# MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SUMY NATIONAL AGRARIAN UNIVERSITY ECONOMICS AND MANAGEMENT FACULTY

Public management and administration Department

## **QUALIFICATION WORK**

### **Education Degree - Master**

on: Administrative management of information support of the enterprise

Completed: Zhang Zengxiang

student of 073 «Management» (EP «Administrative Management»)

Superviser Brychko Alina Mykhaylivna

PhD, Associate Professor

Reviewer Habib Usman Abraham

Master of Administrative management

**Sumy - 2024** 

## SUMY NATIONAL AGRARIAN UNIVERSITY

Faculty Department	Economics and Management Public management and administration		
Education degree Field of Study	«Master» 073 «Management» (EP «Administrative Management»)		
	Approved:  Head of Department  «		
	Zhang Zengxiang		
	inistrative management of information support of the enterprise itution,organization)		
Superviser <u>Alina Mykho</u>	aylivna Brychko, PhD., Associate Professor		
approved by the universit	ry from		
2. Deadline for student of	completed project (work) September, 5 2024		
and economic research of	roject (work):  ent management is crucial to relative activity. By analyzing the financial  f Xiaomi Technology, we reveal the management efficiency.  t and explanatory notes (the list of issues to develop):		
support of the enterprimanagement efficiency, of	spects of the concept of "Administrative management of information se" and analysis of the company's financial status, evaluation of comparison of market positioning with competitors, formulation of risk and suggestions for improvement and development strategies.		
5. Date of assignment:	June, 19 2023		

#### **CALENDAR PLAN**

№	Title the stages of the degree project (work)	Date of performance project stages	Note
1	Definition and approval of the thesis, preparation of the plan - schedule of work	June, 2023	
2	Selection and analysis of literary sources, the preparation of the first theoretical chapter	September - October, 2023	
3	Preparation and presentation of draft of the first chapter of the thesis	November 2023	
4	Collection and processing of factual material, synthesis analysis of application issues in the enterprise	December 2023	
5	Making the theoretical part of the thesis, summarizing the analytical part	January 2024	
6	Design options improve the research problem	January 2024	
7	Completion of the project part of the thesis, design chapters	January 2024	
8	Previous work and its defense review	March 2024	
9	Checking the authenticity of the thesis	August, 2024	
10	Deadline for student completed the thesis	September, 05 2024	
11	Defense of the thesis	September, 12 2024	

Student		Zhang Zengxiang
	(signature)	
Superviser of science work		Alina Brychko
•	(signature)	
Authentication performed		Nadiya Baranik
	(signature)	
Checking the authenticity conducted.  Thesis allowed to defense		Svitlana Lukash
	(signature)	

#### **ABSTRACT**

Zhang Zengxiang. Administrative management of information support of the enterprise.

Master's thesis in the specialty 073 «Management», EP «Administrative Management» SNAU, Sumy-2024 - Manuscript.

The abstract for the thesis underscores the paramount importance of efficient enterprise management in maintaining competitiveness within today's fast-paced and technologically driven market environment. This thesis is structured to provide a comprehensive exploration of corporate management with a particular focus on enhancing management efficiency, scrutinizing financial metrics, and devising robust development strategies.

The primary objective of this thesis is to dissect and understand the intricacies of corporate management through a detailed analysis of Xiaomi Technology Co., LTD's financial and economic activities. By examining a leading technological enterprise, the research aims to reveal insights into management efficiency, pinpoint existing management challenges, and propose viable strategies for enhancement.

The research methodology adopted includes qualitative and quantitative analysis. A meticulous analysis of Xiaomi Technology Co., Ltd.'s financial data is conducted to measure economic performance and management efficiency. A comparative study with industry benchmarks and competitors is conducted to understand Xiaomi's position in the market. In addition, a survey of key stakeholders provides qualitative insights into management practices and organizational culture.

**Key words:** operational management, management efficiency, financial indicators, development strategy, risk management, Xiaomi Technology Co., Ltd.

#### **АНОТАЦІЯ**

Чжан Цзенсян. Адміністративне управління інформаційним забезпеченням підприємства.

Магістерська робота за спеціальністю 073 «Менеджмент», ЕП «Адміністративний менеджмент» СНАУ, Суми-2024 - Рукопис.

Кваліфікаційна робота підкреслює першочергову важливість ефективного управління підприємством для підтримки конкурентоспроможності в сучасному ринковому середовищі, яке швидко розвивається та розвивається технологічно. Робота побудована таким чином, щоб забезпечити комплексне дослідження корпоративного управління з особливим акцентом на підвищення ефективності управління, ретельний аналіз фінансових показників і розробку надійних стратегій розвитку.

Основна мета цієї дисертації — розібрати та зрозуміти тонкощі корпоративного управління шляхом детального аналізу фінансово-економічної діяльності Хіаоті Теchnology Со., LTD. Вивчаючи провідне технологічне підприємство, дослідження спрямоване на те, щоб зрозуміти ефективність управління, точно визначити існуючі проблеми управління та запропонувати життєздатні стратегії для вдосконалення.

Прийнята методологія дослідження включає якісний та кількісний аналіз. Ретельний аналіз фінансових даних Хіаоті Теchnology Со., Ltd. проводиться для оцінки економічних показників і ефективності управління. Щоб зрозуміти позицію Хіаоті на ринку, проводиться порівняльне дослідження з галузевими тестами та конкурентами. Крім того, опитування ключових зацікавлених сторін дає якісне розуміння практики управління та організаційної культури.

**Ключові слова:** операційне управління, ефективність управління, фінансові показники, стратегія розвитку, управління ризиками, Хіаоті Теchnology Co., Ltd.

## **CONTENT**

INTRODUCTI	ON	7
CHAPTER 1	THEORETICAL BASIS OF ADMINISTRATIVE	
	MANAGEMENT OF INFORMATION SUPPORT OF THE	
	ENTERPRISE	10
CHAPTER 2	ANALYSIS OF ADMINISTRATIVE MANAGEMENT OF	
	INFORMATION SUPPORT OF THE ENTERPRISE	19
2.1	Organizational and economic characteristics of the enterprise	19
2.2	Analysis of financial and economic activity of the enterprise	23
2.3	Assessment of administrative management of information	
	support of the enterprise	39
CHAPTER 3	WAYS OF IMPROVING ADMINISTRATIVE	
	MANAGEMENT OF INFORMATION SUPPORT OF THE	
	ENTERPRISE	47
3.1	Emerging Technologies and Trends in Information	
	Management	47
3.2	Managing Information in a Dynamic and Evolving	
	Environment	58
3.3	Continuous Improvement and Monitoring	69
CONCLUSION	VS	73
REFERENCES		75
APPENDIXES		78

#### INTRODUCTION

Relevance of the topic. In today's business environment, where technologies are rapidly developing and competition is becoming more and more intense, effective administrative management of the enterprise's information provision becomes a key factor for its success and competitiveness. The thesis, devoted to the analysis and optimization of this process, is a great external awareness and implementation of strategic decisions in the field of information technologies.

In the context of modern business, the deterministic beginning of the path to success, the research conducted in this work focuses on improving the processes of gathering, storing and processing information. An analysis of the goals was carried out to determine its optimal administrative management strategies, contributing to the effective use of the company's resources and maximizing potential.

Within the framework of the thesis, the current technological and strategic tasks faced by the modern enterprise are considered, as well as recommendations for improving the information management system are developed, aimed at increasing the competitiveness and sustainability of business in the conditions of a dynamic market environment.

This diploma work is an attempt to contribute its appearance to the development and optimization of the practice of managing information resources of the enterprise, called to highlight the prospects of further research and practical programs in this area.

The method of this diploma work is to conduct an in-depth analysis and develop strategies for optimizing the administrative management of information provision of the enterprise. The main task is to identify effective tools and practices aimed at increasing the productivity and competitiveness of the organization in the conditions of the modern business environment.

### **Objectives of the study:**

- Conduct a reporting analysis of the current state of administrative management of the company's information resources.
- Identify the key challenges faced by the enterprise in the context of information management.

- Identify opportunities for improvement and optimization of existing processes.
- Propose and justify the use of modern technologies to improve the efficiency of administrative management.
- Develop strategies and recommendations for optimizing information management processes.
- Evaluate the possible costs and benefits of implementing the proposed strategies.
- To draw conclusions based on the results of the research and point to the prospects for further research in this area.

This task is aimed at creating a specific and well-founded approach to solving the problems of managing the information administrative support of the enterprise with increasing its competitiveness and stability in the market.

**Object of research:** Administrative management of information provision of the enterprise.

Research subject: Xiaomi Technology Co., LTD

#### **Research methods:**

Analysis: Consider and analyze the existing systems and processes of management of information resources at the enterprise.

Surveys: Conduct employee surveys to gather opinions and impressions regarding the effectiveness of information management.

Modeling: Use mathematical or computer modeling to evaluate possible options for process optimization.

Observation: Observe real management processes at the enterprise to obtain practical conclusions.

It is important to consider that a combination of different sources and methods can provide a more complete and objective view of the research topic.

#### **Personal Achievement:**

1. Zhang Zengxiang Administrative management of information support of the enterprise XII Міжнародної науково-практичної конференції «Економіка підприємства: сучасні проблеми теорії та практики» - (08-09 вересня 2023 р.). Одеса, 2023. С.379-380

2. Zhang Zengxiang A modern approach to the use of administrative management of information provision of the enterprise *Стратегічні пріоритети* розвитку бухгалтерського обліку, аудиту та в умовах глобалізації : матеріали ІІ Міжнародної науково-практичної конференції (м. Суми, 16 листопада 2023 р.) / за ред. проф. Назаренка О.В. Суми: СНАУ, 2023. - С. 287-290.

The structure and scope of work. Qualification work consists of an introduction, three chapters, conclusions and suggestions, a list of references, which consists of 42 titles. The main text is placed on 79 pages of computer text, the work contains 20 tables, 15 figures.

#### **CHAPTER 1**

## THEORETICAL BASIS OF ADMINISTRATIVE MANAGEMENT OF INFORMATION SUPPORT OF THE ENTERPRISE

Managing an organization is an integral part of human interaction. The key tool in the hands of a manager is the information he has at his disposal. By transmitting and receiving information and receiving feedback, he organizes, directs and motivates his subordinates. It is important that he can convey information in such a way that it is most adequately perceived by those to whom it is intended. Much depends on the manager's ability to communicate effectively.

Information is constantly exchanged in the field of organization management. The manager informs the subordinates of the information necessary for their work, and the subordinates present reports on the work performed. Different departments and employees share various information with each other, which is important for the functioning of the organization. Information is not only the object of work, but also the result of the activities of management employees.

The term "information" causes a lot of controversy and debate. The discussion of three main concepts of information is ongoing, each of which singles out specific features of this concept.

The essence and role of information in management best reflects the relationship between the concepts "information" and "entropy". Information entropy (from the Greek entropía - turn, transformation) is a measure of uncertainty or unpredictability of information. The founder of cybernetics, M. Wiener, expressed the relationship between entropy and information as follows: as the amount of information in a system is a measure of system organization, so entropy is a measure of a disorganized system; one to the other taken with the opposite sign. Management in the system depends on the available information. Of all the variety, the most fundamental is that postulated by information theory and related to the amount of information.

Informing - removing uncertainty (uncertainty - absence or lack of information about something). At the same time, the uncertainty is reduced by the amount of

information that was obtained in the process of choosing or making a decision from the number of alternatives (options), which is changing. Management activities begin with the collection, accumulation and processing of information, that is, a set of qualitative and quantitative information about the processes occurring in the organization and its environment and contribute to overcoming uncertainty. It can be taken into account by managers, expand their knowledge and outlook, and serve as a basis for decision-making. Without information, joint work under the conditions of division of labor is impossible. A lack of necessary information, as well as an excess of unnecessary information, disorients any economic activity.

The need for management information is determined by the specifics of the tasks to be solved; knowledge, experience, and education available to employees (the higher they are, the less they need additional information).

Information transmitted to people can have different purposes depending on the types of activities in the organization:

- informing;
- assessment of results;
- conviction, order;
- generation of other types of information.

Managers can assess the likely benefits of having information or possible losses due to its absence.

The value of information largely depends on the method and speed of its transmission, frequency and reliability. Sources of management information can be top managers, their subordinate heads of various levels of management and structural divisions, media, information systems, and others.

Sources of management information are divided into internal and external. Internal sources of information include accounting and statistical reports, customer accounts, current observations, special surveys (both planned and conducted by a special decision of the management), results of previous studies.

External sources of information are current legislation, resolutions, orders and orders of higher organizations, the structure of demand in domestic and foreign markets, etc. External sources of information are more numerous and diverse.

First of all, here it is necessary to highlight the employees of the organization (these are managers and specialists of supply, sales, marketing, information services, participants of various business meetings and negotiations). Within the limits of official and personal contacts, they have the opportunity to carry out both general and targeted collection of necessary information.

Another source of information are partners (buyers, sellers, employees of financial, credit, insurance institutions), as well as retired government officials, former employees of competitors, trade union activists and representatives of business associations.

Publications in books, catalogs, directories, magazines, newspapers (especially local and multi-circulation enterprises), advertising brochures, newsletters, etc. are a great source of business information.

In the realities of the modern economy, enterprises are able to function effectively if they comply with one important condition - constant obtaining, updating and analysis of reliable and operational information. Information support is a "cornerstone" not only in the process of managing the enterprise's productivity, but also at all other stages of its economic and economic activity.

Indeed, in the conditions of the post-industrial economy in the activity of any enterprise, a constant increase in the intensity of information and its volume can be observed. It should be noted that the paper method of storing and processing information, which involves the constant use and transfer of a significant amount of information flows and data between the divisions of the enterprise, is "outdated" and extremely ineffective.

New business conditions bring to the fore not only the speed of management evaluation procedures, but also their implementation during the evaluation of a business process, a production process, or a trade operation. Indicators make it possible to satisfy this requirement and create another advantage in the form of the possibility of their construction, focusing on management decisions that will be made later. The possibility of further use of the indicator system for making management decisions becomes a decisive factor when choosing AIS.

It is worth noting that the more complete and reliable the information, the more quickly and qualitatively it is processed, the higher the validity and potential effectiveness of management decisions and actions.

The effectiveness of any management technology largely depends on the quality of information support, that is, on how quickly and accurately the necessary information for making certain management decisions will be obtained.

In the general sense, information support is a system of indicators and means of their description (classifiers and codes, economic documentation and an appropriately organized information base) [2].

From the point of view of the system approach, information support is a dynamic system of data and methods of their processing, which make it possible to study the real state of the managed object, to identify the factors that determine it, as well as to identify the possibilities of implementing the necessary management actions.

In scientific and economic research, there are different approaches to determining the essence of information support [2, p.419]:

as an information management service; as measures of creation

information management environment; as a set of actions to provide information necessary for management in

the specified place with the specified frequency.

Management information support is a set of implemented decisions regarding the amount of information, its qualitative and quantitative composition, location and forms of organization. At the same time, the goal of management information support is the timely provision of necessary and sufficient information for making management decisions that ensure the effective operation of both the enterprise as a whole and its structural divisions.

There are four main components in the enterprise management information support system:

- 1. information resources,
- 2. information technologies,
- 3. technical means:
- 4. software.

