Article

Research Business Model Innovation of Exponential Organizations—Take MI as an example

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Abstract: As a representative of Exponential Organizations, MI went from obscurity to the Fortune 500 in just ten years. Mi's success is inextricably linked to its outstanding business model. This paper summarizes the elements of MI's business model from four perspectives: value proposition, value creation, value delivery, and value capture, as well as its measures for developing into an exponential organization. Expecting to provide theoretical references for the transformation and upgrading of manufacturing organizations.

Keywords: Business Model Innovation; Exponential Organizations; Case Study

1. Introduction

In the past few years, the business world has seen the birth of a new form of Organization - Exponential Organizations. This type of Organization uses internet technology to revolutionize the way economies grow[1]. Traditional Organizations can leverage big data, algorithms, platform models, and various new internet technologies to achieve multiple performances over their peers[2]. Ismail develops the most widespread model of Exponential Organizations, therefore, understanding this model is the first step in understanding Exponential Organizations. As shown in Figure 1 ,Exponential Organizations has 11 most vital attributes include one ambitious change goal (MTP), five external attributes SCALE, and five internal attributes IDEAS [2]. Not all Exponential Organizations must have these 11 attributes, but it tends to be more exponential when an organization has more attributes.

Massive Transformative Purpose (MTP)

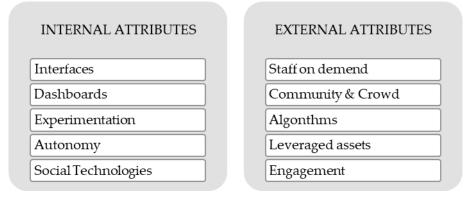


Figure 1. Exponential Organizations ATTRIBUTES.

According to the World Internet Development Report 2021[3], show in Figure 2. China's Internet development Index score is 61.7. The second place occupies an important position in the world Internet landscape.

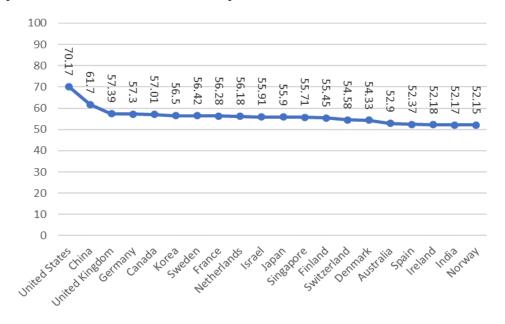


Figure 2. Top 20 Internet Development Index scores and rankings.

Internet technology is the foundation for Exponential Organizations. In the increasingly competitive situation, the only business model suitable for the dynamic development of Organizations should be paid more attention to by Exponential Organizations. China's Internet business characteristics are diversified types and a wide range of coverage. With the type and level of Internet technology, the business model has been in a state of continuous improvement and refinement driven by the external environment and corporate strategies [4].

MI Corporation ("MI") is an exponential representative organization that emerged with the high-tech [2]. Relying on Internet thinking, MI innovated the business model of mobile phone manufacturers: the products were of high quality and low price, which broke the original market competition pattern [5]. In the fourth year, MI became the world's third-largest smartphone manufacturer, only behind Apple and Samsung [6]. Then, MI had timely insight into the blue ocean market of IoT and began to focus on the investment layout of the ecological chain and expand the industrial chain. By 2021MI's income reached 328.3 billion RMB [5], of which the consumer IoT hardware business has taken the lead in the global market. Today's MI is no longer a traditional mobile phone manufacturer. It's actual Exponential Organizations [2].

At present, the existing research on MI's business model is mainly based on the static study of its role as an intelligent hardware manufacturer [5]. Since its establishment, MI has been actively exploring and innovating its business model, using the exponential transformation method to build this fantastic organization [5]. This paper explores the real reasons behind the rise of MI through an in-depth analysis of its business model to provide lessons for other Internet Organizations to transform and upgrade to Exponential Organizations.

