



## A REVIEW OF THE ACHIEVEMENTS IN TECHNOLOGICAL INNOVATION DESPITE DEBATE, EMPHASIZING ITS CONSEQUENCES FOR MANY CHINESE ORGANIZATIONS

<sup>1</sup>JIN HUAN, <sup>2</sup>Divya Midhunchakkaravarthy

### Abstract

Internationalization is a relatively new phenomenon among small and medium-sized enterprises (SMEs), and it has given rise to a new subset of these companies called Born Global. The Born Globals from wealthy nations like China have received an inordinate amount of attention from scholars. Nonetheless, many Born Globals may be found in both established industrial sectors and developed nations like China, according to the generally acknowledged Born Global notion. The Chinese manufacturing company Born Globals and its worldwide expansion were the primary foci of the researchers' attention. They are intrigued by the internationalization goals, tactics, and success factors of Born Global, a Chinese manufacturing company. All three areas may be theoretically grounded in it, thanks to its drawing on Born Global theory's pillar works in traditional Chinese literature. Their study also includes some comparisons of Chinese literatures. This article made use of a quantitative case study approach. Based on their criteria, the researchers have chosen two Chinese Born Globals manufacturing companies to serve as case studies. The primary means of gathering information were surveys and Skype interviews. Consistent with the theoretical element's structure, the empirical finding component is provided after the required transcribing step. Some intriguing findings came out of the analytical section. Born Globals is a manufacturing firm based in China that is making plans to grow globally for many reasons. A few examples include capitalizing on advantageous legislation specific to China, boosting profitability, and avoiding local competition.

**Keywords:** *Technologies Adoption, the Financial Impact of Technological Development, Government Regulations Regarding Information Technology, Digital Transformation, Chinese Organizations.*

### Introduction

The rapid economic development of China has astounded the world since the commencement of the reform and openness policy in the late 1970s. At the moment, China's economy is the world's second biggest, but experts predict that it will overtake China's in a few years. The rise of large, internationally competitive Chinese corporations is another benefit of China's booming economy (Asongu & Odhiambo, 2020). In addition, as a result of a robust, state-led initiative to become a world leader in technology, China has seen an enormous increase in the number of successful domestic IT companies. The opinions on Chinese IT companies are somewhat divisive. Some claim they only mimic American concepts and produce inferior replicas of them, while others argue that they are really inventing superior products. China is home to nine of the twenty biggest internet firms and eleven more. Huge gaps persist between the past and present of these massive Chinese IT companies and their foreign rivals. There is a much larger disparity here. Everybody with a smartphone or computer linked to Wi-Fi throughout the world is familiar with Chinese global enterprises, even though the majority of Chinese IT companies target the local Chinese market and Southeast Asia. Given the current state of globalization, when forming a multinational firm does not always need years of waiting, this essay tackles the following research issue. The "domestic demand condition" refers to the amount and quality of domestic individuals and institutions, as well as their buying power, in connection to the firm's products. Businesses have a greater chance of expanding



their customer base and reaping the benefits of economies of scale in a home demand environment if this is the case. The inverse is also true: as home markets shrink or become more limited, companies have no choice but to expand internationally. The analysis shows that nations with smaller domestic markets are more likely to have global enterprises than those with bigger ones. Companies, regardless of their nationality, are required to cater to customers worldwide because of Born Global's focus on niche markets. Evidence from a number of Asian case studies supports this. Even if individuals have the financial means to buy, cultural factors may be limiting the domestic market's potential. The company Born Global, which makes genital goods, was founded by them to do this. As soon as it opens for business, this kind of organization starts exporting most of its commodities since it violates China's long-standing values (Khudhair et al., 2021).

