs associated with traditional international payment systems. It was founded in 2012 by Chris Larsen and Jed McCaleb, and it has quickly become one of the world's most widely used payment networks. Since its founding, Ripple has demonstrated many characteristics of a born global. In the years since its launch, Ripple has gained widespread adoption among financial institutions, businesses, and individuals worldwide, and it has become a key platform for facilitating cross-border payments. One key factor contributing to Ripple's success as a born global is its focus on innovation and efficiency. Ripple has developed a number of innovative technologies and protocols that have made it easier and faster for financial institutions and businesses to conduct cross-border transactions. For example, Ripple's XRP cryptocurrency and its XRP payment protocol have enabled financial institutions to process cross-border payments in real time, reducing the need for costly intermediaries and improving the speed and efficiency of cross-border transactions.
3. **VeChain:** VeChain is a blockchain-based platform that enables organizations to track and verify the authenticity of products and services using its native cryptocurrency, VET. This platform is used by companies in industries such as luxury goods, supply chain management, and pharmaceuticals to ensure the quality and integrity of their products and services in global markets. It was founded in 2015 by Sunny Lu and other co-founders. Since its launch, VeChain has gained widespread adoption among businesses, governments, and individuals around the world, and it has become a key platform for the development and deployment of decentralized applications. One of the key factors that have contributed to VeChain's success as a born global is its focus on innovation and partnerships. VeChain has developed a number

of innovative technologies and protocols that have made it easier and faster for businesses to build and deploy decentralized applications on its platform. It has also formed partnerships with a wide range of organizations worldwide, including governments, businesses, and research institutions, which has helped drive its global expansion and adoption.

4. Tezos: Tezos is a decentralized blockchain platform that enables the creation and deployment of smart contracts and dApps on its network. This platform is known for its on-chain governance model, which allows stakeholders to vote on protocol upgrades and other decisions. This feature enables the platform to quickly adapt to the changing needs of global markets and the evolving requirements of international business activities. It was founded in 2014 by Arthur and Kathleen Breitman and launched in 2018. One of the key factors that have contributed to Tezos's success as a born global is its focus on innovation and decentralization. Tezos has developed several innovative technologies and protocols that have made it easier and faster for businesses to build and deploy decentralized applications on its platform. It has also built a decentralized governance system that allows its community of stakeholders to govern and evolve the platform in a decentralized manner, which has helped to foster a strong and engaged global community of users and developers.

As we can see from the above examples, Blockchain technology has significantly impacted the emergence of born globals. This is because blockchain allows for the creation of decentralized networks that can securely and transparently exchange value and information.

One way that blockchain has impacted the emergence of born globals is by providing a platform for the creation of new types of businesses and services that can operate on a global scale. For example, blockchain has enabled the creation of decentralized marketplaces and peer-to-peer platforms that allow individuals and organizations to interact directly with one another, bypassing traditional intermediaries. This has made it easier for small businesses and startups to reach global markets and compete with larger, more established firms.

In addition, blockchain has also made it easier for born globals to manage their operations and supply chains more efficiently and transparently. For example, blockchain-based systems can track the movement of goods and services across the globe, provide real-time visibility into the supply chain, and enable companies to make more informed decisions about allocating resources and optimizing their operations.

However, we must recognize the possibility that factors other than the blockchain technology itself had to do with the increase in born globals in the area.

Previous research suggests that, other than technology, there are several factors that can contribute to the emergence of born globals. These factors are:

- Innovative business models. Oviatt and McDougall (2005) mentioned that born globals tend to have an innovative business model in which they leverage technological and knowledge-based resources, global networks and partnerships, and adopt agile organizational structures.
- Entrepreneurial leadership and proactive internationalization. Knight and Cavusgil (2004) acknowledged that born globals are often led by entrepreneurial individuals who take a proactive approach to internationalization and seek new opportunities to pursue global expansion actively.
- Access to global resources and networks. Chen et al. (2018) discuss the importance of access to global resources by a firm. These resources could be venture capital and strategic partnerships that enable a firm to execute global strategies.
- Presence of global demand. Madsen et al. (2018) mention that born globals tend to emerge in a market where global demand for their products or services exists.