The rest of the paper is structured as follows. Section 2 reviews the previous studies that focus on the business model features and state of the art of the main exponential implementation models. Section 3 describes the research design, and Section 4 presents the empirical results. Lastly, Section 5 provides some concluding. Finally, the implication and limitation are presented in Section 6.

2. Literature Review

At present, Exponential Organizations are still in the process of continuous development, so domestic and international scholars have been exploring the research on their business model. In the study on the definition of the business model, Alexander Osterwalder et al. (2014) [7] defines the business model as a network in which an organization provides value to customers and generates profits through sustainable marketing, research, development, and procurement. Wang Xin (2009) [8] concludes that a good business model is long-term, the income is more than the payment, and can forecast future development. Allan Afuah et al. (2003) [9] believe that the business model is an organic system that mainly selects ways to make long-term profits and constructs an index system to evaluate the business model. The system focuses on business model elements, profitability, and profit growth trends. Ji Huisheng et al. (2010) [4] point out the design of the business model includes six value elements: value discovery, value proposition, value creation, value configuration, value management, and value realization. Zhu Xiaodan (2015) [10] believes that four modules dominate the Internet: search engine, e-commerce, online games, and instant messaging, and combs the business model through these four modules

The business model of Exponential Organizations develops with the rise of the Internet. In China, the national conditions of economic diversification provide go of Exponential Organizations and lead to different business models [5]. The business model theory of Exponential Organizations is very different from that of traditional organizations [11]. The "20 to 80 law", which is widely applied in traditional organizations, is not consistent with that of Exponential Organizations to a large extent [12]. Therefore, the long tail theory was born. Chris (2006) [13] believes that if the channels of storage and distribution are large enough, the market share jointly occupied by-products with low demand or poor sales can match, or even be larger than the market share occupied by those hot products. Internet companies offer virtual goods and services with virtually free payment and distribution costs, taking the Long Tail theory to its extreme to measure Exponential Organizations [8]. Marina, Díaz (2021) [14] uses a formula for exponential growth. The (x_0) is the beginning of the metric that the Organization wants to be measured. Then, the organization provided the percent increase (r), and the fixed cycle (t).

$$x_a = x_0 (1+r)^t$$

Marina, Díaz invented an application to evaluate the exponential enhancement depending on this formula, but this application only focused on the organization's top-level management.

From the analysis in this section, the sustainability of the business model of exponential organizations is a growing concern for organizations. However, there are still no clear and demonstrable examples for Organizations to know whether their strategic goals are going in this direction. For this reason, this paper summarizes MI's operational model. Comprehensively, the new model of organizations to leverage community and public resources for innovation and development partly makes up for some points that have not yet been studied.

3. Methodology

We use a single-case in-depth research paradigm to study the target case and discuss the business model from the value proposition, value creation, value delivery, and value capture to explore the mechanism and Exponential Organizations characteristics of MI's business model. And we intend to answer the following questions: (1) The characteristics of the manufacturing business model in the Internet ecosystem; (2) What is the mechanism of interaction between Organizations and users in the new ecosystem; (3) What is the implications of MI business model's theoretical significance for other organizations.

The reasons for choosing MI as a research case are as follows: (1) MI's business model has been a great success and has complete information for analysis (2) According to Salim Ismail (2015) [2] evaluation of Exponential Organizations, MI has the index score of 74,

which is the highest index score among Chinese enterprise and is representative of Chinese Exponential Organizations. (3) MI has made full use of Internet technology and the ecological environment in its business operators [5, 15], which has greater significance for the transformation and upgrading of manufacturing organizations.

Data sources & analysis: The primary data sources for this study are secondary data collected by the research for MI. The sources of data include: (1) written materials published in newspapers and magazines, online, including videos and articles of MI executives' interviews, articles written by executives, etc.; (2) other materials, such as MI's website, forums, etc. All the Second-hand data is analysed & classified, and all the information that deal with the research questions are extracted to argue the issues raised in the theoretical research section. For the processing of secondary data, the structured content analysis method was used. Identification, extraction, and coding of the required variable information, followed by coding into quantitative data form, were performed show in Table 1.

Table 1. Case data coding.