The indicators are presented as the most effective and particularly important tool for monitoring multi-sector and multi-structural enterprises and controlling their work. They make it possible to give a complete description of all types of activities and the efficiency of the work of all constituent parts of enterprises.

For example, with the help of financial indicators, financial control is carried out, and if necessary, qualitative performance indicators are used to assess the productivity of the enterprise.

Considering the indicators of information provision in the aspect of enterprise productivity management, the following questions can be resolved:

- 1. Determine the productivity of the enterprise, dynamic changes according to the relevant indicators. To do this, determine the final values that characterize the activity of a specific enterprise in a specific industry, and this should become the critical values of the indicators. Thus, in order to ensure a change in the enterprise's productivity, it is necessary to achieve an optimal ratio between the volume of the enterprise's products and the costs of its production.
- 2. To improve the productivity management processes of enterprises by transferring the goals to the operational level and determining the indicators necessary to achieve the planned results. The duration of the usual reporting period (for recording losses and profits) is one year, while the indicators turn into an indicator warning system thanks to their 24/7 use.
- 3. Stimulate processes due to current accounting of indicators. This is necessary to detect changes or unplanned characteristics. Thus, when the level of labor productivity changes, performance indicators may change.
- 4. To ensure operational access to the current legal framework. Since such a base consists of a whole series of legislative, normative legal acts, regulations, instructions, etc., which are constantly updated, changed, supplemented, canceled, it is important for the management of the enterprise to operate with reliable information when developing and making management decisions.
- 5. Control processes due to current accounting of indicators that provide the necessary information in case of discrepancies in actual and planned results. According to the deviations of the turnover indicators, it is possible to determine the ratio of the

actual turnover to the value set by the plan and the deviation of this indicator from the planned figure.

It is also necessary to point out such a methodically important fact that must be taken into account when creating information support. We are talking about the division of the entire set of activity indicators by types and industries, due to which it is possible to properly organize the information support of the enterprise and formalize the applied information units.

The main problem that has always characterized the existing management systems of farm objects is the correct use of indicators and their informativeness. It should always be taken into account that the indicators make it possible to obtain reliable and accurate values. At the same time, there is no confidence in the guaranteed established relationship between the variables. The consequence of an incorrect understanding of the essential relationships existing between the indicators may be erroneous decisions that will be made after the company shows the results of its activity.

Also, it is possible to talk about the limitation of indicators in the case of mutual compensation of some objects or their balance with each other. Taking into account such features, it is necessary to use a system of indicators built in compliance with the hierarchical principle of the pyramid. At the same time, there should be an indicator at the top that depends on all other values.

It is important to remember the complications of management analysis and contradictions that result from the introduction of a large number of indicators into the management system of the Rivne consumer cooperative. But this problem is the easiest for statistical processing, during which indicators are calculated and statistical reporting is formed with the help of computer technologies.

Therefore, it is worth developing a variety of indicator systems for different enterprises, taking into account the specifics of the industry, the main task of which is to help carry out a systematic analysis and study the causes of changes that have occurred in the internal environment of enterprises. The main feature of such indicators should be their almost complete identity with the values established by the available reporting. In addition, one should take into account the possibility of calculation

(through mathematical expressions) or logical connections between individual indicators when the nature of the enterprise's activity changes.

Human perception of information consists of two interdependent processes - selection and systematization of received information. In the process of information selection, there is a "screening" that does not require attention and unnecessary information. Here, the experience of a person, knowledge of the problems behind which the information was received, attitude to what is happening, etc., are important.

In the process of systematizing information, a person "processes" what he perceives. A person logically processes information, using his feelings, beliefs, preferences, emotions (positive and negative). In addition to formal oral reports, managers can receive information during business conversations: during recruitment or dismissal, during meetings with partners and clients, consultations or communication with employees.

In practical activities, managers face such phenomena as rumors and misinformation. Rumors arise and spread very quickly due to the lack of or untimely receipt of official information. Thus, people try to explain the situation to themselves and others, make guesses and put forward versions.

Disinformation usually occurs consciously and purposefully. It is used in competition to hide the true state of affairs in the organization, to embellish unpopular events and mislead the public. Ways of transmitting information to people are based on sensations (sight, hearing, taste, smell). Organizations mainly use visual and audio information. The speed of transmission and reception of information can be expressed in the time required to understand a specific situation.

The frequency of transmission or receipt of information affects its value. For example, weekly reports on the financial status of an organization that contain few changes will have relatively little value. Information received too often about the same phenomenon can be an obstacle that causes human overload.

The reliability of information can be expressed in how much the person responsible for making decisions trusts the information received. The reliability of the estimate is compared with the value of the information and the costs of obtaining it.

The reliability of information characterizes the extent to which this information reflects what it should reflect.

The management information used in the creation is diverse. All information diversity is classified according to certain characteristics (Table 1.1).

Information is also classified by volume, sources, terms of collection and delivery, methods of receipt and distribution, and other characteristics.

The quality of information is a set of properties that reflect the degree of suitability of specific information about objects and their relationships to achieve the goals facing the user.

The main requirements for the quality of information: objectivity, efficiency, absence of errors, completeness.

Objectivity is a property of information that expresses the level of its correspondence to real reality. The information must not contain errors. Information should be based on current data and be timely, "not earlier, not later, but on time."

Table 1.1 - Generalized classification of information

Category	Description			
Type of Information	- Operational Information: Day-to-day data needed for the routine			
	functioning of an organization.			
	- Tactical Information: Data used for short-term decision-making and			
	planning.			
	- Strategic Information: Information critical for long-term planning and			
	organizational strategy.			
Source of Information	- Internal: Generated within the organization.			
	- External: Obtained from outside sources such as market reports,			
	competitors, etc.			
Nature of Information	- Quantitative: Numerical data.			
	- Qualitative: Descriptive, non-numeric information.			
	- Structured: Highly organized and formatted data.			
	- Unstructured: Information without a defined structure.			
Accessibility of	of - Restricted: Limited access, often confidential or sensitive data.			
Information				
	- Unrestricted: Accessible to a broader audience within the organization.			
Format of Information	- Textual: Information presented in the form of text.			
	- Visual: Data represented through charts, graphs, or other visual aids.			
	- Audio/Visual: Information presented in multimedia formats.			
Lifespan of Information	- Temporary: Relevant for a short duration.			
	- Permanent: Retained for an extended period or indefinitely.			

Source: Xiaomi Technology Co., LTD[31]

Completeness of information is a property of information that determines the amount of information collected about an object or phenomenon. Completeness of

information is closely related to objectivity. The more complete the information collected about the object or phenomenon, the higher its potential objectivity.

The reliability of information is a characteristic of its non-distortion.

Credibility and objectivity are different characteristics of information. The specified features of information directly affect the quality of information provision of management activities.

The main purpose of management information support is to create such an organization and such a mechanism for presenting information that would meet any user requirements, as well as the conditions of automated technologies [2, p. 420]. The purpose of information provision determines the requirements for it:

- 1) provision of complete, reliable, unambiguous, relevant and timely information for calculations and implementation of management decision-making processes in functional subsystems with minimal costs for its collection, storage, search, processing and transmission;
- 2) the generated information must reflect the parameters of the functioning of a certain object with a given level of accuracy;
- 3) information support should provide information sufficient for the effective implementation of all functions of the object;
- 4) information must be sent to the enterprise management system not only with a specified frequency, but also at the request of users, since the parameters of the functioning of certain management objects change over time;
- 5) the use of certain information by managers of enterprises and organizations should contribute to increasing the efficiency of their activities.

Thus, in conclusion, we note that management information support can be considered from the economic, organizational, technological and technical points of view, as well as a system of resource provision, as a specific type of professional activity, as a component of the management system and process.

#### **CHAPTER 2**

## ANALYSIS OF ADMINISTRATIVE MANAGEMENT OF INFORMATION SUPPORT OF THE ENTERPRISE

#### 2.1 Organizational and economic characteristics of the enterprise

Xiaomi Technology Co., Ltd. distinguishes itself through a business model that prioritizes value for money and an ecosystem approach, creating a diverse range of interconnected products. The company strategically employs hunger marketing and actively engages with its user community through social media platforms.

Innovation is a key focus, with Xiaomi continuously introducing new features and investing significantly in research and development. Its rapid global expansion involves adapting products to suit local markets. The company places a strong emphasis on efficient supply chain management, enabling it to deliver products at competitive prices and provide timely software updates for an extended product lifespan.

Xiaomi's leadership in the Internet of Things (IoT) is evident through the creation of the world's largest consumer IoT platform, connecting millions of smart devices. Cost optimization is a central strategy, achieved through careful management of marketing costs, timely software updates, and a reliable supply of spare parts.

Strategic diversification is another noteworthy characteristic, exemplified by Xiaomi's entry into the car manufacturing industry. This move reflects the company's ambition to explore new opportunities and industries beyond its initial product portfolio. Overall, Xiaomi's success can be attributed to a combination of innovation, global market adaptation, cost-effective strategies, and a strategic approach to diversification.

Xiaomi's rise in the tech world has been nothing short of remarkable. From smartphones to smart home devices, they've made quite a mark. The numbers speak volumes—46.6 million smartphones shipped globally in Q3 2020 alone. But what's the secret sauce behind Xiaomi's success?

Market Share= $(46.6/350)\times100\approx13.3$ . Cao et al. delved into Xiaomi's innovation ecosystem, exploring how managerial cognitive capabilities drive innovation. Through interviews and data cross-checking, they unraveled the intricacies of Xiaomi's IoT framework—a crucial player in their success [1].

Yang and Hua took a different route, analyzing Xiaomi's mobile phone strategy in the context of the Internet era. The "AI + IoT" strategy was at the forefront, and a SWOT analysis provided insights into Xiaomi's smartphone game plan [2].

Open innovation was on the menu for Ortiz et al., who used Xiaomi as a case study to understand how core enterprises foster collaboration. The study uncovered three key innovation characteristics and two institutional logics—administrative and social—that shape Xiaomi's open innovation ecology [3].

Big data took the spotlight in Tan and Zhan's research. Xiaomi's use of cross-functional teams to collect customer data and leverage low-cost, high-usage platforms for feedback showcased their commitment to staying ahead. The ACE principles—autonomy, connection, and ecosystem—highlighted how big data fuels Xiaomi's new product development [4].

And then, the curveball - Xiaomi stepping into the car manufacturing arena in March 2021. An unexpected move, but one that got everyone talking. The research paints a picture of a company not content with staying in its lane but looking to redefine the rules of the game.

So, why cars? The answer might lie in Xiaomi's penchant for pushing boundaries. As an emerging giant, they're not just content with smartphones and IoT - they're eyeing the roads, too.

As of my last update in September 2021, I don't have real-time information on Xiaomi's current situation. But one thing's for sure: Xiaomi's journey is a testament to the power of innovation and strategic diversification. They're not just a player; they're a game-changer.

Panigrahi delves into Xiaomi's success story, exploring its marketing strategies and business models. The key to Xiaomi's exponential growth? Exceptional product quality at competitive prices, coupled with a keen focus on customer feedback and needs [5].

Chen et al. take a technological angle, studying Xiaomi's MI 8, the world's first dual-frequency GNSS smartphone. Their experiments highlight Xiaomi's prowess in developing GNSS positioning technology, positioning it as a leader among smartphones in this aspect [6].

Creativity takes the spotlight in Liu et al.'s research, revealing an inverted U-shaped relationship between users' past successful experiences and idea implementation at Xiaomi. The study dissects individual creativity performance through user experience, idea presentation characteristics, and feedback analysis, offering valuable insights [7].

Sun and Fah adopt strategic lenses, employing PEST, Porter's five forces, and SWOT models to analyze Xiaomi's position in the cutthroat smartphone market. They evaluate Xiaomi's sustainable development model, strategic flaws, and introduce the company's ecological chain plan [8].

Wang and Li shift the focus to social media, studying Xiaomi's marketing strategy based on platforms like Sina Weibo. They dissect concepts like Hunger Marketing, Concept Marketing, and Event Marketing, concluding that Xiaomi's social media-driven approach is not just effective but also beneficial for the company [9].

Chao's study underscores Xiaomi's fan-centric approach, detailing how the company leverages social media to build a robust fan community. Executives, including Lei Jun, actively engage with fans on platforms like Sina Weibo and Facebook, gathering valuable feedback for continuous improvement [10].

Rajendra Kumar Tolety explores Xiaomi's unique Hunger Marketing strategy, showcasing how the company minimizes marketing costs while maximizing its brand image. Xiaomi's cost optimization techniques, timely software updates, and a focus on spare parts contribute to its status as the world's third-largest mobile phone manufacturer [11].

As a tech giant in China, Xiaomi's journey from a smartphone brand to the forefront of the Internet of Things platform is commendable. Now, with an ambitious foray into the car-building industry, Xiaomi continues to be a fascinating subject of study. This article aims to unravel the intricacies of Xiaomi's marketing strategies, its

advancements in AIoT, and the potential implications of entering the automotive sector, providing insights and suggestions.

The company's sales fell 20% year-on-year to 70.17 billion yuan (\$10.3 billion), missing estimates and marking an even sharper decline from the previous quarter, when the company reported its first revenue decline since listing. Net profit fell by 67% to 2.08 billion yuan. This week's data showed that China's economy unexpectedly slowed in July. It indicates the world's second-largest economy is struggling to recover from the blow from coronavirus restrictions. China's smartphone sector, long stagnant, has been particularly hit by the downturn, with sales down 10% year-on-year in the second quarter, according to research firm Canalys. Sales of Xiaomi smartphones, which account for more than half of the company's total revenue, fell 29%.

The weak smartphone market in China and around the world has forced the company to look for new opportunities.

Table 2.1 - Research Summary Table

Tuesto 2.1 Tresseuron Summary Tuesto				
Researcher(s)	Focus	Key Findings		
Panigrahi	Marketing strategies and	Exceptional product quality at competitive prices;		
	business models	focus on customer feedback and needs.		
Chen et al.	Technological innovation	Xiaomi's prowess in GNSS positioning technology,		
	(Xiaomi's MI 8)	positioning it as a leader among smartphones.		
Liu et al.	Creativity and idea	Inverted U-shaped relationship between users' past		
	implementation	successful experiences and idea implementation;		
		insights on individual creativity performance.		
Sun and Fah	Strategic analysis using	Analysis of sustainable development model,		
	PEST, Porter's five forces,	ces, strategic flaws, and ecological chain plan.		
	and SWOT models			
Wang and Li	Social media marketing	Hunger Marketing, Concept Marketing, and Event		
	strategies (Sina Weibo)	Marketing are effective and beneficial for Xiaomi.		
Chao	Fan-centric approach	Active engagement with fans on platforms like Sina		
		Weibo and Facebook for continuous improvement.		
Rajendra	Hunger marketing strategy	Minimizes marketing costs while maximizing brand		
Kumar Tolety		image. Cost optimization techniques, timely		
		software updates, and focus on spare parts		
		contribute to Xiaomi's success.		