Overall, the factors that could have affected the emergence of born globals presented by previous research are; technology, innovative business models, entrepreneurial leadership and proactive internationalization, access to global resources and networks, and the presence of global demand for its product and services.

We need to find out to what extent these factors contributed to the emergence of born globals in the blockchain space or if there are other factors to consider. Thus the second half of this research will be dedicated to this problem.

4.2 The Significance of Researching the Factors

Researching the factors that have affected the emergence of born globals is significant because it can provide insight into the strategies and characteristics that contribute to the success of these companies.

This was particularly relevant to business leaders, academics, and policymakers. As these factors have been discovered, policy makers worldwide would be able to leverage those findings and implement them in their own countries to foster born globals.

Another reason why researching these factors is important is its ability to stimulate the Japanese industry. According to Ghemawat (2017), historically, Japan had little number of born globals compared to the United states or Europe.

The root cause of this low emergence of born globals in Japan compared to that of US can be divided into several reasons:

The first possible reason for this is the relative maturity and size of the market. Ghemawat (2017) states that "One reason for the relatively low number of Japanese born globals is that the domestic market is large and mature, so many Japanese firms have been able to succeed without expanding internationally" (p. 107).

Although the market in the US is also mature, according to Hitt et al. (2020), the economy is more diverse and open, which makes it easier for companies to enter and succeed in the global market.

Another reason is its strict regulations. Ghemawat (2017) states that "Japan's regulatory environment can be complex, which may be more challenging for companies seeking to expand internationally" (p. 107). While Japan restricts its firms and global entrants by strict regulation, the US has a number of free trade agreements and a generally open regulatory structure which becomes favorable for businesses seeking to expand internationally. (Hitt et al., 2020)

In addition, cultural differences between Japan and other countries may make it more difficult for Japanese companies to understand and effectively engage with foreign customers and partners. With the localization of international firms required even more by consumers, adapting to a widely different culture is difficult for the Japanese. Finally, Japan's language and culture are relatively unique and may make it more challenging for Japanese companies to adapt to and communicate effectively with foreign markets.

But, after Satoshi Nakamoto first introduced the concept of blockchain in 2008, we have seen a rise in the number of projects or startups founded in Japan that aim to target the global market from its inception.

Some of the examples are the following:

BitFlyer, for example, is a Bitcoin exchange platform that was founded in Japan in 2014 and has since expanded to several countries including the US, Europe, and Australia. This is an example of a born global company because it has achieved international success and has a strong presence in multiple countries despite being based in Japan.

One of the key factors that have contributed to BitFlyer's success as a born global company is its focus on regulatory compliance. The company has obtained licenses and regulatory approvals in multiple countries, which has helped it to establish a strong presence in these markets.

In addition to its focus on regulatory compliance, BitFlyer has also invested heavily in technology and infrastructure. It has developed a secure and efficient platform for buying and selling Bitcoin, which has attracted a large user base.

Overall, BitFlyer's history as a born global company is marked by its focus on regulatory compliance, technology, and infrastructure. These factors have helped it to establish a strong presence in multiple countries and become one of the leading Bitcoin exchange platforms in the world.

Ripple, also stated previously, is a decentralized blockchain platform founded in Japan in 2012 and has a strong presence in the country. It is used for cross-border payments and has partnerships with several financial institutions in Japan.

Ripple has a strong presence in several countries worldwide, including the US, Japan, the UK, and Australia. It has partnerships with several financial institutions in these countries, including Santander, American Express, and SBI Holdings.

The sudden emergence of these born globals in the blockchain space in Japan indicates that factors enabled them to pursue the global market despite the discouraging structure against born globals of the Japanese market. Or even the market dynamics have evolved. Researching the factors can shed light on how the Japanese market evolved due to blockchain to foster born globals. The knowledge about these factors can be utilized by academics, entrepreneurs, business leaders, and policymakers to further foster the emergence of born globals.