Data sources	Data Classification	Quantity	Code
luta mad infan	Internal Organization documents	2	I1
Internal infor-	Corporate Listing Annual Report	30	12
mation	Videos and books for business executives	9	13
External infor-	Industry Analysis Report	4	E1
mation	Other related books, cases, papers	28	E2

4. Results

This paper takes several elements of the business model as the guide, focusing on the relationship between MI and its users, and firstly discusses the value proposition of MI's MTP, then analyses the various aspects of MI's business model, such as value creation, value delivery, and value capture, and finally integrates all parts to form the overall land-scape of MI's business model [4]. Finally, the overall pattern of MI's business model is a combination of various aspects.

4.1. Value proposition

The core of the value proposition is to discover and understand user needs. The Internet era emphasizes user-centeredness and user experience more than ever before [16]. In terms of value proposition design, unlike traditional business models, the value proposition design of Exponential Organizations pays more attention to the pain points of driving customers and adopts different solutions for the specific scenarios in which customers are located [17].

Lei Jun, the founder of MI, is considered the Chinese version of Steve Jobs [5]. This is not only because MI, under his influence, is heavily inspired by Apple's design, marketing, and supply chain management, but also because MI pays close attention to performance, quality, and customer experience, which are the three main features that MI tries to offer to everyone at an affordable price [6]. MI's Massive Transformative Purpose (MTP) is "innovation for everyone" reflecting the core of MI's value proposition [5]. Therefore, in lots of areas, MI product First-rate quality, cost close to pricing, revolutionizes the Internet industry, greatly accelerating the popularity of Internet products [18].

4.2. Value creation

Profiting from technological innovation, innovation is at the core of value creation. MI prefers to leverage the resources of the community & crowd [2] and fully use the cognitive surplus, the details are show in Table 2. The technology of communication networks encourages the user to join and share, and thanks to the combination of intrinsic and social motivation people's desire to share is greatly enhance [19, 20]. The design environment of amateurs, often used by the Exponential Organizations, can create a member environment and a sense of belonging better than the design of professional designers [5].

MI believes that customers are the best source for the company regarding product design and service [2]. Therefore, MI has built a mechanism to discover, maintain, and encourage users to become loyal fans, and the gratitude and respect shown by Mi inspire users and empower them engagement with stronger motivation [21]. That has led users to shift from being "users and feedbackers of products" to "drivers of product innovation"[5].

Table 2. How MI uses the Community & Crowd Resource	Table 2.	How MI	uses the	Community	& (Crowd	Resource
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	Product Planning	Product Design	Product	Product Testing	Product Release
	1 roduct riaming	r routet besign	Development	Troduct resting	1 Toduct Neicase
				MI has an entirely	
		Numerous channels are		peer-to-peer	
	MI employees spend at least	provided to users to give	Users volunteer to	service platform,	MI organizes special
			participate in the		events for a
	half an hour every day on	MI suggestions, invite	development of the	driven and	community of 46
Community	user forums and social	users to participate in the		organized by users	·
& Crowd	networking sites to interact	use of test versions,	product and can	and themselves,	million fans and
G. G. G. G.	nomening energies in moraci	400 0. 1001 10.0.0	develop additional	and memoerroe,	hosts comprehensive
	with users and understand	rapid iterative	applications on the	facilitating	product launches like
	their product requirements.	development	applications on the	enthusiasts to	product lauriches like
		(Formarina and a form)	MIUI platform.		Google and Apple.
		(Experimentation).		participate in	
				product testing.	

4.3. Value delivery

4.3.1. Marketing

MI has entirely learned from Apple's strategy of marketing channels in the US. Adopting the sales model of direct sales plus logistics company distribution [6], which circumvents profit sharing between stores and distributors and ensures quality control to a high degree. In addition, this purely online approach is perfect for MI's marketing online strategy, with reservations and purchases as well as F-codes all well designed and administered for implementation [18].