Source: Xiaomi Technology Co.,

Xiaomi's sales have surged in 2021 after it grabbed market share from rival Huawei Technologies Co Ltd, whose ability to buy components has been severely limited by US sanctions. However, the success was short-lived and the company's share price has fallen nearly 40% since the start of 2022 due to China's slowing economy and weaker business overseas. In India, Xiaomi's most powerful market outside China, the

company has been the subject of government investigations for alleged tax evasion. In April, Indian tax authorities seized \$725 million of the company's assets, saying it illegally transferred funds abroad under the guise of royalty payers. Xiaomi denies any accusations.

### 2.2 Analysis of financial and economic activity of the enterprise

Since the initiation of China's Economic Reform and Open-door Policy in 1978, the country has undergone significant economic evolution. This policy aimed to modernize and develop China by reforming both its economic and political systems and opening doors to foreign investment. The initial years saw a surge in consumer demand for mass-produced goods associated with a modern lifestyle. Chinese manufacturers responded by focusing on increasing productivity to bridge the gap between supply and demand. The national innovation policy during this period, known as "Introduction-Absorption-Innovation," involved adopting technologies, processes, and management structures from foreign countries. However, this approach led to the perception that products "Made in China" were primarily imitations (Akdeniz Ar & Kara, 2014).

Table 2.2 - Economic indicators such as GDP growth, foreign investment inflows, and manufacturing output from 1978 to 2010

mile ws, and manaractaring output from 1970 to 2010				
years	GDP growth rate (%)	Foreign capital inflow	Manufacturing output (billions of	
		(billion US dollars)	U.S. dollars)	
1978	5.3	0.2	100	
1980	7.8	0.5	150	
1990	9.4	3.5	400	
2000	8.4	40.7	900	
2010	10.6	105.7	2200	

Source: China Internet Network Information Center (CNNIC)

In 2010, China adopted the "Innovation-Driven Strategy" as part of its national development strategy, signaling a shift in the role expected of companies. The subsequent "New Normal" phase, starting in 2012, aimed to rebalance the slower economy for more sustainable development. Faced with an economic slowdown, the Chinese government redirected its innovation strategy towards autonomous innovation, evidenced by policy enactments such as "Mass Entrepreneurship and

Innovation" (2014), "Made in China 2025" (2015), and "Developing Service-Oriented Manufacturing" (2016). This shift prompted unprecedented interest in innovation and risk-taking among Chinese entrepreneurs and top managers, particularly in private enterprises (Tan, 2001; Li and Tang, 2001). China has been hailed as a "New Innovation Powerhouse," rapidly catching up with the US in terms of R&D and innovation (Wertime, 2014; Osawa & Mozur, 2014).

As traditional manufacturing faced challenges in transformation and upgrading towards "Created in China," the internet industry emerged and flourished. The year 2010 marked the inception of the internet industry in China, with the establishment of the top three internet companies—Baidu, Alibaba, and Tencent (BAT). Tencent, founded in Shenzhen in 1998, Alibaba in Hangzhou in 1999, and Baidu in Beijing in 2010, collectively played a pivotal role in the growth of the internet sector.

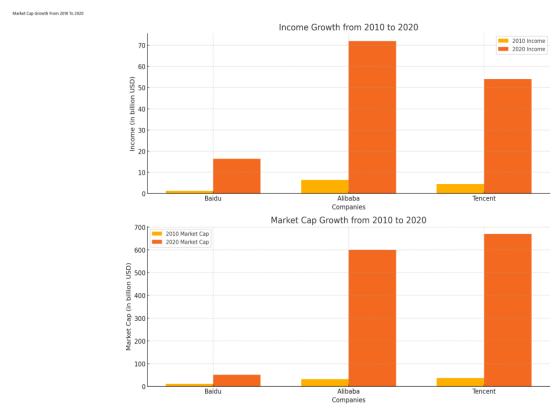


Figure 2.1 - Bar chart of revenue and market capitalization growth of Baidu, Alibaba, and Tencent from 2010 to date

Source: The revenue and market value data of Baidu, Alibaba and Tencent are derived from public financial reports and market analysis reports.

China now boasts the world's largest internet consumer markets and is entering the era of the Internet of Things (IoT). By June 2017, China had 751 million netizens,

roughly equivalent to the total population of Europe, showcasing the immense growth of internet markets. The year 2010 is considered the first year of the mobile internet, coinciding with the establishment of Xiaomi by Jun Lei, who launched their first mobile phone in 2011.

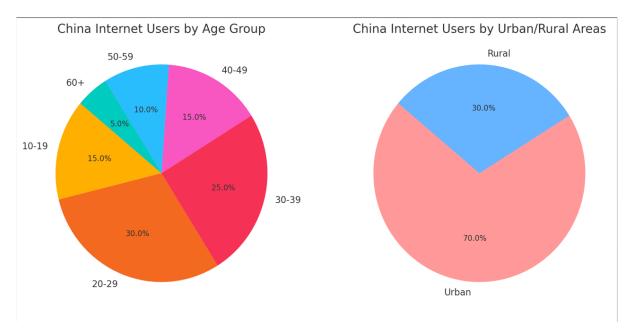


Figure 2.2 - China Internet Users By Urban/Rural Areas

Source: China Internet Network Information Center (CNNIC)

China's domestic smartphone market, once the world's largest, has experienced a significant slowdown in growth in recent years. The growth rate of smartphone sales in China has been on the decline since 2014, with an average growth rate of less than 10% from 2014 to 2018, compared to the previous growth rates of over 100%. In 2017, domestic smartphone sales even showed a 4% decline compared to 2016, indicating negative growth for the first time. This trend suggests that the domestic mobile phone market in China has become saturated, leading to increased competitiveness among domestic enterprises and a reduction in profitability due to intense price wars among major mobile phone brands.

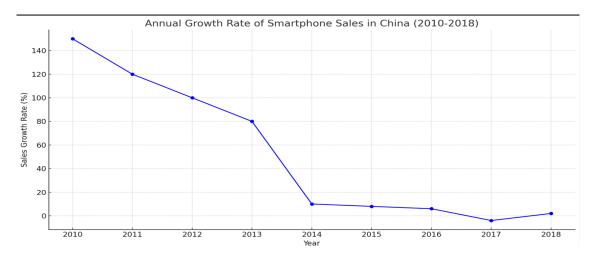


Figure 2.3 - Annual Growth Rate Of Smartphone Sales In China (2010-2018)

Source: China Internet Network Information Center (CNNIC)

Before 2014, the Chinese mobile phone market was transitioning from functional phones to smartphones. Xiaomi, leveraging cost-effective products, experienced rapid growth during this period as it gained favor among domestic mobile phone users. However, with the saturation of the Chinese smartphone market, the space for small and medium-sized mobile phones became constrained, impacting their competitiveness. Thus, expanding internationally became a crucial strategy for Xiaomi.

The international market offers broader opportunities for growth. In some developing countries, the penetration rate of smartphones is low, providing significant development space. India, as the second most populous country globally, has a massive potential market. Despite a growth rate of 10% from 2014 to 2018, the smartphone penetration rate in India was only 22% by 2018, indicating substantial untapped potential. Other regions with rapid economic development, such as Southeast Asia and Latin American countries, also present opportunities for domestically produced smartphones, particularly in the low-end segment.

Table 2.3 - Table of smartphone penetration and growth rate in India

Year	Smartphone penetration in India (%)	Smartphone market growth rate (%)
2014	12	10
2015	15	10
2016	18	10
2017	20	10
2018	22	10

Source: Indian market analysis report

Expanding internationally is not just about tapping into new markets; it's also about enhancing the international competitiveness of enterprises. In a globally interconnected economy, companies that solely focus on the domestic market risk being left behind. The international market forces companies to continuously update technology, improve management systems, and develop competitive advantages. For Xiaomi, succeeding in the international market would not only drive volume growth and product scale but also enable the acquisition of smartphone parts at a lower cost, increased bargaining power with suppliers, and the expansion of Xiaomi's brand influence globally. Additionally, venturing into international markets allows Xiaomi to accumulate experience in nationalized operations, contributing to the enhancement of its overall international competitiveness.

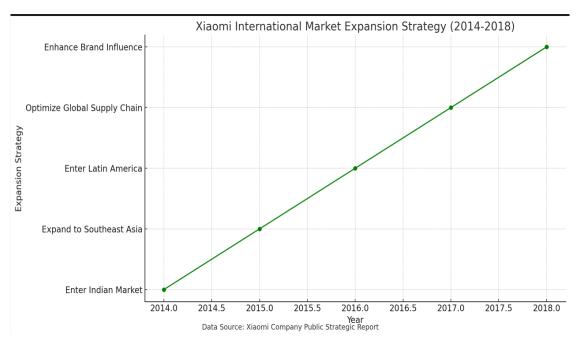


Figure 2.4 - Xiaomi's international market expansion strategy map Source:Mi Company releases strategic report

In early 2014, Xiaomi initiated its internationalization efforts by entering the global market. Initially, the plan included entering India, Russia, Brazil, and ten other countries within a year, covering Asia, Europe, and the Americas. However, the actual progress was slower than anticipated, with Xiaomi entering Brazil only in July 2015. The high tariff issues in the Brazilian market led to Xiaomi's withdrawal in less than a year, resulting in setbacks for the company. In 2016, Xiaomi's business faced

challenges, with actual shipments reaching only 53 million units, significantly below the expected 80 million units. This prompted Xiaomi to reevaluate its globalization strategy, emphasizing the need for a gradual, long-term plan.

Xiaomi shifted its focus to India as a key development market, driven by several strategic considerations:

#### 1. Mature Internet Ecosystem in India:

India's well-established internet infrastructure, comprehensive base station coverage, and signal towers ensured the normal operation of Xiaomi's mobile phones in the country. The mature internet ecosystem facilitated the replication of Xiaomi's MIUI, hardware ecosystem, and strategic investment approach.

#### 2. Large Population of Indian Mobile Phone Consumers:

India's massive population contributed to a significant wave of smartphone adoption and replacements. With over 1.181 billion mobile phone users as of May 2017, India surpassed the United States to become the world's second-largest smartphone market after China.

#### 3. Limited Competition in the Indian Market:

In 2014, major smartphone sellers in India were Samsung and local companies. Competitors like OPPO and VIVO were in the early stages of dealer adjustments, and Huawei had not entered the market. Compared to the domestic market, competition in India was relatively less intense.

## 4. Alignment with Xiaomi's Product Positioning:

The Indian market, characterized as a low-end market, aligns with Xiaomi's product positioning focused on "low prices" and "high cost performance." Xiaomi's products, priced according to the income levels of Indian consumers, resonated well with the market. The affordability and value for money proposition contributed to Xiaomi's success in India.

In summary, Xiaomi's strategic decision to prioritize the Indian market was driven by the maturity of its internet ecosystem, the vast population of mobile phone consumers, limited competition, and the alignment of product positioning with the Indian market's characteristics.

In 2016, Xiaomi faced a significant setback in its overseas development. However, in 2017, the company strategically shifted its focus to developed markets in Europe and the United States, where several internationally renowned mobile phone brands dominated. While acknowledging the importance of the Indian market, Xiaomi recognized the need to follow the pace of competitors, such as Apple, Huawei, and Samsung, and entered the European market.

Xiaomi, known for its technology focus and reputation for high cost performance, traditionally thrived in the mid-range market. Seeking to penetrate the high-end market, the company identified Europe as a mature high-end market. Xiaomi aimed to enhance its brand influence by introducing its mobile phones to European consumers.

Despite facing strong competitors in Europe, Xiaomi's commitment to high cost performance made its mobile phones popular across the continent. The Mi 6 series marked a turning point in the quality of Xiaomi mobile phones, establishing a brand image with high-end characteristics. The design concept aligned with the European preference for simplicity and liveliness, creating a perfect balance of quality and price. The brand gained attention, especially from young Europeans.

From 2017 to 2019, Xiaomi achieved remarkable growth in the European market, surpassing a 10% market share and securing the fourth position. Although the market share lagged behind the top three, Xiaomi's rapid growth within a short timeframe demonstrated its potential in Europe.

Xiaomi strategically employed an export model for market entry when venturing into the Indian and European markets. The export model encompasses various approaches such as indirect export, direct export, contract models (license, franchise, contract manufacturing, management contract, project contract), two-way trade, investment models (sole proprietorship, joint ventures), and international strategic alliances.

For Xiaomi's entry into India and Europe, the company chose the export model due to its lower associated risks. This approach allows for easier implementation, requiring less investment in the target market. Importantly, in case of any unforeseen risks, the potential losses are minimized. Furthermore, the export model provides

flexibility, enabling Xiaomi to adapt its strategies based on the sales dynamics in the target market.

Xiaomi strategically divided the European market into Western and Eastern Europe. In Western Europe, Xiaomi experienced a substantial increase in mobile phone shipments, with a 415.2% year-on-year growth in shipments by December 31, 2018. In the fourth quarter of 2019, the company achieved the fastest growth rate in several Western European countries, including a remarkable 206% growth in Spain, ranking second in the Spanish market and fourth in France and Italy.

In Eastern Europe, Xiaomi's development was equally rapid. By November 2017, the company opened eight authorized stores in Ukraine and launched Xiaomi MIX 2 locally. The emphasis on fan culture helped Xiaomi build a strong fan base in Ukraine, with the local community exceeding 13,000 users by the fourth quarter of 2018. Xiaomi surpassed Samsung, securing a 26.7% market share and becoming the top-selling mobile phone brand in Ukraine. In Russia, Xiaomi claimed 22% of the online market in the first half of 2019, marking a significant breakthrough in the overseas market.

In the rapidly evolving era of the Internet, China has emerged as a significant player in its development. The mobile phone industry stands as a crucial pillar supporting Internet growth. To gain a competitive edge in this industry, enterprises must continually enhance their innovation and development capabilities. This involves identifying a profit model aligned with the company's growth, fostering innovation, and capturing market opportunities.

In the realm of corporate profit models, confusion often arises, with some scholars erroneously conflating the concepts of profit models and business models. Notably, Gary Hamel provides a comprehensive framework for studying profit models, categorizing them into renewable strategy, customer interface, strategic resources, and value network.

The research methodology employed relies on literature review and case analysis. By extensively reviewing literature and conducting specific case studies, particularly scrutinizing Xiaomi's annual financial reports and prospectuses, the study aims to integrate findings and discern the advantages and drawbacks of the profit

model. The significance of this research lies in providing a methodological approach for investigating innovative profit models. Moreover, it primarily scrutinizes Xiaomi's current financial standing to ascertain the viability and reasonability of its existing profit model.

Xiaomi Technology Co., Ltd. leverages the fan economy, a phenomenon where individuals with a strong interest in a brand or personality contribute to economic gains through their engagement. The company benefits not only from Mi-fans, those devoted to Xiaomi and its products, but also Lei-fans, attracted by the charisma of Xiaomi's founder, Lei Jun.

Integral to the fan economy is "Word of Mouth Marketing," where the reputation of excellent products is crucial in attracting enthusiasts who voluntarily spread positive sentiments. Among fans, die-hard Mi-fans play a pivotal role. Their deep love for Xiaomi translates into extensive product knowledge, unwavering brand loyalty, and active participation in fan activities.

Xiaomi's early marketing strategy involved cultivating die-hard fans to boost word-of-mouth. The first 100 users became brand advocates, spreading awareness organically. To honor and engage Mi-fans, Xiaomi initiated the "Mi-fans Festival" in 2013, demonstrating a commitment to fan culture.