### **Background of the study**

As a result of the rising significance of global economic integration and new commercial endeavours, an increasing number of companies are extending their activities abroad in pursuit of worldwide opportunities. The enormous financial resources of large multinational companies (MNCs) have long been the focal point of discussions on the dynamics of international trade (Panetta, 2021). Multinational corporations (MNCs), as these long-held notions have it, often start in domestic markets before progressively growing those abroad, using resources such as foreign market experience. Nevertheless, there was a surge of activity following the 1980s, when companies started to expand internationally, due to advancements in information and Internet technology, changes in market dynamics (like the rise of specialized market structures), and the acceleration of global economic integration. A new category of global projects has emerged within the last few decades. Companies that were born within globalization stood in stark contrast to the multinational corporations portrayed in more conventional conceptions of globalization due to their extensive use of foreign money, technology, human resources, and markets. Scholars were attracted by this contrast and were interested in their early internationalization and international perspective. The common understanding is that a "Born Global" firm is one that "strives to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries" right from the outset. "International new venture" is another way of putting it. In contrast, businesses that began exporting within three years of their inception and were created after 1976 may be quantitatively defined as Born Global. International sales accounted for a minimum of 25% of their total income. Not only have that, but a lot of other academics blended the two schools of thought. Companies having a genuinely global reach often cater to niche markets with one-of-a-kind offerings. Companies that fall under the "Born Global" category often operate in the information technology sector and are known for their creative approaches to product development. In contrast to Born Global's rapid internationalisation, the conventional wisdom is that expanding into new markets and operations abroad takes time, a lot of trial and error, and a lack of gradualness. Given the incredible success of Born Global enterprises, several experts in the field are questioning its utility and trustworthiness. Due to the complexity of the event, no thorough theoretical models or explanations of Born Global's internationalization process exist (Gómez-Barroso & Marbán-Flores, 2020).

### **Purpose of the research**

The researcher's overarching goal is to have a better understanding of how Born Global absorbed Chinese manufacturing techniques. Instead of fleeing the country because of a lack of opportunity, Born Global actually confronts a massive domestic market in China's industrial sector, contrary to widespread assumption in China. Their interest in Born Global's



internationalisation stems from their status as a Chinese manufacturing company with a heavy hand in global production. This area of study finds Born Global's internationalisation process fascinating. An impressive Chinese manufacturing company called Born Global has been rapidly expanding its operations throughout the world. Plus, they want to know how these Chinese manufacturing companies, Born Global, are expanding internationally. If there is a certain stage for their internationalization operations, they would want to hear about it. They are also investigating the causes of the Born Global movement inside these Chinese manufacturing enterprises.

## Literature review

International new ventures, sometimes known as high tech start-ups, are businesses that engage in global thinking from the beginning, form partnerships with individuals who do not possess the requisite skills and thereafter expand swiftly into distant markets spanning several countries (Thiebaut, 2019). These companies are often referenced in empirical studies. According to the research, an international new venture is a startup that is still in its early stages but has global ambitions and intends to employ resources to sell its products in other countries. According to this criterion, age and value provided are more important. Some businesses, frequently called high-tech organizations, may have items that are so advanced that they may begin internationalising immediately. While the latter is more narrowly focused, the former provides a more comprehensive history of INVs. The quantitative definition of a "Born Global" company is one that began exporting within three years of its creation, had 25% or more of its revenues come from outside the country, and was formed after 1976. However, these explanations do have certain shortcomings. Most of the Chinese researchers. A more precise definition is required, while existing ones suffice. A self-sustaining business with global sales potential and the ability to swiftly develop globally thanks to the founders' skills is what they call an International New Venture. For this reason, their research relied on the following definition, which emphasized numerical viewpoints: In order to be deemed "Born Global," a firm must have reached a foreign sales volume of 25% or more within three years of its creation and have intentions to gain a significant competitive advantage via the use of resources and sales of outputs in many countries. Born Global has never seen foreign markets as supplementary to its domestic market; rather, it has always viewed the whole world as its marketplace. Second, within two years of establishment, Born Global begins exporting things. By the conclusion of the first quarter, exports constitute 25% of total sales. The term "Born Global" is most often used to describe a small company that has made a huge improvement in a process or technology. A lot of these producers also have an entrepreneurial mentality, so they could have some fresh perspectives or methods they're keeping under wraps. Products sold by Born Global often have a high level of value addition and are mostly used in industrial applications. Some Born Global seem to be Chinese IT companies, according to their research. Oftentimes, these companies will use popular technologies. In comparison to their domestic sales, their exports have increased at a much faster rate, and their growth rates have been higher overall. They often aim for a worldwide niche market rather than creating custom items. Born Globals in the information technology and specialty sectors supposedly call Sweden home. But practically every Chinese company surveyed by Born Global cited superior customer service and product quality as a reason for their success. Most of them work in industries with stringent standards and manufacture goods in very specific domains. Many of those people aren't even particularly computer smart (Wang et al., 2022).