The reason is that there will be inventory through the way distributors spread goods. And the inventory always has a cost during the storage process. And inventory accounts for liquidity, in order to obtain liquidity to cover necessary expenses, the company may be forced to incur additional debt and pay additional interest [22]. As the smartphone

product model update cycle accelerates, the phone manufacturers will have a new product launch in less than three months, and the inventory backlog will soon be obsolete [23].

The problem of information asymmetry from demand information at the end of the value chain to the brand owners can be solved entirely through demand reservation. Unlike traditional manufacturing, which requires a vast warehouse to store products for shipment [6], MI improves on sell-to-order inventory: this week's production capacity is next week's sales volume, i.e., a zero-inventory model. Zero-inventory is not the same as no stock, mean through the user online reservation, accurate grasp of the order quantity, only the production of market necessities [24]. Therefore, maintaining market demand becomes the MI hunger marketing starting point [5]. Attracting consumers through social media and low prices, MI uses hunger marketing to multiple its value and attractiveness in order to build a customer base with better loyalty [2], remain irreplaceable in the short-term market, and eventually form a circle of MI's resources and a solid customer base. At the same time, by fixing a limited number of snaps, MI can reduce purchasing costs and cut down several unnecessary wastes [6].

However, in 2015, along with the popularity of the mobile Internet and the slowdown in the e-commerce market [15], the model of purely relying on direct online sales would soon become a bottleneck. 2016, MI pushed forward the "new sales" strategy show in Figure 3, and promised the same price at online and offline [5].

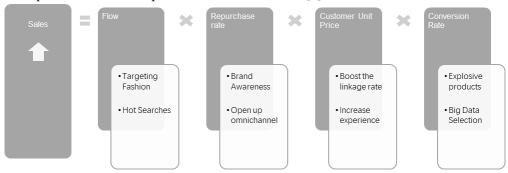


Figure 3. MI's eight new sales strategies.

At the same time, MI led the development of MIUI mobile operating system (Interfaces) based on the "user development model" and created the fan culture [19], which completely revolutionized the marketing method of the cell phone industry. It is worth mentioning that MI has also created Internet buzzwords such as "participation, cell phone control, F-code and Mi Fan Festival", which has become a banner of new interactive marketing in China's marketing industry [18].

By the above method, MI's marketing costs are only 2% - 6%[25], and marketing costs for traditional smartphone manufacturers are 10% - 20%[26], which shows that MI's marketing costs are much lower than those of its competitors, the marketing expenses results are shown in Table 3.

Table 3. MI 2015~2021 Marketing Expenses & Marketing Expenses as a Percentage of Total Revenue.

Year	2021	2020	2019	2018	2017	2016	2015
Marketing Expenses	20.98	14.54	10.38	7.99	5.23	3.02	1.91
(Billion RMB)	20.30	14.04	10.00	7.55	0.20	5.02	1.51
Total Revenue	328.31	245.87	205.84	174.92	114.61	68.43	66.81
(Billion RMB)	320.31	240.07	203.04	174.52	114.01	00.40	00.01
Marketing Expenses							
as a Percentage of	6.39%	5.91%	5.04%	4.57%	4.56%	4.41%	2.86%
Total Revenue							

4.3.2. Sales

MI's leadership strategy is low-price and high-quality [5], On August 16th, 2011, MI announced the 1st generation cell phones. The configuration was Qualcomm's flagship processor Snapdragon MSM8290 CPU with MI's MIUI one system, 1+4GB RAM, 8MP rear camera, the price is 1999 RMB. This was almost certainly breaking news in 2011. At the time, domestic hot-selling models included Apple 4S, Samsung Galaxy Nexus, HTC Sensation, HTC Desire, Motorola XT865, these phones are priced at more than 4,000 RMB. The Table 4 show the selling price of each generation of MI's phones, all of MI's phones have maintained sufficient market competitiveness [25]. The concept of low price and high quality is deeply rooted in people's hearts.

Table 4. MI selling price.