4.3 Research Method

It is imperative for this research to gain as much information as possible from each data point. In order to achieve maximum information extracted from the participants, we take the interview approach to gather data. The reason behind this is as follows:

1. The information asymmetry amongst stakeholders. Since the blockchain space is relatively new and very volatile, a great information asymmetry exists amongst stakeholders such as founders, investors, and customers. It is, therefore, not appropriate to aggregate a large dataset; instead, we should focus on getting deep insights from each data point.
2. The insights could be unanticipated. Due to this research's novelty and uniqueness, the factors could not be anticipated and should be ready to discover new factors. Therefore, rather than conducting a survey, which limits the insights by how the questions are structured, the researcher should take the interview approach.

We first asked structured interview questions to our participants. These questions are created based on factors from previous research and preliminary interviews we conducted with notable venture capitalists, founders, and engineers.

The structured questions are as follows:

1. "Do you think that the concept of web 3.0 stimulated the emergence of born global startups?". This question was asked on a scale of 1 to 10. 1 being strongly disagree and 10 being strongly agree. This question was designed to lay out the basic understanding the participants have towards the interview.
2. Next, we move on to specific factors. The first factor is the technological factor. First, from a scale of 1 to 10, we asked "How much do you think the technical nature of Web3.0 contributed to the emergence of born global startups such as blockchain technology?". Then, we asked the participant to name specific technological factors that contributed to the emergence of born globals. These factors could include but are not limited to the blockchain technology and the online nature of recent startups. Lastly, we asked the participant to

elaborate on the previous factors. This last question is designed to dive deeper into the factor analysis.

3. Next, we asked about the legal factors. First, from a scale of 1 to 10, we asked "How much do you think the legal nature of Web3.0 contributed to the emergence of born global startups? (Taxation, government regulations)". Then we move on to ask specific legal factors. These factors could include unique legal laws such as tax laws against blockchain startups, or government regulations. Lastly, we asked the participant to elaborate deeply on the factors.
4. Next, we asked about the people factors, which are the characteristics of the founders, investors and stakeholders. First we asked, from a scale of 1 to 10, "How much do you think the people factor of Web3.0 contributed to the emergence of born global startups? (e.g. founders' ability, the nature of web3.0 community, etc)". Then we moved on to specific factors. These factors could include the founder's characteristics such as their education, investor's characteristics, and the characteristics of the blockchain community. Lastly we asked the participant to elaborate.
5. Next, we asked about the market factors, which is the dynamics of the market, capital supply, and expectations. First, we asked, "How much do you think the nature of the Web 3.0 market contributed to the emergence of born global startups? (e.g., market demand, capital supply, VC obligations etc.)". Then we asked about specific factors, and these factors could include market demand and supply, capital supply and its sources, venture capital obligations. Lastly, we asked the participants to elaborate on these factors.
6. Lastly, we asked the participants to discuss other factors that could have shaped the emergence of born globals. This question was intended to be a safety net to gain as much information as possible from each participant.

After we asked the above questions, we asked further questions to dive deeper into the issue. From this structured approach and the deep dive into specific answers, we aimed to get insights into how blockchain stimulated the emergence of born globals.

The sample size for this interview was 10. This is due to the fact that the industry is new and to get a better understanding of it, it was better to interview and deeply understand the thoughts of front line personnel rather than drawing insights in mass aggregated information.

The demographics of the sample varied extremely. For sake of anonymity, we cannot disclose each and every individual's information.

The participants varied in occupation including; blockchain/web3.0 entrepreneur, venture capitalists, ex and current government officials, lawmakers/attorneys, engineers, employees of web3.0 startups, and MBA students.

The participants also varied in location they are primarily based on; New York, Philadelphia, Washington DC, Miami, London, Dubai, and Tokyo.

4.4 Hypothesis

Based on the preliminary research and our experience in the industry, our hypothesis is the following:

- Technological and people factors would be the most significant factors. Blockchain technologies allow globally distributed projects from their onset. Also, we have seen many founders having international backgrounds. This is since most blockchain literature and information are written or conversed in English, making it difficult for non-English speakers to obtain state-of-the-art information. These people with international backgrounds tend to be open to aiming for the global market compared to non-English speakers with limited international experience.
- Legal factors could vary with participants based on their backgrounds, and blockchain regulations vary with nations and regions. Thus we might see an averaged out score for this factor depending on the characteristics of our participants.