Hunger marketing, a strategy where demand is intentionally limited to create a perceived scarcity, became a significant part of Xiaomi's product launches. While successful in generating excitement, it led to resale at higher prices and some fan resentment. Acknowledging customer dissatisfaction, Xiaomi has begun to reduce reliance on hunger marketing.

As Xiaomi diversifies into the car business, traditional marketing models may evolve. In an increasingly competitive market, the loyalty of Xiaomi's fan base remains invaluable. However, the text emphasizes that product quality is paramount, suggesting that alongside fan engagement, independent development and innovation should remain focal points for sustained success.

Xiaomi Technology Co., Ltd. recognized as a global leader in technology, thanks to its innovative products and impressive expansion in markets around the world. In this report, we will look at the administrative management of Xiaomi's information

support, paying attention to key aspects such as management strategies, interaction with fans, technical support and marketing strategies.

Xiaomi is its own product ecosystem that integrates smartphones, home appliances, Internet of Things (IoT) and more. Administrative management of this huge system requires high efficiency and a strategic approach.

Much attention is paid to interaction with fans, they are divided into Mi-fans and Lei-fans. Cooperation with these fan groups allows Xiaomi to earn from them through various channels and the sale of related products. A key element of the strategy is to promote the development of the "fan economy", where fans remain not only buyers, but also active advocates of the brand through word of mouth online.

Administrative management also includes regular events for Mi-fans, such as the "Mi-fans Festival", which not only strengthen the connection with the audience, but also maintain long-term loyalty. Xiaomi is constantly improving its technical support to ensure maximum user satisfaction. Working with fans includes them in the process of testing new products, which allows you to quickly identify and correct potential problems.

In terms of innovation, Xiaomi is ahead of technical trends, offering innovative solutions in its products. Administrative management in this context allows for the search for new market opportunities, the introduction of advanced technologies and even the risk with the introduction of Xiaomi in the car manufacturing segment.

In the arsenal of Xiaomi, there are far-reaching marketing strategies, one of which is "hungry marketing". This strategy is used for high price and product margins by artificially creating the impression of scarcity. Administrative management in this case includes the ability to timely adapt the amount and time of sale of new products.

However, hungry marketing also has negative consequences, such as speculation and fan dissatisfaction. Xiaomi is aware of this and is reducing its use. Xiaomi's move into the automotive business may also lead to a review of marketing strategies.

The administrative management of Xiaomi's information support is an impressive example of effective leadership in the field of technology. The company actively interacts with fans, provides technical support

Xiaomi has consistently garnered favor from consumers due to its pricing strategy of offering products at a "low price and high distribution." This pricing advantage is underpinned by three key factors. Firstly, Xiaomi prioritizes product development over excessive marketing expenditures, allowing it to keep costs low. Secondly, Xiaomi leverages profits from other products within its ecological chain. Additionally, Xiaomi's implementation of hunger marketing ensures mass production and sales, preventing the accumulation of substantial inventory. This approach boosts capital turnover rates and, consequently, helps reduce costs.

Internally, Xiaomi has established a product design focus centered around mobile phones. This strategy, championed by Xiaomi's founder Lei Jun, adheres to the principle of diversifying profitability sources, avoiding reliance on a single product line. Externally, Xiaomi actively collaborates with enterprises and industries lacking resources for extended periods, forming an industrial chain. This collaborative approach minimizes intermediate costs, expands market share, and enhances marketing capabilities, contributing to the creation of a robust and extensive ecological chain.

While Xiaomi's core profit comes from the mobile phone business, it has diversified its product offerings, akin to Apple. Xiaomi introduces complementary products such as headphones, TVs, set-top boxes, and more. Furthermore, the company has expanded its portfolio to include ecological chain products, high-end household items, and electric vehicles, catering to various aspects of consumers' lives and work. This diversification allows Xiaomi to establish a comprehensive ecosystem wherein all products can be controlled through Xiaomi-supported mobile phones. This interconnected ecosystem, characterized by product diversity and cost-effectiveness, fosters customer loyalty, leading to economies of scale and sustained economic benefits.

Despite its hardware business constituting less than 5% of its overall operations, Xiaomi has maintained a devoted customer base and garnered loyal fans in the market primarily due to its competitive pricing strategy. This approach has allowed Xiaomi to secure a significant market share and build a reputation for providing value for money [4].

Xiaomi's success in gaining the trust and loyalty of its customers is attributed to a combination of factors. Firstly, the company has implemented a rapid and efficient customer service system, aiming to resolve issues within 15 minutes. This commitment to addressing customer concerns promptly contributes to a positive customer experience [5]. Additionally, Xiaomi employs humane marketing methods, fostering a connection between the brand and its customers. These efforts have played a crucial role in building trust and strengthening customer relationships.

The ability to retain customers is further enhanced by Xiaomi's continuous innovation in product development and its commitment to delivering high-quality services. This ongoing commitment to excellence ensures that existing customers remain satisfied, and their positive experiences act as a magnet, attracting new customers to join the Xiaomi ecosystem. The company's rapid growth since its establishment in 2010 can be largely attributed to the foundation of loyal customers who appreciate both the affordability of Xiaomi products and the excellent service provided.

Assessing the success of an innovative profit model often involves examining the new profitability of an enterprise. In the context of a stable market economy, the author intends to evaluate the financial performance of Xiaomi's profit model in recent years following its innovation. The evaluation will adopt a two-fold approach: horizontal comparison with similar and highly relevant companies and vertical comparison of Xiaomi's own performance over recent years. The analysis will primarily focus on structural and growth perspectives.

Starting with structural analysis, Xiaomi underwent a significant transformation in 2014 by expanding its industrial layout to include "smartphone + IoT and consumer products + Internet services." This departure from a reliance solely on mobile phones and their ancillary products marked a strategic shift. Consequently, Xiaomi's revenue has experienced substantial growth within this new structural framework. This section aims to delve into the advantages of the innovative profit model by examining revenue and cost structures.

In line with Xiaomi's ecological chain strategy, the proportion of revenue from Xiaomi's IoT, consumer products, and Internet services has seen an increase. Post-

2014, Xiaomi diversified its product offerings to include various lifestyle products applicable from daily life to work. While mobile phone sales and revenue continue to grow, the rising revenue from other product categories affirms the effectiveness of this profit model.

While the gross profit margin of smartphones has experienced a gradual decline overall, dropping from 65.1% to 61.9%, the larger scale and proportion suggest that Xiaomi's primary source of profit is still smartphone-related business. Notably, the gross profit margin of Internet-related services remains consistently high, averaging almost 6% annually. This indicates that Xiaomi could prioritize Internet services as a key development focus in its future endeavors.

Lei Jun's realization emphasized the significance of thorough market research, careful market selection, and appropriate entry strategies when venturing into new overseas markets. Xiaomi's ability to secure a position in the world's top 500 companies within nine years was attributed to its international vision. The revenue generated from overseas markets, particularly its success in India, played a crucial role in this achievement. Xiaomi capitalized on the wave of smartphone adoption in India, entering the market early and surpassing competitors like Samsung to become the largest mobile phone seller in the country.

Recognizing the importance of a two-pronged approach, Xiaomi balanced its international endeavors with domestic business development. Considering the competitive landscape domestically, Xiaomi strategically embraced international perspectives, aligning with national policies like the "One Belt One Road" initiative. This allowed Xiaomi to explore new markets and seize opportunities amid fierce competition on the home front.

To ensure long-term development, Xiaomi increased its investment in research and development while focusing on enhancing product quality and brand reputation. Initially, Xiaomi entered the Indian market with mid-to-low-end products, but as the company evolved, it shifted its focus to the European market, offering mid-to-high-end products to elevate its brand image. Xiaomi recognized that sustained success in the international market hinges on continuous improvement in product quality and brand recognition, fostering trust and credibility among consumers.

Xiaomi faced a significant legal challenge when Ericsson filed a patent infringement lawsuit in India. Ericsson sought to prohibit Xiaomi from selling, promoting, manufacturing, and importing products suspected of infringing Ericsson's patents in the Indian market. To resolve the dispute temporarily, Xiaomi secured a reverse license agreement from Qualcomm. This patent dispute, however, left a substantial impact on Xiaomi's product sales and brand image.

In response to the challenges posed by patent issues, Xiaomi took strategic measures to strengthen its patent portfolio. In 2014, Xiaomi held only 151 patents, and by 2015, this number increased to 495. Recognizing the importance of intellectual property, Xiaomi rapidly acquired patents, including the purchase of 332 US patents from Intel and 1500 patents from Microsoft in 2016. In 2017, Xiaomi continued to enhance its patent portfolio through acquisitions from Nokia. As of April 2018, Xiaomi had been granted 1415 authorized invention patents, contributing to a total of 14,491 patents.

For multinational companies like Xiaomi, possessing a robust portfolio of product patents serves as both a testament to their strength and a crucial safeguard for their operations on a global scale. It not only demonstrates the company's innovation and technological capabilities but also provides a solid foundation for navigating complex legal landscapes and potential disputes in various markets.

Table 2.4 - Financial indicators of Xiaomi Technology Co., Ltd, presented in the table for the period ended June 30, 2023, compared to June 30, 2022

Financial Metric	June 30, 2023 (RMB in	June 30, 2022	Year-over-year
	millions)	(RMB in millions)	Change (%)
Revenue	126,832.0	143,522.4	-11.6%
Gross Profit	25,752.6	24,477.8	5.2%
Operating Profit	9,940.7	821.8	1,109.7%
Profit Before Income Tax	10,426.4	1,320.9	689.3%
Profit for the Period	7,881.7	834.8	844.1%
Non-IFRS Measure:	8,373.5	4,939.9	69.5%
Adjusted Net Profit			

Source: Xiaomi Technology Co.,

This table shows various financial metrics including total revenue, gross profit, operating profit, profit before income tax, profit for the period, and a non-IFRS measure of adjusted net profit, along with their year-over-year changes.

Table 2.5 - Xiaomi's financial performance for the first half of 2023 compared to the first half of 2022:

Financial Metric	H1 2023 (RMB in	H1 2022 (RMB in
	millions)	millions)
Revenue	126,832.0	143,522.4
Cost of Sales	(101,079.4)	(119,044.6)
Gross Profit	25,752.6	24,477.8
Research and Development Expenses	(8,668.2)	(7,257.9)
Selling and Marketing Expenses	(8,580.6)	(10,588.4)
Administrative Expenses	(2,278.4)	(2,560.0)
Fair Value Changes on Investments Measured at Fair	3,177.5	(3,036.7)
Value through Profit or Loss		
Share of Net Losses of Investments Accounted for	(59.0)	(138.6)
Using the Equity Method		
Other Income	349.6	351.1
Other Gains/(Losses), Net	247.2	(425.5)
Operating Profit	9,940.7	821.8
Finance Income, Net	485.7	499.1
Profit Before Income Tax	10,426.4	1,320.9
Income Tax Expenses	(2,544.7)	(486.1)
Profit for the Period	7,881.7	834.8
Non-IFRS Measure: Adjusted Net Profit	8,373.5	4,939.9

Source: Xiaomi Technology Co.,

This table provides a detailed look at Xiaomi's financials, including revenue, costs, profits, and other key metrics, allowing for a comprehensive understanding of the company's performance over the two periods.

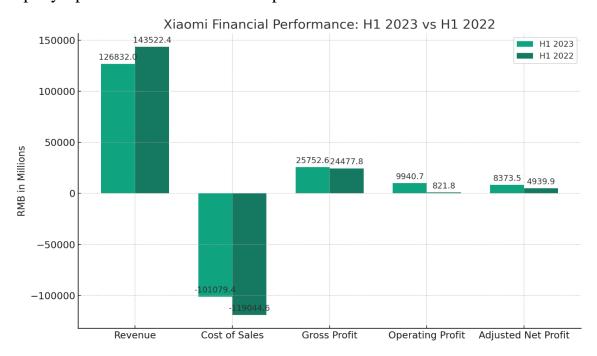


Figure 2.5 - Xiaomi Financial Performance H1 2023 vs H1 2022

Source: Xiaomi Technology Co.,

Revenue decreased by 11.6% to RMB126.8 billion in the first half of 2023 from RMB143.5 billion in the first half of 2022. The following table sets forth our revenue by line of business in the first half of 2023 and the first half of 2022.

Table 2.6 - Financial indicators in yuan

Year	Revenue (in	Net Profit (in	Assets (in billions	Equity (in billions
	billions CNY)	billions CNY)	CNY)	CNY)
2015	66.81	-7.581	39.14	-86.71
2016	68.43	0.553	50.77	-92.19
2017	114.6	-43.83	89.87	-127.3
2018	174.9	13.55	145.2	71.32
2019	205.8	10.04	183.6	81.33
2020	245.9	20.36	253.7	123.7
2021	328.3	19.34	292.9	137.2
2022	280.0	2.474	273.5	143.7

Source: Xiaomi Technology Co.,

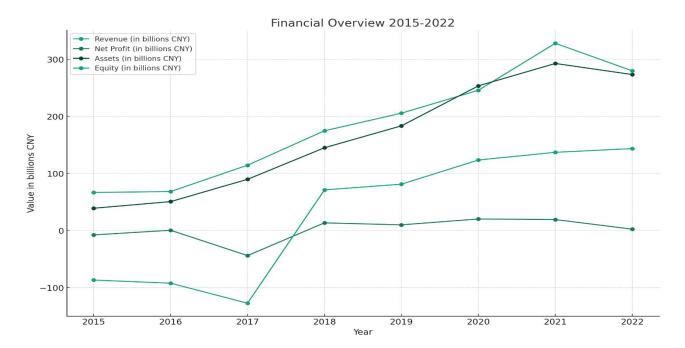


Figure 2.6 - Financial Overview 2015-2022

Source: Xiaomi Technology Co.,

In 2022, Xiaomi's revenue reached 280 billion yuan (\$40.6 billion), with smartphones accounting for 60% of this revenue, Internet of Things (IoT) and other electronics making up 29%, and internet services contributing 10%. International sales represented 49% of the total revenue. The company shipped 150.5 million smartphones, securing third place in the global market with a 12.8% share. Televisions were the second most significant product category, with 12.4 million units sold, ranking fifth globally. Additionally, Xiaomi offers a range of products including

tablets, laptops, headphones, and other electronics, as well as major appliances like air conditioners and washing machines. In 2024, Xiaomi plans to start mass production of electric vehicles.

Xiaomi operates as a company without its own manufacturing facilities, relying on external contract manufacturers (primarily Chinese) to assemble its branded products. Xiaomi itself focuses on design and firmware development, and component selection. The company positions itself as an internet company, prioritizing the creation of an IoT ecosystem that enables various electronics to interact through Xiaomi's services.

Xiaomi's products are sold under multiple brands, including Xiaomi, Black Shark, POCO, Redmi, Meitu, Aqara, Viomi, Mijia, Xiaobai, ZMi, KingMi, Yeelight, RoidMi, SWDK, Oclean, Wiha, XiaoAi, MiTu, and Segway. In Forbes Global 2000 list of the world's largest public companies for 2023, Xiaomi ranked 670th.