## Research question

- How does the consequence of Database Management on Chinese businesses?

## Research methodology

### Research design:

Using SPSS version 25, the quantitative data analysis was carried out. To determine the direction and strength of the statistical association, the odds ratio and 95% confidence interval were used. A criteria that is statistically significant was established by the researchers at  $p < 0.05$ . The data's essential features were extracted using a descriptive analysis. When analysing data transformed by computing tools for statistical analysis or data collected from surveys, polls, or questionnaires, quantitative methods are often used.

### Sampling:

Research participants filled out questionnaires to provide information for the research. Using the Rao-soft programme, researchers determined that there were 937 people in the research population, so researchers sent out 1043 questionnaires. The researchers got 1019 back, and they excluded 31 due to incompleteness, so the researchers ended up with a sample size 988 of.

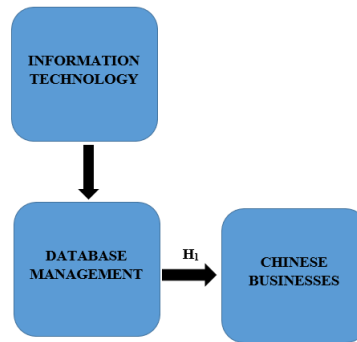
### Data and Measurement:

A questionnaire survey was used as the main source of information for the study (one-to-correspondence or Google-form survey). Two distinct sections of the questionnaire were administered: Both online and offline channels' (A) demographic information, and (B) replies to the factors on a 5-point Likert scale. Secondary data was gathered from a variety of sites, the majority of which were found online.

**Statistical Software:** The statistical analysis was conducted using SPSS 25 and MS-Excel.

**Statistical Tools:** To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyse the data using ANOVA.

## Conceptual framework



## Result

- **Factor Analysis**

One typical use of Factor Analysis (FA) is to verify the existence of latent components in observable data. When there are not easily observable visual or diagnostic markers, it is common practice to utilise regression coefficients to produce ratings. In FA, models are essential for success. Finding mistakes, intrusions, and obvious connections are the aims of modelling. One way to assess datasets produced by multiple regression studies is with the use of the Kaiser-Meyer-Olkin (KMO) Test. They verify that the model and sample variables are representative. According to the numbers, there is data duplication. When the proportions are less, the data is easier to understand. For KMO, the output is a number between zero and one. If the KMO value is between 0.8 and 1, then the sample size should be enough. These are the permissible boundaries, according to Kaiser: The following are the acceptance criteria set by Kaiser:

A pitiful 0.050 to 0.059, below average 0.60 to 0.69

Middle grades often fall within the range of 0.70-0.79.

With a quality point score ranging from 0.80 to 0.89.

They marvel at the range of 0.90 to 1.00.

Table1: KMO and Bartlett's Test Testing for KMO and Bartlett's

Sampling Adequacy Measured by Kaiser-Meyer-Olkin .980

The results of Bartlett's test of sphericity are as follows: approx. chi-square

df=190

sig. =.000

This establishes the validity of assertions made only for the purpose of sampling. To ensure the relevance of the correlation matrices, researchers used Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin states that a result of 0.980 indicates that the sample is adequate. The p-value is 0.00, as per Bartlett's sphericity test. A favourable result from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.