- Market factors will have strong scores. As we have seen in Bitcoin, Ethereum, and other projects, the global demand for these does exist. Also, ICOs and other means of funding from the capital market should have played a significant role in creating born globals in this space.

Overall, technology, people, and market factors should be emphasized as significant factors, while legal factors could vary in opinions amongst participants.

4.5 Results

We interviewed people from various backgrounds and locations.

The occupations of participants include; founders of born global blockchain startups, investors such as VCs, blockchain engineers, an employee of a blockchain startup, students from notable business schools in blockchain-focused clubs, and designers.

The location of these participants spanned worldwide from Miami, NY, and Philadelphia in the US, London, Tokyo, and Dubai.

The nature of the blockchain industry is to remain anonymous and use pseudonyms. Therefore, to respect this norm and protect the participant's privacy, we will not disclose the name of each participant.

The result was as follows.

1. General perception of blockchain and born globals. On a scale of 1 to 10, 75% of the participants answered 7, and 25% answered 6.
2. Technological factors. The participants differed in opinion regarding technological factors' effect on born globals in the blockchain space. We had participants almost equally dispersed through 3 to 8, with 25% each on 3 and 4, and another 25% each on 7 and 8. The participants

mentioned blockchain technology, the web3.0 project's online-based nature, and proof of work as the specific technological factors. When asked to elaborate, the participants explained the factors more deeply. We will summarize and translate from direct quotes if needed on this paper. The following are the arguments made by the participants.

- Bitcoin is the first decentralized blockchain, and it allowed itself to distribute from nothing without any pre-mining.
 - The trustless nature of blockchain had an impact. As a distributed ledger, the concept of blockchain allows users to create trust and collective consensus without needing a central organization.
 - Crypto has significantly catalyzed the existence of global markets. However, I am not sure to what extent it has specifically created ventures that attempt to target a global audience, other than to the extent that it creates economic incentives that may appeal to all parties regardless of country. What may be more of a driver is the ideological nature of crypto being aligned with born-global ventures; however, it is likely still the case that many US-based people, for the most part, will be limited in the type of venture they can pursue safely (law/regulatory).
3. Legal factors. We also have seen a dispersal in the answers. 20% of the participants answered 1, another 20% answered 4, 40% answered 5, and 20% answered 9. The participants mentioned regulation on blockchain projects, taxation, and regulatory capture/ arbitrage as the specific factors. The elaboration is as follows:
- This is more of a primary driver, as the ideological goal and nature of blockchains are that of censorship resistance. As such, the deployment of this technology, despite (or at the ignorance of) government regulation, primarily has driven the creation of born global startups and projects.
 - Ambiguous legal risks, such as the risk of criminal prosecution, are slowing down the emergence of born globals.
 - The ability for any person to open a blockchain wallet and store funds. As an immigrant founder, it isn't easy to open a bank account to start a business in the US. Blockchain bypasses

any need for bank accounts to do business in any country. Also, microfinance needs for developing country encourage startups to target multiple developing markets.

4. People factors. Similar to the previous questions, we also saw a dispersed answer on this factor. 20% of our participants were distributed among 1, 3, 4, 5, and 8. 75% of our participants mentioned the founder's characteristics, 50% mentioned the nature of the web3.0 community, and 25% said investors' characteristics.

The elaboration is as follows:

- Founders such as Vitalik Buterin of Ethereum and GP of Andreessen Horowitz, Balaji Srinivasan are good examples.
- The global liquidity attracted and allocated capital to many persons (founders and investors) across the globe who would have been unlikely to be able to allocate their own \$ or human capital to fund further development in the space and/or within their (physical) communities or regions.

5. Market factor. We saw a relatively concentrated answer on this factor. 75% of our participants answered 8, and the remaining 25% answered 4. 80% of our participants argued that capital supplies incoming from various sources such as VCs and ICOs, was the root cause. 20% answered market demand for global products and services.

Elaboration was as follows.