Model	Price	TTM
MI 1	1999	2011
MI 2	1999	2012
MI 3	1999	2013
MI 4	1999	2014
MI 5	1999	2016
MI 6	2499	2017
MI 8	2699	2018
MI 9	2999	2019
MI 10	3999	2020
MI 11	3999	2020
MI 12	3199	2021

The low-cost leadership strategy is the most central strategy throughout MI, and is also the greatest value of the Organization [2, 5]. Furthermore, MI has been able to sustain this strategy, of which the ability to effectively leverage assets is its core means [2]. Just as the key to having the future is not having it anymore. MI outsources the manufacturing process, that doesn't need to build its own production lines, only chooses to outsource the lower value-added manufacturing process to Foxconn, Informa, etc. Figure 4 show the theory of smile curve [27], establishes strategic alliances with foundries then reduce the cost.

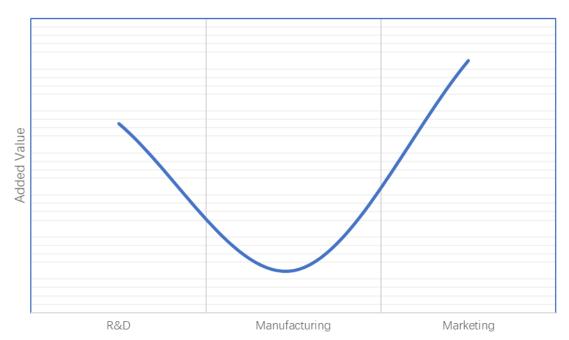


Figure 4. Smile Curve.

MI taking full advantage of foundry scale and capacity to improve production efficiency, reduce manufacturing time, and ensure on-time product delivery. MI also sends professional staff to the foundry to develop products together with the foundry's engineers (Staff on demand) [5], supervise all aspects of its production, reduce waste, and improve its production process. By doing so, manufacturing costs reduce. MI has made full use of its technology and cell phone R&D capabilities to devote itself to technological innovation. Thus, investments in fixed assets such as production lines are eliminated, and limited corporate resources are devoted to R&D and sales, which adds the most value and establishes a relative competitive advantage in these two links of the value chain and minimizes costs [25].

MI also places great importance on user involvement in the sales process. For example, users can post WEIBO& Moments with product images announcing the success of their reservation, thus transforming a simple sales activity into an online interaction involving tens of millions of users(engagement)[28].

4.3.3. Organization & Management

Same as many Silicon Valley Internet companies [29], MI has adopted an incredibly flat organizational structure model, which solves the drawbacks of hierarchical management, accelerate the information flow, and improve the efficiency of decision making (Autonomy) [2].

By the end of 2021, MI has 33,427 employees, 30% working in marketing, 35% providing user service and logistics, 30% in R&D, and 5% in other work, making it a three peaked structured company with marketing, R&D, and customer service. Other functions, such as manufacturing, logistics, and parts of the after-sales maintenance service, are outsourced [25].

On the hierarchy, as the Figure 5 show, MI only has three levels: Founder Executive Team - Team Leaders - Employees [25]. The founder executive team is each responsible for a large department, then below are several smaller teams of 5 to 10 people per team, with a team leader and variable, needs-based team members. The team finds out what to do proactively from the users, rather than passively following the leader's instructions (Autonomy). Each small team has a tribal-like culture with a cohesive atmosphere. When it comes to hiring employees, MI focuses on candidates who are passionate about their work and specialize in specific areas. MI also uses a broadband compensation system in salary structure to support the development of a flat organization. Employees can focus more on their personal ability to improve and achieve projects successfully without overthinking their positions and other external factors.

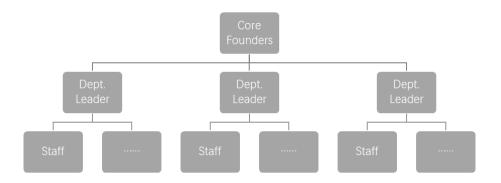


Figure 5. MI Organizational Structure.

4.4. Value capture

The business model is the value capture mechanism in a business model, a strategy for learning how a company can provide value to its users as well as create value for itself [30]. MI's revenue sources include sales of hardware, accessories, and services. From Table 5, MI's main product, smartphones, is set at cost and has a small gross profit [25].