Table: KMO and Bartlett's

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.980
Bartlett's Test of Sphericity	Approx. Chi-Square	3252.968
	df	190
	Sig.	.000

Using Bartlett's Test of Sphericity further established the general relevance of the correlation matrices. The sample adequacy value according to Kaiser-Meyer-Olkin is 0.980. The researchers discovered a p-value of 0.00 by using Bartlett's sphericity test. The correlation matrix was shown to not be a correlation matrix by a significant test result from Bartlett's sphericity test.

#### ❖ Independent variable

##### • Information Technology:

A broad variety of physical equipment, including computers, storage, networking, and other infrastructure, are all part of what is known as "information technology" (IT) and used to generate, process, store, and disseminate various types of electronic data. Despite the widespread use of technology in everyday life, most people associate information technology with commercial enterprises. Both computer technology and telecommunications are part of information technology as it is used in business. The phrase "information technology" was first introduced in 1958 by the Harvard Business Review to differentiate between computers that were specifically built to handle one purpose and those that could be modified to do several activities (Hussain et al., 2021).

#### ❖ FACTOR

##### • Database Management:

By "database management, "the researchers mean the practice of using specialized software called Database Management Systems (DBMS) to effectively organize, store, retrieve, and preserve data. Data integrity, security, and accessibility across applications are guaranteed by a systematic approach to managing massive amounts of data. Information such as customer records, financial transactions, employee details, inventory data, and more is stored crucially by organizations that depend on database management. These organizations include businesses, governments, healthcare facilities, and educational institutions. Consistency, correctness, and security of data are assured by a well-managed database, which minimizes the risks of data loss and prevents unauthorized access. Backup systems, encryption, and cloud storage are all part of modern database administration that aims to keep data safe and guarantee company continuity. A few examples of popular database management systems include MongoDB, PostgreSQL, Oracle, MySQL, and Microsoft SQL Server. Big data analytics, AI, and automation rely heavily on database administration to analyse massive volumes of structured and unstructured data effectively. Businesses are increasingly relying on distributed databases and cloud computing to access and analyse data in real-time, which improves operational efficiency and decision-making. In today's data-driven world, database administration is essential for enterprises to properly handle data and provide scalability,



stability, and security. It is a crucial component of contemporary information technology (Gao et al., 2023).

#### ❖ DEPENDENT VARIABLE

##### • Chinese Businesses:

A Chinese business is any company, organization, or endeavour with Chinese roots or Chinese ownership or management in any form, wherever in the world. From banking and technology to agriculture, retail, real estate, and services, these enterprises span a wide range of industries and play a significant role in China's economy and international trade. Many different types of Chinese enterprises exist. One kind of business that the government owns and controls is known as a state-owned enterprise (SOE). Some are held independently and are referred to as private firms. Innovation and economic progress are being driven by private firms. Lastly, there are businesses that have interests or collaborations with other countries; these are called foreign-invested enterprises (FIEs). In recent decades, a number of Chinese businesses have established themselves as global frontrunners in the fields of renewable energy, infrastructure development, and technology. Their adaptability, efficient production processes, and commitment to rapid expansion have earned them a reputation for excellence. These businesses often combine more modern business strategies aimed at global commerce with more traditional Chinese values, such as collectivism and long-term planning (Sudiyono et al., 2022).