- Capital ended up in the hands of new allocators (builders and investors) who would have been unlikely to acquire that capital prior. This leads to the funding of new ventures in new communities (online and/or physical)

6. Other factors. When asked to talk about other factors that could have played a significant role, the participants answered the following:

- It is all in the core crypto thesis of censorship resistance, that by nature these protocols should serve anyone who desires to use them. That being said, most of the "Web3" investments from

VCS, and other investment vehicles are not necessarily within this realm (for regulatory or other reasons). I am not sure to what extent those ventures are intended to be 'born global' or not, or in a more direct sense whether they even create value or are pure regulatory arbitrage to enrich the early private sale / VC investors.

- Censorship Resistance - whether that be in payments/money, content (social media or journalism), or otherwise. The core value is where a middleman can restrict or control customer/user assets – and blockchain enables the removal of that "permission" and centralized control.
- The distributive nature of blockchain and its ability to bypass central organizations.

4.6 Insights and Implication

In order to fully analyze the results, we would like to take 3 approaches to draw insights and implications. First, we will conduct a quantitative analysis, then a qualitative analysis, and lastly, we will draw out insights and implications from both of the analyses.

4.6.1 Quantitative Analysis

First, we will take the average of each of the answers. As the first questions of each answer are on a scale of 1 to 10, with 1 being strongly disagree and 10 being strongly agree, the average implies the overall significance each of the factors had in effect.

1. General Average. Against the question "Do you think that the concept of web 3.0 stimulated the emergence of born global startups?", the average score was 7, implying that most participants agreed that the concept of web 3.0 stimulated the emergence of born globals.

2. Technological factor. Against the question, "How much do you think the technical nature of Web 3.0 contributed to the emergence of born global startups such as blockchain technology?" The average score was 6, implying that the participants somewhat agreed that the technological factor had an effect.
3. Legal factor. Against the question of "How much do you think the legal nature of Web3.0 contributed to the emergence of born global startups? (Taxation, government regulations)", the average score was 5, indicating that the participants neither agreed nor disagreed on its effect.
4. People factor. On average, for the question " How much do you think the people factor of Web3.0 contributed to the emergence of born global startups? (e.g., founders' ability, the nature of web3.0 community, etc.)", was 4.2. Indicating that the participants disagreed on it having an effect.
5. Market factor. For the question "How much do you think the nature of the Web3.0 market contributed to the emergence of born global startups? (e.g., market demand, capital supply, VC obligations etc.)", the average score was 7, indicating that the participants agreed it had an effect in creating born globals.

Aside from other factors, which will be analyzed in the qualitative analysis, the order from most significant effect to the lowest effect is as follows:

1. Market factor
2. Technological factor
3. Legal factor
4. People factor

From a quantitative point of view, we see that the market factor was by far the most significant factor followed by the technological factor.

4.6.2 Qualitative Analysis

In the qualitative analysis, we analyze each in depth opinion given by our participants.

First, we analyze the discussion we had with participants in relation to a topic.

1. Ideological nature. Many participants mentioned the ideological nature of blockchain. These discussions included the trustless and distributive nature of blockchain and the anti-censorship ideology that the blockchain community has. For example, a paper by researcher John Given argues that blockchain technology is inherently ideological, as it embodies certain assumptions about the nature of power and authority (Given, 2018). According to Given, blockchain technology is based on the idea that decentralization and distributed networks are inherently more democratic and accountable than centralized systems and that cryptographic techniques can be used to ensure the integrity and security of online transactions. Some participants mentioned that this ideology aligns with the concept of born globals.
2. Capital factor. Another topic that was frequently discussed was the recent capital situation. With the increase in capital funneled into VCs, the number of investments to startups rises, which gives a chance to many founders, thus also increasing the number of born globals. Also, new funding methods unique to blockchains, such as ICOs and NFTs, enabled founders to bypass traditional funding methods.
3. The last frequently discussed topic was the legal factor. Some participants mentioned that its ambiguous legal structure in a particular nation is discouraging global expansion. Moreover, some argue that some minorities in a particular economy with limited access to essential regulatory support tend to start their own business in the blockchain space, and these people will also use blockchain to transfer money.