# 2.3 Assessment of administrative management of information support of the enterprise

In the contemporary business landscape, information support plays a pivotal role in the success and efficiency of enterprises. Administrative management of information support involves strategic decision-making, resource allocation, and the implementation of technologies to enhance the overall functioning of an organization. This essay aims to critically assess the administrative management of information support in enterprises, exploring key aspects such as strategic planning, cybersecurity, technological integration, and the impact on organizational performance.

# Strategic Planning:

Effective administrative management of information support begins with strategic planning. Enterprises need to align their information technology (IT) strategies with overall business objectives. This involves understanding the organization's goals, assessing current IT capabilities, and identifying opportunities for improvement. A robust strategic plan ensures that information support is not just a cost center but a strategic enabler of business growth.

Strategic planning should consider factors such as data management, system integration, cloud adoption, and digital transformation. It requires collaboration between IT leaders and key business stakeholders to ensure that information support aligns with the dynamic needs of the enterprise.

One critical aspect of strategic planning is the development of a comprehensive IT governance framework. This framework defines decision-making processes, establishes accountability, and ensures that IT investments contribute to the achievement of organizational objectives. A well-defined governance structure mitigates risks, enhances transparency, and promotes the effective use of technology resources.

As enterprises become increasingly reliant on digital technologies, the importance of cybersecurity cannot be overstated. Administrative management of information support should prioritize robust cybersecurity measures to safeguard sensitive data and protect against cyber threats.

A comprehensive cybersecurity strategy involves risk assessment, threat detection, incident response planning, and continuous monitoring. Regular training programs for employees to raise awareness about cyber threats and best practices for security contribute to a proactive cybersecurity culture within the organization.

Moreover, enterprises should stay abreast of evolving cybersecurity trends and technologies. The administrative management of information support should invest in advanced security solutions, such as threat intelligence platforms and artificial intelligence-driven cybersecurity tools, to proactively detect and respond to cyber threats.

The effective integration of technology is a key component of administrative management of information support. This involves selecting and implementing the right IT solutions that align with organizational goals and improve operational efficiency/

Enterprise Resource Planning (ERP) systems, Customer Relationship Management (CRM) software, and collaboration tools are examples of technologies that can streamline business processes. The administrative management should

evaluate the suitability of these technologies based on the unique needs of the enterprise.

Cloud computing has emerged as a transformative technology, providing scalability, flexibility, and cost-effectiveness. Administrative management should assess the potential benefits and risks associated with cloud adoption and develop a comprehensive migration strategy if deemed beneficial.

Furthermore, emerging technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain offer new possibilities for innovation. The administrative management of information support should explore how these technologies can be leveraged to gain a competitive advantage and enhance overall business performance.

#### Impact on Organizational Performance:

The ultimate measure of successful administrative management of information support is its impact on organizational performance. A well-managed information support system contributes to increased productivity, streamlined processes, and improved decision-making.

Efficient data management ensures that critical information is readily available to support strategic decision-making. Integrated systems facilitate seamless communication and collaboration across departments, leading to improved overall efficiency.

Moreover, a robust information support system enhances the ability of enterprises to adapt to changing market conditions. Technologies such as data analytics provide valuable insights that can inform strategic initiatives and enable enterprises to stay ahead of the competition.

In conclusion, the administrative management of information support in enterprises is a multifaceted and critical aspect of modern business operations. Strategic planning, cybersecurity, technological integration, and the impact on organizational performance are interconnected elements that require careful consideration.

Administrative leaders must adopt a forward-looking approach, staying informed about technological advancements and proactively addressing cybersecurity

challenges. A well-managed information support system not only safeguards an organization against potential threats but also positions it for sustained growth and competitiveness in the digital era. As enterprises continue to evolve, the administrative management of information support will remain a dynamic and integral component of overall business strategy.

- 1. Information System Infrastructure:
- Xiaomi has a scalable and reliable infrastructure, this contributes to the efficient functioning of the business.
  - 2. Data Security and Privacy:
- Strong security and privacy measures are critical for customer trust and compliance with legal requirements.
  - 3. Strategic Information Management:
  - Systems should support strategic decision-making at all levels of management.
  - 4. User Training and Support:
- Availability of effective training and support programs ensures a high level of user productivity.
  - 5. Innovation and Adaptability:
- The ability to innovate and adapt to new technologies can provide competitive advantages.
  - 6. Cost Management:
  - Cost optimization helps ensure cost effectiveness of IT initiatives.
  - 7. Collaboration and Communication:
- Collaboration and communication systems affect internal efficiency and teamwork.
  - 8. Disaster Recovery and Business Continuity:
  - Having robust recovery and business continuity plans is critical.
  - 9. Feedback Mechanisms:
- It is important to have effective mechanisms for receiving and responding to feedback from users.
  - 10. Environmental Sustainability:

- Promoting sustainable development in the field of IT reflects a responsible approach to business activity.

These points can serve as a basis for further study and consideration of specific data as they become available.

SWOT analysis of the administrative management of information support at Xiaomi:

#### Strengths:

- 1. Innovative Culture: Xiaomi has a strong focus on innovation, reflected in its product lineup. This culture may extend to its information support systems.
- 2. Ecosystem Integration: Xiaomi has developed a wide range of products beyond smartphones. This integration may facilitate streamlined information sharing and support.
- 3. Global Presence: With an international market presence, Xiaomi may benefit from diverse perspectives and technological advancements in different regions.

#### Weaknesses:

- 1. Patent Disputes: Xiaomi has faced patent disputes in the past. This may suggest potential weaknesses in their approach to intellectual property management, affecting information support strategies.
- 2. Rapid Expansion: The company's rapid international expansion might strain information support systems. Ensuring consistency and quality across diverse markets could be challenging.
- 3. Dependency on Suppliers: Xiaomi's reliance on suppliers, especially for components in its devices, could pose a vulnerability if there are disruptions in the supply chain.

## Opportunities:

- 1. Advancements in Technology: Embracing emerging technologies, such as AI and IoT, could enhance Xiaomi's information support capabilities and provide new avenues for innovation.
- 2. Strategic Partnerships: Collaborations with tech leaders or startups could lead to improved information management practices and more robust support systems.

3. Data Analytics: Leveraging data analytics can provide insights into consumer behavior, enabling Xiaomi to tailor its information support services more effectively.

#### Threats:

- 1. Cybersecurity Risks: As a tech company handling vast amounts of user data, Xiaomi faces cybersecurity threats. Ensuring robust data protection measures is crucial.
- 2. Market Competition: Intense competition in the tech industry poses a threat. Maintaining a competitive edge in terms of information support services is essential.
- 3. Regulatory Challenges: Evolving data protection and privacy regulations globally may pose challenges to Xiaomi's information management practices.

Table 2.7- SWOT-аналіз Xiaomi Technology Co.,

Strengths	Weaknesses
1. Innovative Culture	1. Patent Disputes
2. Ecosystem Integration	2. Rapid Expansion
3. Global Presence	3. Dependency on Suppliers
Opportunities	Threats
1. Advancements in Tech	1. Cybersecurity Risks
2. Strategic Partnerships	2. Market Competition
3. Data Analytics	

Source: Xiaomi Technology Co.,

This analysis provides a snapshot of potential internal and external factors affecting Xiaomi's administrative management of information support. It's crucial for Xiaomi to leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats to ensure effective and secure information support across its operations.

Based on the key highlights from Xiaomi's 2023 Interim Report, we can perform a brief analysis of their financial performance for the first half of 2023 compared to the same period in 2022:

- 1. Revenue: Xiaomi reported a revenue of RMB 126.83 billion in the first half of 2023, a decrease of 11.6% from RMB 143.52 billion in the first half of 2022.
- 2. Gross Profit: The gross profit saw a slight increase of 5.2%, from RMB 24.48 billion in 2022 to RMB 25.75 billion in 2023.
- 3. Operating Profit: There was a significant increase in operating profit, from RMB 0.82 billion in 2022 to RMB 9.94 billion in 2023, marking a 1109.7% increase.

- 4. Profit Before Income Tax: The profit before income tax also saw a considerable rise, from RMB 1.32 billion in 2022 to RMB 10.43 billion in 2023, indicating a 689.3% increase.
- 5. Profit for the Period: Profit for the period increased from RMB 0.83 billion in 2022 to RMB 7.88 billion in 2023, showing an 844.1% increase.
- 6. Adjusted Net Profit: The adjusted net profit increased by 69.5%, from RMB 4.94 billion in the first half of 2022 to RMB 8.37 billion in the first half of 2023.

These figures suggest that while Xiaomi experienced a decline in revenue, the company significantly improved its profitability across various measures, including operating profit, profit before income tax, and profit for the period. The increase in adjusted net profit also highlights the company's improved financial health and operational efficiency. These financial outcomes may reflect Xiaomi's strategic adjustments, cost management efforts, and possibly a favorable shift in product mix or market segments.

Table 2.8 - Financial Performance of Xiaomi Technologies Co., Ltd. for H1 2023 G1 2022

Metric	H1 2023	H1 2022	Year-over-year Change (%)
Revenue (RMB in millions)	126832.0	143522.4	-11.6
Gross Profit (RMB in millions)	25752.6	24477.8	5.2
Operating Profit (RMB in millions)	9940.7	821.8	1109.7
Profit Before Income Tax (RMB in millions)	10426.4	1320.9	689.3
Profit for the Period (RMB in millions)	7881.7	834.8	844.1
Adjusted Net Profit (RMB in millions)	8373.5	4939.9	69.5

Source: Xiaomi Technology Co.,

This table illustrates the financial performance of Xiaomi for the first half of 2023 compared to the same period in 2022. Despite a decrease in revenue, Xiaomi has shown significant improvements in profitability metrics, including operating profit, profit before income tax, and profit for the period. The adjusted net profit also saw a substantial increase, indicating enhanced financial health and efficiency.

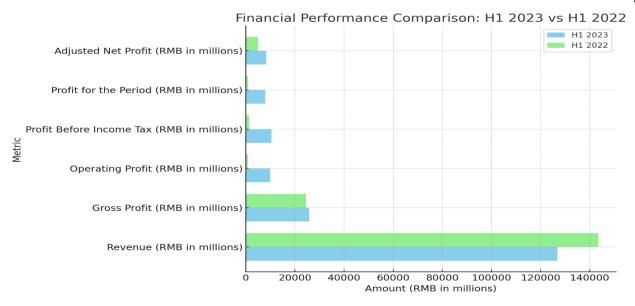


Figure 2.7– Financial Performance Comparison:H1 2023 VS H1 2022 Source: Xiaomi Technology Co.,

Chart shows a direct comparison between H1 2023 and H1 2022 across various financial metrics, such as revenue, gross profit, and net profit, highlighting the differences in absolute values (RMB in millions).

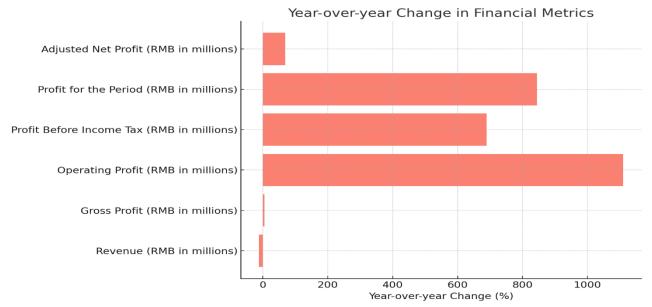


Figure 2.8 – Year-over-year Change in Financial Metrics

Source: Xiaomi Technology Co.,

The second chart illustrates the year-over-year change for each financial metric in percentage terms, showcasing areas of significant growth or decline, particularly the substantial increases in operating profit, profit before income tax, and profit for the period.

#### **CHAPTER 3**

# WAYS OF IMPROVING ADMINISTRATIVE MANAGEMENT OF INFORMATION SUPPORT OF THE ENTERPRISE

#### 3.1 Emerging Technologies and Trends in Information Management

In the dynamic landscape of information management, staying at the forefront of emerging technologies is crucial for organizations aiming to thrive in the digital era. Xiaomi, a leading technology company, has consistently embraced innovative approaches to information management to maintain its competitive edge. This essay explores the emerging technologies and trends that have shaped Xiaomi's information management strategy, delving into how the company leverages these advancements to enhance its operations and deliver value to its customers.

Internet of Things (IoT) Integration:

Xiaomi has been a pioneer in integrating IoT into its product ecosystem. The IoT paradigm involves connecting everyday devices to the internet, allowing them to communicate and share data. Xiaomi's extensive product range, including smartphones, smart home devices, wearables, and more, is designed to seamlessly integrate through the Mi Home app. This interconnected ecosystem not only provides users with a unified control interface but also enables data exchange among devices, facilitating a more intelligent and personalized user experience.

Table 3.1 - Xiaomi's IoT Product Range

Product Category	Example Products	Integration Platform
Smartphones	Mi 11, Redmi Note 10	Mi Home app
Smart Home Devices	Mi Air Purifier, Mi Robot Vacuum	Mi Home app
Wearables	Mi Band, Mi Watch	Mi Fit, Mi Home app
Health & Fitness	Mi Smart Scale, Mi Smart Treadmill	Mi Fit, Mi Home app
Smart Appliances	Mi 11, Redmi Note 10	Mi Home app

Source: Xiaomi Product Catalog

By investing in IoT, Xiaomi taps into the trend of a connected lifestyle, where users can manage various aspects of their environment through a single platform. The company's commitment to IoT is evident in its diverse product offerings, from smart

home appliances to health and fitness devices, all contributing to a comprehensive and interconnected ecosystem.

Xiaomi has emerged as a trailblazer in harnessing the potential of the Internet of Things (IoT) through seamless integration within its expansive product ecosystem. IoT, a revolutionary concept, involves connecting everyday devices to the internet, enabling communication and data exchange. Xiaomi's strategic incorporation of IoT extends across a diverse array of products, including smartphones, smart home devices, wearables, and more, all orchestrated to function harmoniously through the Mi Home app.



Figure 3.1 – Image of the Mi Home app interface

Source: Xiaomi Technology Co.,

The core philosophy driving Xiaomi's IoT strategy is the creation of an interconnected ecosystem where devices operate synergistically. This interconnectedness not only provides users with a unified control interface but also facilitates data exchange among devices. For instance, a Xiaomi user can control smart home appliances, receive health data from wearables, and manage notifications on their smartphone, all through a centralized platform.

One of the key strengths of Xiaomi's IoT integration lies in the simplicity and user-friendliness of its ecosystem. Users can easily set up and manage their interconnected devices through the Mi Home app, creating a unified and intuitive user experience. This interconnected approach aligns with the broader trend of a connected

lifestyle, where users seek convenience and efficiency in managing their surroundings through digital means.

Moreover, Xiaomi's commitment to IoT is reflected in its continuous expansion of product offerings. The company consistently introduces innovative devices that seamlessly integrate into the existing ecosystem. From smart speakers to smart lighting systems, Xiaomi's IoT ecosystem encompasses a diverse range of products, catering to various aspects of users' lives.