Year	2021	2020	2019	2018	2017	2016	2015
EBIT(Billion)	24.42	21.63	12.16	13.93	-41.83	1.18	-7.47
Gross profit(Billion)	58.26	36.75	28.55	22.19	15.15	7.25	2.70
Total revenues(Billion)	328.31	245.87	205.84	174.92	114.61	68.43	66.81

Table 5. MI 2015~2021 Gross profit & Total revenues.

MI model has many advantages. Such as direct e-commerce sales are less expensive and better for inventory management than traditional channel sales. The self-publishing system as a marketing anchor dramatically reduces the cost of advertising and other marketing activities, and outsourcing large-scale manufacturing will give MI better bargaining power than other smaller manufacturers. Most important is the deep involvement of users in MI's product development, sales, and service processes, leveraging their passion and fragmented time to contribute to the company [19].

MI's business model is based on a staggered product pricing model that shifts profits from major hardware products to value-added services and accessories and redesigned user-centric R&D, marketing, and sales approach using the Internet to reduce costs significantly. Investors have well received this business model. In nine years from its inception to its IPO, MI has gone through multiple rounds of financing with total funding of approximately RMB 40.956 billion [25], show in Table 6.

Table 6. MI Financing History.

Financing rounds	Time	Funding Agency	Amount \$
E	2015.4	Singapore Government, Houpu Capital, All-Stars Investment, Yunfeng Capital, DST	1.1 B
D	2013.9	DST	Unpublished
С	2012.6	DST, Temasek	216 M
В	2011.12	IDG, Qiming Venture Partners, Qualcomm, Te- masek, 5Y Capital	90 M
А	2011.7	IDG, Qiming Venture Partners, Shunwei Capital, 5Y Capital	41 M

5. Conclusions

This paper reveals the complete picture of the business model of manufacturing Organizations in the Internet era, through an in-depth study of how MI builds an Exponential Organizations. The paper analyses MI's exponential transformation and upgrading path one using Exponential Organizations' characteristics. This study shows that manufacturing organization can use the Internet to build platforms and thus involve users in every part of the organization value stream[31], allowing demand side to become the driving force and choice for the organization's products and other strategies, both to drive continuous micro-innovation and to significantly reduce operating costs and maintain a dynamic competitive advantage[32].

The main theoretical contributions of this study are:

- Most of the current studies focus on the process of user involvement in product innovation, while this paper demonstrates the business model and mechanism of full user involvement in firm operations.
- This study enriches the theory of user-firm interaction by providing a case in which
 the demand side is both the driving force and the selective force of a firm's development strategy.
- Through the study of the business model of a fast-growing Exponential Organizations start-up, this study shows how organizations in the Internet era form a unique business model in their interaction with users, thus enriching the theory related to business models.

Furthermore, the practical implications of this study are. Firstly, other similar businesses can learn from the steps to provide a successful case study demonstrating how to involve users in various aspects of Exponential Organizations. Secondly, the user engagement requires continuous motivation, and organizations must build platforms for user, engagement and understand the motivations for user engagement to encourage user participation in the organization value creation process effectively. These practices have lessons for other companies.

6. Implication and Limitation

The research in this paper also has its limitations. Firstly, the conclusions obtained from the case study approach have certain shortcomings in generalizability; Secondly, we did not deeply explore the motivation of users' participation in the operation of the organization, which is important for the organization to maintain the enthusiasm of users' participation in the long run [33]. Also, although MI's Community & Crowd model has been partially adopted by some companies, this does not mean that the model is without limitations, and some questions remain to be answered, such as: the products are close to users, based on the open source and standard components, whether this method can create disruptive products [33]? Gamification is used to gather fans' time and enthusiasts'

volunteer services to help the Organization grow, but people will get tired of playing any game, so how to make users' enthusiasm last forever [34]?

Therefore, further following this case to examine the subsequent development of its business model. Furthermore, a more comprehensive study of the exponential transformation of manufacturing-related Organizations is a direction worth investing in the future.

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