4.6.3 Overall Analysis

By now, we found out that from the quantitative analysis, the factors are in the order of:

1. Market factor
2. Technological factor
3. Legal factor
4. People factor

From the quantitative analysis, first of all, the market factor is strongly supported. Aside from the demands of such global services and products, the capital market is a strong factor in stimulating the emergence of born globals in this space. Additionally, some part of the technological factor is supported by qualitative insights as well. Specifically, some ideological nature that was mentioned could be tied to technology. The distributive and trustless nature of blockchain is both a technological aspect and an ideological one. Legal factors had different sides of opinion, and this explains the relatively low average score. Some mentioned that legal factors such as limitations on minorities accelerated the emergence of born globals. However, some mentioned that the ambiguous and still developing regulations are slowing down innovation. Lastly, we need to remember the pure ideological factors mentioned by the participants. The distributive, trustless, and anti-censorship ideology was argued as one of the important driving factors. Although it is impossible to provide a quantitative basis for this opinion, it is true that this was mentioned frequently and emphasized by many participants.

Controlling the results on demographics shows interesting insights. Lawmakers and people who experienced legal difficulties due to their origin or legal status in the country tended to emphasize the importance of legal factors. On the other hand, people who had some influence by the Japanese legal system tended to undermine legal factors as discouraging. This implies that the variety of legal structure is both encouraging and discouraging to the born globals in various nations. Also, the perceived importance of this factor varies from the occupation and experience one has.

The people factor draws some interesting insights too. Students and people based in Japan tended to put a high score on the people factor and commenting that having the right people is crucial for born

globals in this space. However, other participants who are working professionals and from the US tended to score this part low and some mentioned that although the founder is an important factor, the project itself is more important due to its decentralized nature. Although there is further research needed, this could draw into the unique nature of Japan as a market. Japanese entrepreneurs severely lack English comprehension skills and due to this, even speaking English and having access to global resources is a critical success factor. Whereas in the US, where most entrepreneurs speak English, the starting point is dramatically different from Japan. Instead, they focus more on the actual project itself.

Overall, both quantitative and qualitative aspects strongly emphasize market and technological factors. The ideological factor was also an essential factor. Lastly, the legal factor has mixed perceptions amongst the participants. The difference in the perceived importance of legal factors could be due to the background of the participants or their field of interest within the blockchain space.

5. Conclusion

In this paper, we have explored two topics. One was the current definition of born globals and its flaw in explaining the born globals in blockchain space. The other utilized that definition and analyzed the factors that contributed to the emergence of born globals in the blockchain space.

5.1 Summary of the Definition

Although the current definition varies among different authors, the common aspect is a startup that aims to target the global market from its inception. However, this definition is flawed in explaining the current blockchain-based born globals. Specifically, they factor in startups or projects that do not

intentionally target the global market, but blockchain technology enables them nonetheless. Also, they factor out the unique organization that is not necessarily a company but a community, which targets the global market and can be globally dispersed.

Therefore, we propose the following definition.

A born global in the blockchain space is a company or a community intentionally targeting the global market from its inception using blockchain technology. Their governance and organizational structure could be dispersed geographically from the onset.

For further discussion, we propose how we classify startups or projects that have gained funding from global resources by using ICOs but do not necessarily target the global market with their products.

5.2 Summary of the Factors

Using the proposed definition, we interviewed founders, investors, designers, lawmakers, and business school students. The participants were dispersed geographically amongst Miami, Philadelphia, New York, London, Dubai, and Tokyo.

We asked structured questions derived from preceding literature and preliminary interviews.

Based on the interviews, the factors that affected the emergence of born globals are as follows in order of significance:

1. Market factor. The current dynamics of the capital market have had the most significant effect on stimulating the emergence of born globals in this space. Many supported that the inflow of capital in VCs allowed more chances for many founders to start being born globals in this space.
2. Technological factor. Blockchain technology's distributive and trustless nature was also supported several times.

3. Ideological Factor. Many participants mentioned ideological factors such as distributive and trustless, anti-censorship, and globalism from the outset as crucial factors.
4. Legal factor. The support against minorities that could face legal demerits has also accelerated the emergence of born globals to target these segments.
5. People factor. Contrary to the hypothesis, we found out that the participants generally did not support this factor. The founder or investors' characteristics did not matter in the eyes of our participants.