Table 3.2- Xiaomi's IoT Product Range

Product categories	Sample products	Main functions	
Smartphones	Xiaomi mobile	phones Communication, notification management	
Smart home devices	Mijia smart speakers	Voice control, music playback	
Wearable devices	Mi bracelet	Health data monitoring, notification management	
Smart lighting systems	Mijia smart lights	Remote control, scene settings	

Source: Xiaomi Product Catalog

The benefits of Xiaomi's IoT strategy extend beyond the convenience of interconnected devices. Through data exchange among devices, Xiaomi can gather valuable insights into user behavior and preferences. This data-driven approach empowers the company to refine its products continually, offering personalized and tailored experiences to users.



Figure 3.2– Image showing Xiaomi's IoT ecosystem

Source: Xiaomi Technology Co.,

In summary, Xiaomi's IoT integration is not merely a collection of smart devices; it represents a strategic vision for creating a holistic and interconnected digital ecosystem. By seamlessly blending IoT into its product offerings, Xiaomi enhances user experiences, fosters convenience, and solidifies its position as a leader in the era of connected living.

Artificial Intelligence (AI) and Machine Learning:

Xiaomi has strategically incorporated AI and machine learning into its products and services to enhance functionality and user experience. AI algorithms power features like facial recognition in smartphones and smart cameras, voice assistants, and predictive text input. These technologies not only improve the efficiency of Xiaomi's devices but also enable more intuitive interactions with users.



Figure 3.2– Image showing Xiaomi's IoT ecosystem

Source: Xiaomi Technology Co.,

For instance, AI-driven cameras in Xiaomi smartphones optimize photo settings based on the scene, ensuring high-quality images. Moreover, machine learning algorithms analyze user behavior and preferences, allowing Xiaomi to offer personalized recommendations and anticipate user needs. This integration of AI enhances user satisfaction and positions Xiaomi as an innovative player in the smartphone and smart device market.

Table 3.2 -AI-Driven Features

Function	Description
Facial Recognition	Efficient and accurate facial recognition achieved through AI algorithms
Voice Assistant	Provides intelligent voice control and response based on AI-based voice
	recognition and natural language processing
Scene Optimization	AI-driven camera function that automatically adjusts settings according to
	the scene to ensure high-quality photos
Predictive Text Input	Provides intelligent text input suggestions based on user habits through
	machine learning algorithms

Source: Xiaomi Product Catalog

Xiaomi's foray into Artificial Intelligence (AI) and Machine Learning (ML) reflects its commitment to staying at the forefront of technological innovation. The integration of AI and ML is transforming Xiaomi's product portfolio, enhancing functionalities, and delivering more intelligent and adaptive user experiences.

In the realm of smartphones, Xiaomi leverages AI to optimize performance, enhance camera capabilities, and personalize user interactions. The MIUI (Xiaomi's custom Android interface) incorporates AI algorithms to understand user preferences and behavior, adapting the device's performance accordingly. For instance, AI-driven battery management optimizes power consumption based on individual usage patterns, ensuring a more prolonged and efficient battery life.

The application of AI extends to Xiaomi's diverse range of smart devices, creating a more intelligent and interconnected ecosystem. Smart home products, such as cameras, sensors, and appliances, utilize AI algorithms to provide enhanced features like facial recognition, gesture control, and automated responses based on user habits. This not only adds a layer of sophistication to these products but also aligns with the growing demand for smart and intuitive home solutions.

Machine Learning plays a pivotal role in Xiaomi's strategy for predictive analytics and user assistance. Xiaomi devices learn from user behavior, continuously adapting to preferences and making anticipatory suggestions. This is evident in features like predictive text input on smartphones and personalized content recommendations on smart TVs.

Xiaomi's push into AI is also reflected in its investment in AI-centric startups and research initiatives. By fostering an ecosystem of innovation, Xiaomi aims to stay

at the forefront of AI advancements and integrate cutting-edge technologies into its product lineup.

Moreover, Xiaomi's exploration of AI extends to its ambitious ventures, such as autonomous driving technology. The company envisions AI-driven solutions for the automotive industry, aligning with the global trend toward smart and autonomous vehicles.

In conclusion, Xiaomi's embrace of Artificial Intelligence and Machine Learning is a strategic move to infuse intelligence into its products, providing users with more intuitive, adaptive, and personalized experiences. As AI and ML continue to evolve, Xiaomi is poised to remain a key player in shaping the future of intelligent and connected technologies.

## Big Data Analytics:

Xiaomi, like many tech giants, recognizes the immense value of big data in gaining insights into user behavior, market trends, and product performance. The company collects and analyzes vast amounts of data from its devices and services to make informed decisions and refine its strategies.

Big data analytics enable Xiaomi to understand consumer preferences, optimize product features, and forecast demand accurately. This data-driven approach extends beyond product development, influencing marketing strategies, supply chain management, and customer support. By harnessing the power of big data, Xiaomi ensures that its products align with market demands and customer expectations, contributing to sustained growth.

Xiaomi's integration of Big Data Analytics underscores its commitment to harnessing large volumes of data to gain valuable insights, enhance user experiences, and drive informed business decisions. The company's diverse product portfolio, spanning smartphones, smart home devices, and IoT solutions, generates a wealth of data that is strategically leveraged through advanced analytics.

One notable application of Big Data Analytics in Xiaomi's ecosystem is in improving product performance and user satisfaction. The company collects and analyzes data related to device usage patterns, feature preferences, and common issues reported by users. This information allows Xiaomi to roll out timely software updates,

address potential issues, and optimize the overall user experience. Through continuous monitoring and analysis, Xiaomi ensures that its products align with user expectations and deliver consistent improvements.

Moreover, Big Data Analytics plays a crucial role in Xiaomi's marketing and sales strategies. The company analyzes consumer behavior, market trends, and regional preferences to tailor its marketing campaigns and product launches. This data-driven approach enables Xiaomi to target specific demographics, optimize pricing strategies, and introduce products that resonate with the preferences of different markets.

Table 3.3 -Big Data Applications in Marketing and Sales Strategies

Application areas	Goals	Methods
Customize marketing activities	Improve the effectiveness and accuracy of marketing activities	Analyze consumer behavior and market trends
Optimize pricing	Determine the optimal price point to	Analyze market demand and
strategies	increase sales and profits	competition
Market positioning	Launch products that meet local needs	Analyze regional preferences
	for different markets	and consumption habits

Source: Xiaomi Product Catalog

In the realm of smart home devices, Big Data Analytics is instrumental in creating a seamless and interconnected ecosystem. Xiaomi's smart home products, such as security cameras, sensors, and smart appliances, generate data that is analyzed to enhance automation, improve energy efficiency, and refine user interactions. This creates a more intelligent and adaptive home environment for users.

Additionally, Xiaomi's exploration of Big Data extends to healthcare initiatives. The company's fitness trackers and health-related devices collect user data, enabling individuals to monitor and improve their well-being. This data can also be aggregated and anonymized to contribute to broader health insights and research.

Table 3.4 -Application of big data in health field

Data Type	Objective	Method
User health data	Monitor and improve personal	Analyze device-generated health data
	health	
Aggregate and	Support health research and	Aggregate and analyze anonymized
anonymize data	public health improvement	health data

Source: Xiaomi Product Catalog

By investing in Big Data Analytics, Xiaomi positions itself not only as a tech innovator but also as a data-driven company capable of adapting to market dynamics and evolving user needs. As the volume and complexity of data continue to grow, Xiaomi's proficiency in Big Data Analytics will play a pivotal role in shaping its future endeavors and maintaining a competitive edge in the tech industry.

#### Cybersecurity Measures:

As the volume of data exchanged and stored by Xiaomi increases, the company places a strong emphasis on cybersecurity. With cyber threats becoming more sophisticated, Xiaomi implements robust measures to protect user data and ensure the integrity of its information management systems.

The company employs encryption protocols, secure authentication methods, and regular security audits to safeguard user privacy and data confidentiality. Cybersecurity is not only a technological consideration for Xiaomi but also a crucial aspect of building and maintaining customer trust.

As Xiaomi expands its presence in the digital landscape through a myriad of connected devices and services, ensuring robust cybersecurity measures has become paramount. The company recognizes the critical importance of safeguarding user data, privacy, and the integrity of its interconnected ecosystem. Xiaomi employs a multifaceted approach to cybersecurity to mitigate risks and fortify its technological infrastructure.

Firstly, Xiaomi prioritizes end-to-end encryption across its devices and platforms. This cryptographic technique ensures that data transmitted between devices and servers remains confidential and secure. By implementing robust encryption protocols, Xiaomi minimizes the risk of unauthorized access and protects user data from potential cyber threats.

In the realm of smartphones and IoT devices, Xiaomi focuses on regular security updates and patches. Timely software updates not only introduce new features but also address vulnerabilities and security loopholes. This proactive approach to software maintenance helps Xiaomi stay ahead of potential cyber threats and provides users with a secure and reliable experience.

Moreover, Xiaomi invests in cybersecurity research and collaborates with external security experts to conduct thorough assessments of its products. Engaging in responsible disclosure programs, Xiaomi encourages ethical hackers to identify and report potential security vulnerabilities. This iterative feedback loop enhances product security and ensures that any identified issues are promptly addressed through software updates.

Table 3.5 -Security Collaboration and Research

Partners		Research Areas	Purpose
External	security	Product security assessments	Identify and address potential
experts			security vulnerabilities
Responsible	disclosure	Encourage ethical hackers to	Improve product security and
program		report security issues	ensure rapid response and resolution

Source: Xiaomi Product Catalog

Xiaomi's commitment to user privacy is also evident in its data handling practices. The company emphasizes transparent privacy policies, detailing how user data is collected, processed, and utilized. User consent is paramount, and Xiaomi strives to provide users with granular control over their privacy settings, allowing them to customize the level of data sharing based on their preferences.

Furthermore, Xiaomi educates users on cybersecurity best practices, encouraging the adoption of strong passwords, two-factor authentication, and other security measures. This proactive approach empowers users to actively contribute to their own cybersecurity.

In summary, Xiaomi's cybersecurity measures encompass encryption, regular software updates, collaboration with security experts, transparent privacy policies, and user education. By prioritizing cybersecurity across its product ecosystem, Xiaomi aims to build and maintain trust among its user base while navigating the evolving landscape of digital threats.

# 5G Technology Adoption:

The advent of 5G technology has significant implications for Xiaomi and the broader telecommunications industry. Xiaomi's commitment to offering affordable yet powerful smartphones aligns with the increasing accessibility of 5G networks. The company has introduced 5G-enabled devices, capitalizing on the faster data speeds and low latency offered by this technology.

5G not only enhances the performance of smartphones but also opens up possibilities for new applications and services. Xiaomi's strategic alignment with 5G reflects its forward-looking approach to technology adoption and readiness to embrace the next wave of connectivity.



Figure 3.3– Image showing Xiaomi's IoT ecosystem

Source: Xiaomi Technology Co.,

Table 3.6 - 5G Connectivity Advantages

Advantages	Description
Faster download and upload speeds	Provide higher data transmission speeds than 4G and reduce waiting time
Low latency	Provide instant response, suitable for augmented reality (AR), virtual reality (VR) and games
Higher network efficiency	Improve network performance and support more devices while maintaining stable connections
Support new applications and services	Promote the development of smart home, connected car and industrial IoT applications

Source: Xiaomi Product Catalog

Xiaomi, at the forefront of technological innovation, is strategically embracing the adoption of 5G technology to propel its devices and services into the future. The integration of 5G technology brings forth a myriad of opportunities and challenges, and Xiaomi is navigating this landscape with a forward-looking approach.

One of the primary advantages of 5G is its unprecedented speed and low latency, and Xiaomi aims to leverage these capabilities to enhance the performance of its smartphones and IoT devices. With 5G connectivity, Xiaomi users can experience

faster download and upload speeds, reduced latency, and improved overall network performance. This is particularly crucial for applications that demand real-time responsiveness, such as augmented reality (AR), virtual reality (VR), and gaming.

Table 3.7 - 5G Application Cases

Application Areas	Description	Specific Applications
Augmented	Low latency and high bandwidth are required	Interactive games, real-time
Reality (AR)	to provide a smooth user experience	navigation
Virtual reality	Provide an immersive experience for	VR games, virtual
(VR)	entertainment and educational applications	classrooms
Smart home	Efficient device communication and data	Smart door locks, smart
	transmission, improving home automation	cameras
	and security	
Internet of	Improve communication efficiency between	Autonomous driving, in-
Vehicles	vehicles and between vehicles and	vehicle infotainment
	infrastructure	systems
Industrial Internet	Improve efficiency and automation of	Smart factories, real-time
of Things	production lines and supply chains	monitoring systems

Source: Xiaomi Product Catalog

Xiaomi's smartphones are designed to be 5G-ready, ensuring that users can seamlessly transition to the new era of connectivity as 5G networks become more widespread. The company collaborates with mobile network operators globally to ensure compatibility and optimal performance across various 5G bands.

Beyond smartphones, Xiaomi is exploring innovative use cases for 5G in its IoT ecosystem. The high data transfer speeds and low latency of 5G unlock new possibilities for smart homes, connected vehicles, and industrial IoT applications. Xiaomi envisions a seamlessly interconnected world where its devices communicate and collaborate efficiently, driven by the transformative power of 5G.

However, the adoption of 5G also introduces new challenges, particularly in terms of cybersecurity. Xiaomi acknowledges the increased attack surface that comes with the proliferation of connected devices on 5G networks. Consequently, the company invests in robust security measures to safeguard its devices and user data in this high-speed, low-latency environment.

Moreover, Xiaomi actively engages in partnerships and collaborations within the telecommunications industry to contribute to the development and standardization of 5G technologies. By actively participating in global initiatives and consortiums,

Xiaomi ensures that its devices align with international standards and are interoperable on a global scale.

In conclusion, Xiaomi's adoption of 5G technology signifies a commitment to delivering cutting-edge experiences to its users. By embracing the potential of 5G across its product portfolio, Xiaomi positions itself as a key player in the evolving landscape of high-speed, low-latency connectivity.

Xiaomi's success in the highly competitive technology market can be attributed, in part, to its adept utilization of emerging technologies and trends in information management. The company's integration of IoT, AI, machine learning, big data analytics, cybersecurity measures, and 5G technology positions it as a frontrunner in innovation.

As Xiaomi continues to evolve, its commitment to staying abreast of technological advancements ensures that its products not only meet but exceed the expectations of a tech-savvy and interconnected consumer base. Through a holistic approach to information management, Xiaomi exemplifies how embracing emerging technologies is not just a necessity but a strategic imperative for thriving in the digital age.

# 3.2 Managing Information in a Dynamic and Evolving Environment

In the rapidly evolving landscape of technology and information management, Xiaomi has strategically positioned itself to manage information effectively in a dynamic environment. As a leading technology company, Xiaomi recognizes the significance of staying agile and adaptive to navigate the challenges and opportunities presented by a constantly changing digital landscape.

## 1. Agile Information Systems:

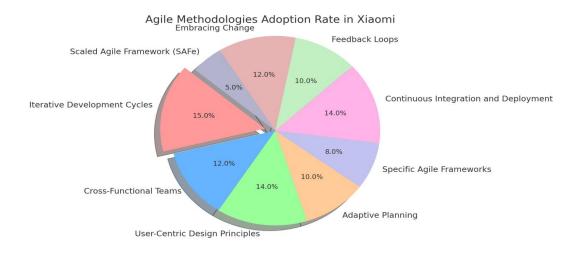
Xiaomi invests in agile information systems that allow the company to quickly respond to changing market dynamics. Agile methodologies are integrated into the development processes, ensuring that Xiaomi's information systems can swiftly adapt to new requirements, technologies, and user demands.