##### • Relationship Between Database Management and Chinese Businesses

To manage massive volumes of data for decision-making, consumer interaction, and operational optimization, database administration is vital to the success and expansion of Chinese companies (Usman et al., 2021). Businesses in China's e-commerce, financial, healthcare, and industrial industries depend on powerful DBMSs to store, retrieve, and analyse massive information as the country continues its digital revolution. Proficient database administration is used by Alibaba, Tencent, and Baidu to bolster their extensive web platforms. This helps to guarantee smooth transactions, customized user experiences, and real-time data analytics. In order to properly maintain user profiles, product inventories, and payment records, e-commerce platforms like as JD.com and Alibaba's Taobao need high-performance databases. These systems conduct millions of transactions everyday. Database management is also used by Chinese banks and FinTech businesses like Ant Group and WeChat Pay to ensure safe financial transactions, prevent fraud, and comply with regulations. Chinese industrial behemoths benefit from improved supply chain management thanks to database management, which allows for real-time monitoring of production, shipping, and inventories. Now that cloud computing services are increasingly popular, firms like Alibaba Cloud and Huawei Cloud make it easier for organizations to grow database solutions, which improves productivity and reduces costs. In addition, smart cities, healthcare records, and government data management in China are being revolutionized by AI-driven database management. This is leading to improved services and more informed governance. Efficient database administration is crucial for Chinese firms to stay competitive, innovate, and expand globally in the digital age, especially as China is leading the way in big data analytics and artificial intelligence (Maneejuk & Yamaka, 2020).

Because of the above discussion, the researcher formulated the following hypothesis, which was analyse the relationship between Database Management and Chinese Businesses.

***"H<sub>01</sub>: There is no significant relationship between Database Management and Chinese Businesses."***



*“H<sub>1</sub>: There is a significant relationship between Database Management and Chinese Businesses.”*

**Table 2: H<sub>1</sub> ANOVA Test**

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39588.620	445	6475.317	1208.984	.000
Within Groups	492.770	542	5.356		
Total	40081.390	987			

In this investigation, the results will be substantial. The F value is 1208.984, attaining significance with a p-value of .000, which is below the .05 alpha threshold. This signifies the *“H<sub>1</sub>: There is a significant relationship between Database Management and Chinese Businesses”* is accepted and the null hypothesis is rejected.

### Discussion

According to Chinese literature, Born Global's desire to develop worldwide was mostly driven by the high demand for its things elsewhere and the comparatively small size of the local market. The unfortunate thing is that their situation does not fit any of these reasons. The first is that the Chinese market is massive and growing; second, these businesses just can't seem to break their cycle of making the same old, same old. As a result, the essential "market demand condition" is removed from their theoretical description. "High profits" and "preferential policies" are two more reasons they find when going over the material; none of these is found in Chinese literature, but they are supported by China's unique political and economic situation. To be competitive with well-established businesses in that industry, they should focus on expanding internationally. Most firms in this area are very much the same and there's a lot of rivalry in the local market, therefore Born Global enterprises prefer to export directly. Research in China, both theoretical and practical, indicates that there is fierce rivalry among the country's more established sectors, which tend to have lower levels of technology and a large number of comparable enterprises. Thus, it is that Born Global has to spend more time outside.

### Conclusion

The study's authors concluded that Chinese Born Globals are seeking refuge from fierce competition, access to innovative technologies, higher profitability, and government subsidies via their global expansion efforts. Regardless, the demand in overseas markets is just tremendous, and none of these enterprises can keep up. The first is China's phenomenal economic potential as a result of its low-cost labour and raw materials; the second is the country's insatiable need for knowledge, advanced technology, and foreign education. In contrast to Born Globals, Chinese literature posits that globalization is driven by factors like the pursuit of global resources and massive profits. One may argue that these elements, which show a higher level of Chinese particularity, help the researchers' study. The case study's researchers came to the conclusion that the internationalisation of Born Global, a Chinese manufacturing company, was significantly impacted by the entrepreneur's extensive personal and professional networks, geographical location, market entry strategy, abilities, and government policies. No matter what changes Born Globals takes to their OEM manufacturing



structure or whether they decide to build their own brands, the researchers say that their innovation culture will be key to their future internationalization efforts.

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