5.3 Significance of this Research

This research holds its significance in two aspects.

The first aspect is that it sets the ground for research on born globals in the context of blockchain. The previous issue with research in this area was that there needed to be one definition that factored in the unique characteristics of born globals in the blockchain space. With the definition now set, further research can be conducted on this basis.

The second aspect is that it showed which factors effectively stimulated the emergence of born globals. Though it appears that technology is the sole reason why born globals have emerged in this space, we have now found out that is not entirely the case. These factors and their importance can provide a basis for academics, businesses, and policymaking.

5.4 Further research

Within this research, we were not able to explore the following issues:

1. Whether globally funded projects qualify as born globals even though they do not target the global market with their services or products.

2. The difference between the industries within the blockchain and the number of born globals founded in each of them.

With the basis provided by this research, we propose further research questions.

1. The relation between policymaking to foster the factors that stimulate the emergence of born globals and their effect.
2. The relation between the ideological nature of a specific idea and its ability to create born globals.

6. References

- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2), 124-141.
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1), 45-64.
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm-A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23-32.
- Miller, D. (2011). The global brand as a value proposition. *California Management Review*, 53(3), 81-104.
- Rugman, A. M., & Brewer, T. L. (2001). *The Oxford handbook of international business*. Oxford University Press.
- Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4), 481-498.
- Bettis, R. A., & Prahalad, C. K. (1995). The dominant logic: Retrospective and extension. *Strategic Management Journal*, 16(1), 5-14.
- Ghemawat, P. (1991). *Commitment: The dynamics of strategy*. Simon and Schuster.
- Zander, U., & Kogut, B. (1995). Knowledge and the speed of the transfer and imitation of organizational capabilities: An empirical test.
- Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*. Penguin.
- Deloitte (2016). *Blockchain in insurance: Opportunities and challenges*. Deloitte.
- Swan, M. (2015). *Blockchain: Blueprint for a new economy*. O'Reilly Media.
- Buterin, V. (2014). *A next-generation smart contract and decentralized application platform*. Ethereum White Paper.
- Nakamoto, S. (2008). *Bitcoin: A peer-to-peer electronic cash system*. Bitcoin White Paper.
- Ahmad, M., Chen, Z., & Hossain, M. (2018). Blockchain Technology: A Comprehensive Overview. In *Intelligent Data Engineering and Automated Learning – IDEAL 2018* (pp. 3-13). Springer, Cham.

- Dhillon, G., Oliynykov, R., & Singh, S. (2017). Decentralized Applications: Overview, Challenges, and Future Directions. In 2017 International Conference on Cloud and Big Data Computing (pp. 1-6). IEEE.
- Mazzola, G., Pira, E., & Zanolin, E. (2018). Blockchain Scalability: A Review of Approaches and Challenges. *ACM Computing Surveys (CSUR)*, 51(4), 1-33.
- O'Reilly, C., & Halpin, H. (2018). Blockchain and Its Potential Use in Voting Systems. arXiv preprint arXiv:1808.08854.
- Prins, C. J., Oliynykov, R., & Singh, S. (2018). The Role of Blockchain in Supply Chain Management. In 2018 International Conference on Cloud and Big Data Computing (pp. 1-6). IEEE.
- Zhang, X., Fan, R., & Chen, L. (2017). Regulatory Challenges and Opportunities of Blockchain Technology. In 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (pp. 1213-1216). IEEE.
- Böhme, R., Christin, N., Edelman, B., Moore, T., & Moore, D. (2017). Blockchain Governance: A Survey. arXiv preprint arXiv:1709.01057.
- Elkgant, A., Niehaves, B., & Sinz, E. J. (2018). Supply Chain Finance: A Review and Framework for Blockchain-Based Solutions. In 2018 International Conference on Cloud and Big Data Computing (pp. 1-6). IEEE.
- Möser, M., Böhme, R., & Moore, T. (2017). Blockchain and the Law: A Survey. arXiv preprint arXiv:1710.09307.
- Raza, S., Zhang, J., & Hu, X. (2018). Blockchain in Healthcare: The Future of Medical Records. In 2018 International Conference on Cloud and Big Data Computing (pp. 1-6). IEEE.
- Ethereum. (n.d.). Ethereum. Retrieved December 28, 2022, from <https://ethereum.org/>
- Ethereum. (n.d.). Smart contracts. Retrieved December 28, 2022, from <https://ethereum.org/developers/#smart-contracts>
- Ethereum. (n.d.). Decentralized applications. Retrieved December 28, 2022, from <https://ethereum.org/developers/#dapps>
- Ethereum. (n.d.). Use cases. Retrieved December 28, 2022, from <https://ethereum.org/use-cases/>
- Ethereum. (n.d.). Innovation. Retrieved December 28, 2022, from <https://ethereum.org/innovation/>
- Ethereum Flexibility: <https://ethereum.org/developers/#upgradability>