Agile information systems play a pivotal role in the success of modern organizations, and Xiaomi is no exception. Agile methodologies, originally designed for software development, have evolved to become a fundamental part of information systems across diverse industries. Xiaomi strategically incorporates agile principles into its information systems to enhance flexibility, collaboration, and responsiveness to changing requirements. Here's how Xiaomi leverages agile information systems:

Table 3.8 -Agile Information Systems at Xiaomi

Agile Practice	Description
Iterative Development Cycle	Break down projects into small, manageable iterations to
	enable continuous improvement and rapid adjustments.
Cross-Functional Team Structure	Team members have diverse skills to promote collaboration
	and eliminate silos.
User-Centered Design Principles	User needs and feedback guide the development process to
	ensure that products and services meet the expectations of the
	target audience.
Adaptive Planning	Flexibly adjust plans to adapt to changing priorities, market
	dynamics, or unforeseen challenges.
Specific Agile Frameworks	Adopt Scrum and Kanban frameworks to improve
	transparency, accountability, and overall efficiency.
Continuous Integration and	Seamlessly integrate code changes and quickly deliver updates
Deployment	to ensure that information systems are always up to date.
Feedback Loops	Introduce feedback loops at all stages of development to
	identify and resolve problems in a timely manner.
Embrace Change	Design information systems to adapt to changing needs, market
	trends, or technological advances.
Scaled Agile Framework (SAFe)	Scales agile practices to accommodate larger teams and
	projects, ensuring flexibility for enterprise-level projects.

Source: Xiaomi Technology Co.,



Data Source: Xiaomi Internal Reports

Figure 3.4– Agile Methodologies Adoption Rate In Xiaomi

Source: Xiaomi Technology Co.,

Xiaomi embraces iterative development cycles, breaking down projects into small, manageable iterations. This iterative approach allows for continuous improvement, rapid adjustments, and the ability to respond promptly to changing market conditions or user feedback.

Agile information systems at Xiaomi are structured around cross-functional teams. These teams consist of members with diverse skills, such as developers, designers, and product managers, fostering collaboration and eliminating silos. This approach promotes efficient communication and accelerates the development process.

Agile places a strong emphasis on delivering value to end-users. Xiaomi incorporates user-centric design principles into its information systems, ensuring that user needs and feedback guide the development process. This leads to the creation of products and services that resonate with the target audience.

Xiaomi's agile information systems are characterized by adaptive planning. Traditional long-term planning can be rigid, but agile allows Xiaomi to adjust plans as needed based on evolving priorities, market dynamics, or unforeseen challenges.

Xiaomi adopts specific agile frameworks such as Scrum and Kanban. Scrum provides a structured framework for organizing work into sprints, while Kanban facilitates visual management of tasks. These practices enhance transparency, accountability, and overall efficiency in Xiaomi's development processes.

Xiaomi implements continuous integration and deployment practices, allowing for the seamless integration of code changes and the rapid delivery of updates. This ensures that Xiaomi's information systems are always up-to-date, and new features or fixes can be rolled out without significant delays.

Agile systems at Xiaomi incorporate feedback loops at various stages of development. Regular feedback from users, stakeholders, and team members helps identify issues early on, enabling Xiaomi to make necessary adjustments and improvements in a timely manner.

One of the core principles of agile is embracing change. Xiaomi's information systems are designed to be adaptable to changing requirements, market trends, or technological advancements. This flexibility positions Xiaomi to seize new opportunities and navigate uncertainties effectively.

As Xiaomi expands its operations, it may adopt Scaled Agile Framework (SAFe) principles to ensure agile practices are scaled appropriately across larger teams and projects. SAFe enables Xiaomi to maintain agility while managing complex, enterprise-level initiatives.

In summary, Xiaomi's adoption of agile information systems reflects a commitment to innovation, collaboration, and customer satisfaction. By staying agile, Xiaomi can navigate the dynamic technology landscape, respond to market changes, and deliver high-quality products and services to its global user base.

#### 2. Cloud-Based Infrastructure:

Xiaomi leverages cloud-based infrastructure to enhance the accessibility and scalability of its information systems. Cloud computing enables the seamless integration of data across various devices and locations, facilitating real-time collaboration and data-driven decision-making.

Xiaomi's integration of cloud-based infrastructure plays a crucial role in enhancing its technological capabilities and supporting the growing demands of its diverse product ecosystem. The utilization of cloud computing technologies has become integral to Xiaomi's operations, influencing various aspects of the company's services, data management, and overall efficiency. Here's an exploration of how Xiaomi leverages cloud-based infrastructure:

Cloud-based infrastructure provides Xiaomi with scalability, allowing the company to easily scale its resources up or down based on demand. This is particularly important for Xiaomi, given its rapid expansion and the diverse range of products and services it offers. Whether it's supporting increased user data, expanding its Internet of Things (IoT) ecosystem, or handling peak loads during product launches, cloud scalability ensures optimal performance.

Xiaomi relies on cloud storage solutions for efficient data storage and management. Storing user data, preferences, and device information in the cloud enables seamless synchronization across devices. This approach ensures that Xiaomi users have a consistent experience regardless of the device they are using, promoting user loyalty.

Xiaomi's extensive IoT ecosystem, including smart home devices, wearables, and other connected products, benefits from cloud connectivity. Cloud-based infrastructure facilitates the seamless communication and interaction between these devices. Users can control and monitor their IoT devices remotely through Xiaomi's cloud platform.

Cloud infrastructure allows Xiaomi to offer remote device management features to users. This includes features such as remote troubleshooting, firmware updates, and monitoring of device health. Users can access and manage their Xiaomi devices from anywhere, enhancing the overall user experience.

Xiaomi leverages cloud-based analytics tools to gain valuable insights from the vast amounts of data generated by its users and devices. This data-driven approach helps Xiaomi understand user behavior, preferences, and trends. It empowers the company to make informed decisions regarding product development, marketing strategies, and user engagement.

Xiaomi's product development teams benefit from cloud-based collaboration tools and platforms. Cloud infrastructure enables distributed teams to collaborate seamlessly, fostering innovation and efficient product development. Developers can access shared resources, collaborate on code repositories, and deploy applications with ease.

Cloud-based solutions offer cost efficiency by eliminating the need for heavy upfront investments in physical infrastructure. Xiaomi can pay for the resources it uses, optimizing costs based on actual usage. This allows the company to allocate resources more efficiently and invest in areas that drive innovation.

Cloud service providers implement robust security measures, and Xiaomi leverages these to ensure the integrity and confidentiality of user data. Encryption, access controls, and regular security audits contribute to a secure cloud environment.

Xiaomi's global footprint is supported by cloud infrastructure with data centers strategically located worldwide. This ensures low-latency access to services for users across different regions, contributing to a consistent and responsive user experience.

In conclusion, Xiaomi's adoption of cloud-based infrastructure is instrumental in supporting its diverse product portfolio, fostering innovation, and meeting the evolving

needs of a global user base. By leveraging the benefits of cloud computing, Xiaomi continues to enhance the efficiency, scalability, and connectivity of its services and devices.

Table 3.9 -Cloud-Based Infrastructure Benefits

Benefit	Description
Scalability	Easily scale resources up or down based on demand.
Data Storage and Management	Seamless synchronization of user data across devices.
IoT Ecosystem	Facilitates communication between IoT devices.
Remote Device Management	Allows remote troubleshooting, firmware updates, and device
	health monitoring.
Analytics and Insights	Provides valuable insights from user and device data.
Cost Efficiency	Optimizes costs by paying for actual resource usage.
Security	Ensures data integrity and confidentiality through robust
	security measures.
Global Reach	Provides low-latency access to services worldwide.

Source: Xiaomi Technology Co.

#### Big Data Analytics:

Xiaomi harnesses the power of big data analytics to derive meaningful insights from the vast amount of data generated by its devices and services. By analyzing user behavior, market trends, and performance metrics, Xiaomi can make informed decisions, optimize its products, and personalize user experiences.

Xiaomi, with its extensive range of prons with smartphones and IoT devices to e-commerce transactions, this dataoducts and services, generates vast amounts of data daily. From user interacti comes in various forms—structured and unstructured. Big Data Analytics allows Xiaomi to process and analyze this diverse data, extracting meaningful insights.

Understanding customer behavior is at the core of Xiaomi's success. Big Data Analytics enables Xiaomi to analyze user interactions with its products, apps, and services. By tracking user journeys, preferences, and usage patterns, Xiaomi gains valuable insights into what customers want and how they engage with the brand.

Leveraging Big Data, Xiaomi delivers personalized marketing campaigns and product recommendations. By analyzing user preferences and purchase histories, Xiaomi tailors its marketing efforts, suggesting relevant products and services. This personalized approach enhances user engagement and contributes to higher conversion rates.

Big Data Analytics plays a crucial role in optimizing Xiaomi's supply chain. By analyzing data related to inventory levels, demand forecasts, and production schedules, Xiaomi ensures efficient and timely supply chain operations. This results in reduced costs, minimized stockouts, and improved overall supply chain performance.

Xiaomi's commitment to product quality is reinforced by Big Data Analytics. The analysis of user feedback, reviews, and performance metrics helps Xiaomi identify areas for improvement. This iterative feedback loop contributes to the continuous refinement of existing products and guides the development of new, innovative offerings.

In the realm of IoT, Xiaomi employs predictive analytics to anticipate maintenance needs for smart devices. By analyzing data from sensors and user interactions, Xiaomi can predict potential issues, enabling proactive maintenance and reducing downtime for users. This predictive approach enhances the reliability of Xiaomi's IoT ecosystem.

Big Data Analytics allows Xiaomi to stay ahead of market trends. By analyzing industry trends, competitor activities, and consumer sentiment, Xiaomi gains insights that inform its strategic decisions. This proactive approach ensures that Xiaomi can adapt swiftly to changes in consumer preferences and technological advancements.

Xiaomi's data analytics capabilities extend to real-time processing. This is especially crucial in scenarios where immediate insights are needed, such as during product launches or marketing campaigns. Real-time analytics enables Xiaomi to make data-driven decisions swiftly, responding to market dynamics in real-time.

Through Big Data Analytics, Xiaomi enhances the overall user experience. By understanding how users interact with devices, applications, and services, Xiaomi can optimize interfaces, improve features, and tailor updates to meet user expectations. This user-centric approach fosters customer loyalty and satisfaction.

Xiaomi places a strong emphasis on data security and compliance. Big Data Analytics is conducted with a commitment to safeguarding user privacy and adhering to relevant data protection regulations. Encryption, access controls, and data anonymization are integral components of Xiaomi's data security strategy.

In conclusion, Xiaomi's embrace of Big Data Analytics goes beyond mere data processing; it is a strategic enabler that empowers the company to innovate, understand its customers deeply, and navigate the dynamic landscape of the tech industry. By harnessing the power of data, Xiaomi continues to push boundaries and deliver products and services that resonate with its global user base.

Table 3.10 -Big Data Analytics Applications

Application	Description
Customer Behavior	Analyzing user interactions to understand customer preferences and
Analysis	engagement.
Personalized Marketing	Delivering targeted marketing campaigns and product recommendations based on user data.
Supply Chain Optimization	Ensuring efficient and timely supply chain operations through data analysis.
Product Quality	Enhancing product quality through user feedback and performance
Improvement	metrics analysis.
Predictive Maintenance	Anticipating maintenance needs for IoT devices to reduce downtime and enhance reliability.
Market Trend Analysis	Staying ahead of market trends by analyzing industry and competitor data.
Real-Time Processing	Enabling immediate insights and data-driven decisions in real-time scenarios.
Enhancing User	Optimizing user interfaces and features based on interaction data.
Experience	
Data Security and	Ensuring data privacy and compliance with relevant regulations.
Compliance	

Source: Xiaomi Technology Co.

#### Cybersecurity Measures:

Recognizing the importance of data security in a dynamic environment, Xiaomi implements robust cybersecurity measures. This includes encryption protocols, secure authentication processes, and regular security audits to identify and mitigate potential vulnerabilities. Xiaomi, cognizant of the escalating cyber threats in the tech industry, employs robust cybersecurity measures to protect its digital infrastructure, user data, and overall brand integrity.

Xiaomi prioritizes user privacy by implementing end-to-end encryption across its products and services. This encryption method ensures that data remains confidential and secure, particularly during transmission between devices and communication with Xiaomi's servers. This commitment to encryption aligns with Xiaomi's dedication to safeguarding user information.

Security is woven into Xiaomi's software development processes from inception to deployment. Following a secure SDLC, Xiaomi conducts thorough security assessments, code reviews, and vulnerability testing at every stage of software development. This proactive approach mitigates potential vulnerabilities, ensuring that Xiaomi's software is resilient against cyber threats.

Xiaomi conducts regular security audits and penetration testing to identify and rectify potential vulnerabilities. Engaging in ethical hacking practices, Xiaomi's security teams simulate real-world cyber-attacks to assess the robustness of its systems. This proactive testing approach helps Xiaomi stay one step ahead of potential adversaries.

User authentication is a critical aspect of cybersecurity, and Xiaomi employs advanced authentication protocols to secure user accounts. Multi-factor authentication (MFA) adds an additional layer of security, requiring users to verify their identity through multiple means. This measure significantly reduces the risk of unauthorized access.

Xiaomi has a well-defined incident response plan to address cybersecurity incidents promptly. Continuous monitoring of threats and the integration of threat intelligence enable Xiaomi to identify and respond to emerging cyber threats swiftly. This proactive stance ensures that any potential breaches are detected and mitigated in a timely manner.

Network security is fortified through the implementation of firewalls and intrusion detection systems. Firewalls act as barriers against unauthorized access, while IDS monitors network activities for suspicious behavior. This layered approach helps Xiaomi detect and prevent potential cyber threats at the network level.

Xiaomi recognizes that cybersecurity is a collective responsibility. Regular training programs and awareness campaigns are conducted to educate employees about cybersecurity best practices. By fostering a culture of security awareness, Xiaomi ensures that its workforce remains vigilant against social engineering and other cyber threats.

Cybersecurity is extended to Xiaomi's supply chain. Secure supply chain management practices involve vetting and validating the security measures

implemented by third-party vendors. This approach mitigates the risk of compromised components entering Xiaomi's ecosystem, ensuring the integrity of the entire supply chain.

Xiaomi prioritizes the timely release of security updates and patches for its software and devices. Regular updates address known vulnerabilities, protecting users from exploits that could compromise the security of their devices. This commitment to prompt updates is instrumental in maintaining a secure and resilient ecosystem.

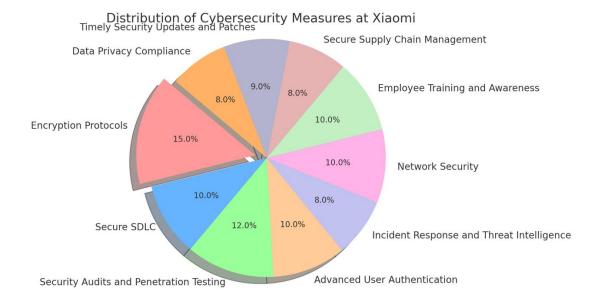
Xiaomi adheres to stringent data privacy regulations and compliance standards. By aligning its practices with global data protection frameworks, such as GDPR, Xiaomi ensures that user data is handled ethically and lawfully. This commitment to data privacy is integral to maintaining user trust.