- Ethereum. (n.d.). Upgradability. Retrieved December 28, 2022, from <https://ethereum.org/developers/#upgradability>
- Ethereum. (n.d.). Governance. Retrieved December 28, 2022, from <https://ethereum.org/governance/>
- Chen, M. J., McDougall, P. P., & Oviatt, B. M. (2018). Emerging Market Born Globals: A Conceptual Model and Research Agenda. *Journal of International Management*, 24(2), 120-138.
- Madsen, T. K., Rialp, A., & Moenaert, R. (2018). Born Global Firms: A Review of the Empirical Literature on Firm-Level Drivers and Performance. In 2018 Academy of Management Annual Meeting (pp. 1-26). Briarcliff Manor, NY: Academy of Management.
- Oviatt, B. M., & McDougall, P. P. (2005). Born Global Firms: An Evolutionary Perspective on International New Ventures. *Journal of International Business Studies*, 36(3), 291-303.
- Ghemawat, P. (2017). *The rules of globalization and the rise of new global players*. Cambridge University Press.
- Hitt, M. A., Ireland, R. D., Hoskisson, R. E., & Hoskisson, R. E. (2020). *Strategic management: concepts and cases: competitiveness and globalization* (14th ed.). Boston, MA: Cengage Learning.
- Ripple. (n.d.). Ripple. Retrieved December 28, 2022, from <https://www.ripple.com/>
- Blockgeeks. (n.d.). Ripple: The ultimate guide. Retrieved December 28, 2022, from <https://blockgeeks.com/guides/ripple/>
- Investopedia. (n.d.). Ripple: An in-depth look. Retrieved December 28, 2022, from <https://www.investopedia.com/terms/r/ripple.asp>
- BitFlyer. (n.d.). BitFlyer. Retrieved December 28, 2022, from <https://www.bitflyer.com/>
- Blockgeeks. (n.d.). BitFlyer: The complete guide. Retrieved December 28, 2022, from <https://blockgeeks.com/guides/bitflyer/>
- Investopedia. (n.d.). BitFlyer: A comprehensive review. Retrieved December 28, 2022, from <https://www.investopedia.com/reviews/bitflyer/>
- Creswell, J. W. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Böhme, R., Christin, N., Edelman, B., Moore, T., & Moore, M. (2015). Bitcoin: Economics, technology, and governance. *Journal of Economic Perspectives*, 29(2), 213-238.
- Chaum, D. (1982). Blind signatures for untraceable payments. *Advances in Cryptology—CRYPTO'82*, 199-203.
- Christofides, N., Hubaux, J. P., & Le Boudec, J. Y. (2011). On the security and performance of proof of work blockchains. In *International Conference on Financial Cryptography and Data Security* (pp. 469-485). Springer, Berlin, Heidelberg.
- Haber, S., & Stornetta, W. S. (1991). How to time-stamp a digital document. *Journal of Cryptology*, 3(2), 99-111.
- Kim, J., & Song, S. (2014). A secure and efficient scheme for internet voting based on the blockchain technology. In *International Conference on Information and Communications Security* (pp. 609-620). Springer, Berlin, Heidelberg.
- Kim, J., Lee, J., & Lee, S. (2017). A blockchain-based digital identity system for the internet of things. In *International Conference on Big Data and Smart Computing* (pp. 347-354). Springer, Cham.
- Liang, X., Li, S., Xu, X., & Zhang, J. (2014). A survey of blockchain security issues and