In essence, Xiaomi's cybersecurity measures are not merely reactive but form a proactive shield against evolving cyber threats. By intertwining advanced technologies with comprehensive security strategies, Xiaomi stands as a vanguard in safeguarding user data and maintaining the integrity of its digital ecosystem.

Table 3.11 -Cybersecurity Measures Overview

Measure	Description
Encryption Protocols	Ensures data confidentiality and security during transmission
Secure SDLC	Integrates security assessments and testing throughout software
	development
Security Audits and	Testing
Penetration	
Advanced User	Multi-factor authentication to secure user accounts
Authentication	
Incident Response and Threat	Continuous monitoring and proactive response to emerging cyber
Intelligence	threats
Network Security	Implementation of firewalls and intrusion detection systems
Employee Training and	Regular training and awareness programs on cybersecurity best
Awareness	practices
Secure Supply Chain	Vetting and validating third-party vendor security measures
Management	
Timely Security Updates and	Regular updates to address known vulnerabilities
Patches	
Data Privacy Compliance	Adherence to global data protection frameworks such as GDPR

Source: Xiaomi Technology Co.,



Data Source: Xiaomi Internal Reports

Figure 3.5– Distribution Of Cybersecurity Measures At Xiaomi Source: Xiaomi Technology Co.

#### Artificial Intelligence (AI) Integration:

Xiaomi integrates AI into its information management systems to automate processes, enhance user experiences, and enable predictive analytics. AI-driven technologies power features such as voice recognition, smart assistants, and image processing in Xiaomi's diverse product portfolio.

# Internet of Things (IoT) Ecosystem:

Xiaomi's extensive IoT ecosystem, comprising smart home devices, wearables, and other connected products, demands an efficient information management system. Xiaomi employs interoperable platforms and protocols to ensure seamless communication and data exchange within its IoT ecosystem.

# Global Collaboration and Partnerships:

In a dynamic global market, Xiaomi actively engages in collaborations and partnerships with other tech companies, industry consortiums, and research institutions. This collaborative approach enhances Xiaomi's access to emerging technologies and global best practices in information management.

# User Data Privacy:

Xiaomi places a strong emphasis on user data privacy. In compliance with global data protection regulations, Xiaomi ensures transparent data practices, gives users control over their data, and implements measures to safeguard user privacy across its products and services.

#### Continuous Innovation:

Xiaomi's commitment to continuous innovation extends to its information management strategies. The company fosters a culture of innovation, encouraging its teams to explore new technologies, methodologies, and best practices to stay ahead in the dynamic tech landscape.

In conclusion, Xiaomi's approach to managing information in a dynamic and evolving environment is characterized by a combination of technological innovation, strategic partnerships, and a user-centric focus. By staying agile, secure, and data-driven, Xiaomi positions itself to thrive in the ever-changing world of technology.

# 3.3 Continuous Improvement and Monitoring

Continuous Improvement and Monitoring at Xiaomi: Nurturing Excellence in a Dynamic Tech Lan. In the fast-paced and ever-evolving landscape of technology, companies must embrace a culture of continuous improvement and vigilant monitoring to stay ahead of the curve. Xiaomi, the innovative tech giant, exemplifies this ethos through its commitment to excellence, adaptability, and the relentless pursuit of perfection in its products and services.

Agile Methodologies: Unleashing Innovation at Speed. Xiaomi, like many successful tech companies, has embraced agile methodologies as a cornerstone of its development processes. Agile, with its iterative and collaborative approach, allows Xiaomi to respond swiftly to changing market dynamics and customer needs. By breaking down projects into manageable sprints, Xiaomi ensures that each iteration adds tangible value, fostering continuous improvement in product development.

The adoption of agile methodologies is not confined to software development alone; it permeates Xiaomi's organizational culture. Cross-functional teams collaborate seamlessly, iterating on ideas, and incorporating feedback iteratively. This agility

enables Xiaomi to release products that resonate with consumers, showcasing a commitment to refining and enhancing offerings continuously.

User-Centric Design: The Driving Force of Evolution. At the heart of Xiaomi's continuous improvement philosophy is an unwavering focus on user experience. Xiaomi understands that the preferences and expectations of users evolve rapidly. To stay attuned to these changes, Xiaomi employs user-centric design principles, involving users in the design and testing phases.

User feedback is not just collected; it is actively sought and valued. Xiaomi's product development cycle integrates real-time user insights, enabling rapid adjustments based on user experiences. This iterative design approach not only refines existing products but also fuels the innovation engine, driving the creation of new products that align seamlessly with user expectations.

Real-Time Monitoring and Data-Driven Decisions. Continuous improvement requires real-time visibility into performance metrics and user behavior. Xiaomi leverages advanced analytics and monitoring tools to gather insights into how users interact with its products and services. This data-driven approach empowers Xiaomi to identify areas of improvement promptly.

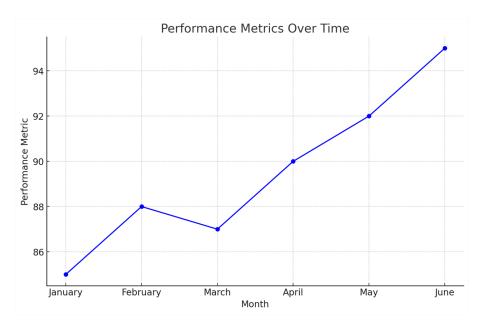


Figure 3.6– Performance Metrics Over Time

Source: Xiaomi Technology Co.

Real-time monitoring extends beyond user behavior to encompass the performance and security of Xiaomi's digital ecosystem. Anomalies and potential vulnerabilities are detected promptly through automated monitoring systems, allowing Xiaomi to proactively address issues before they impact users.

Iterative Software Updates: Enhancing Functionality

Xiaomi's commitment to continuous improvement is evident in its approach to software updates. Regular and iterative updates not only address bugs and security concerns but also introduce new features and optimizations. Xiaomi's user base benefits from a dynamic and evolving software experience, ensuring that devices remain cutting-edge long after purchase.

Quality Control and Testing Protocols: Minimizing Defects

Quality control is integral to Xiaomi's commitment to excellence. Rigorous testing protocols are in place to identify and rectify defects before products reach consumers. Xiaomi's dedication to minimizing defects contributes to high customer satisfaction and reinforces its reputation for delivering reliable and durable products.

Learning from Setbacks: A Key Tenet of Improvement

In the tech industry, setbacks are inevitable, but Xiaomi views them as opportunities to learn and improve. Post-mortem analyses are conducted after any setback or product launch to glean insights for future enhancements. Xiaomi's resilience lies in its ability to turn challenges into stepping stones for growth.

Supply Chain Integration: Streamlining Operations

Continuous improvement is not confined to the development phase; it extends to Xiaomi's supply chain. Integration of data and feedback from the supply chain ensures that Xiaomi can optimize logistics, reduce lead times, and enhance overall operational efficiency.

Employee Training and Skill Enhancement: Nurturing a Competent Workforce

Xiaomi recognizes that its greatest asset is its workforce. Continuous improvement is not solely a technological endeavor; it involves fostering a culture of learning and skill enhancement among employees. Regular training programs ensure that Xiaomi's workforce stays abreast of the latest technologies and methodologies, aligning their skills with the company's evolving needs.

In conclusion, Xiaomi's commitment to continuous improvement and vigilant monitoring is not just a strategic choice; it's a way of life. By embedding agility, user-centric design, data-driven decision-making, and a culture of resilience, Xiaomi positions itself as a trailblazer in the tech industry. In the dynamic landscape of technology, where change is the only constant, Xiaomi's dedication to continuous improvement is the compass guiding its journey towards sustained excellence.

#### **CONCLUSIONS**

Xiaomi is globally renowned, and both traditional corporate giants and internet companies, as well as emerging enterprises, closely monitor Xiaomi as an industry focal point. Several studies have delved into Xiaomi's organizational management regime. Xiaomi employs a flat management structure and a horizontal organizational framework, fostering a flexible working environment. Let's interpret Xiaomi's management regime considering these aspects.

Xiaomi embraces a flat organizational structure with three main levels: the seven core founders, departmental managers, and employees. This is evident in Xiaomi's office layout, with distinct levels for products, marketing, equipment, and e-commerce, each overseen by a founder. They operate independently, playing roles within their respective domains. Furthermore, Xiaomi places significant emphasis on its employees as the cornerstone of the company's development, with teamwork being fundamental to its success.

Primarily, Xiaomi seeks to uncover exceptional talents that join the company, aligning with the characteristics defined by its founder, Lei Jun: focus, extremeness, speed, and reputation. Xiaomi's personnel management system ensures the swift expansion of the company's corporate portfolio. Xiaomi's efficiency management does not rely on Key Performance Indicators (KPIs); instead, it opts for a flat organizational structure, representing a structure with minimal or no levels of management between leaders and frontline employees. This approach provides a direct indicator reflecting individual work effectiveness.

Xiaomi emphasizes treating the company's business as one's own and taking on more responsibility at work. For instance, when an engineer finishes coding, they are expected to ask other engineers to review it. Regardless of how busy other engineers are, they must first review the code before proceeding with their own tasks. Engineers are required to take responsibility for delivering value to the user.

In the Chinese "Company Law," the equity structure of listed companies stipulates a fair ratio between shares and rights. This means that shareholder voting rights must be strictly adhered to, with one share equating to one vote. However, with

technological advancements, this popular single ownership structure cannot meet the development needs of companies. In recent years, due to constraints within the domestic equity capital system, some major internet companies in China have opted to list abroad to adopt a dual-class share structure.

Given Xiaomi's flat organizational structure, its shares can be divided into two parts: first, the share packages of group leaders, and second, the share packages of group employees. Public data based on Xiaomi shows that the company employs 14,513 people. Xiaomi's stock incentive plan covers over 5,500 employees, or approximately 37.89% of the total workforce. Xiaomi's equity capital, as a high-tech internet company, drives a policy that sparks enthusiasm among employees. This is because Xiaomi was established relatively recently, closely tied to the company's flexible compensation system. Xiaomi is set to grow alongside its employees, whose value realization is deeply embedded in the company's development.

#### REFERENCES

- 1. Balabanova L.V., Alacheva T.I. Information support for the justification of management decisions in terms of the marketing orientation of the enterprise:
- 2. Monograph. Donetsk: DonGUET named after M. Tugan-Baranovskyi, 2018. 143 p.
- 3. Boronenkova S.A. Economic analysis in enterprise management. M.: Finances and statistics, 2017. 224 p.
- 4. Vankovich D.V. Improvement of the management system of financial resources of industrial enterprises // Finance of Ukraine. 2016. No. 7. P. 44–50.
- 5. Godin V.V., Korneev I.K. Information support of management activities: Textbook. M.: Mastery; Higher school, 2017. 240 p.
- 6. Head S. Management accounting as a factor in improving the quality of corporate management // Tax planning. 2015. No. 5 (55). P. 41–50.
- 7. Encyclopedia of a businessman, economist, manager / Ed. R. Dyakiv. K.: 2021
  - 8. International Economic Foundation, 2019. 704p.
- 9. Kaplan Robert S., Norton David P. Balanced system of indicators. From strategy to action. 2nd ed., ed. and additional / Trans. from English M.: ZAO "OlympBusiness", 2016. 320p.
- 10. The concept of Business Performance Management: the beginning of the journey / E.Yu. Dukhonin, D.V. Isaev, E.L. Mostovoy and others; Under the editorship G.V. Gens. M.: Alpina Business Books, 2014. 269 p.
- 11. Polonska E. From the form to the database // Computer + Programs. 2016. no P.56–60.
- 12. Abernathy, W. J., & Clark, K. B. (1985). Innovation: Mapping the winds of creative destruction. Research policy, 14(1), 3-22.
- 13. Ács, Z. J., Szerb, L., & Autio, E. (2016). Global Entrepreneurship and Development Index 2015. Springer.
- 14. Adner, R. (2006). Match your innovation strategy to your innovation ecosystem. Harvard business review, 84(4), 98.

- 15. Adner, R. and Kapoor, R. (2016). Innovation ecosystems and the pace of substitution: Re-examining technology S-curves. Strategic Management Journal 37(4): 625-648.
- 16. Adner, R., & Kapoor, R. (2010). Value creation in innovation ecosystems: How the structure of technological interdependence affects firm performance in new technology generations. Strategic management journal, 31(3), 306-333.
- 17. Adner, R., & Levinthal, D. (2001). Demand heterogeneity and technology evolution: implications for product and process innovation. Management science, 47(5), 611-628.
- 18. Akdeniz Ar, A., & Kara, A. (2014). Emerging market consumers' country of production image, trust and quality perceptions of global brands made-in China. Journal of Product & Brand Management, 23(7), 491-503.
- 19. Alberti, F.G., Giusti, J.D. and Pizzurno, E., 2016. The role of institutions for collaboration in setting a competitive cluster ecosystem: the case of the French omega-3 cluster. International Journal of Competitiveness, 1(1), pp.4-32.
- 20. Ansari, S. S., Garud, R., & Kumaraswamy, A. (2016). The disruptor's dilemma: TiVo and the US television ecosystem. Strategic Management Journal, 37(9), 1829-1583
- 21. Baldwin, C. Y., & Clark, K. B. (2006). The architecture of participation: Does code architecture mitigate free riding in the open source development model?. Management Science, 52(7), 1116-1127.
- 22. Basole, R., Russel, M., Huhtamaki, J., Rubens, N., Still, K. & Park, H. (2015). Understanding Business Ecosystem Dynamics: A Data Driven Approach. ACM Transactions on Management Information Systems. 6 (2). 6 32.
- 23. Becker, M. C., & Zirpoli, F. (2008). Applying organizational routines in analyzing the behavior of organizations. Journal of Economic Behavior & Organization, 66(1), 128-148.
- 24. Brandenburger, A., & Nalebuff, B. (1996). Co-opetition: a revolutionary mindset that combines competition and cooperation in the marketplace: the game theory strategy that's changing the game of business. Edições Harper-Collins.

- 25. Breslin, D. (2011). Reviewing a Generalized Darwinist Approach to Studying Socio-economic Change. International Journal of Management Reviews, 13(2), 218-235. Bresman, H. (2013).
- 26. Changing routines: A process model of vicarious group learning in pharmaceutical R&D. Academy of Management Journal, 56(1), 35-61.
- 27. Bruns, H.C., 2013. Working alone together: Coordination in collaboration across domains of expertise. Academy of Management journal, 56(1), pp.62-83.
- 28. Brusoni, S., & Prencipe, A. (2006). Making design rules: A multidomain perspective. Organization science, 17(2), 179-189.
- 29. Charitou, C. D., & Markides, C. C. (2003). Responses to disruptive strategic innovation. MIT Sloan Management Review, 44(2), 55-64.
- 30. Management information: its types and properties. URL: https://stud.com.ua/50365/menedzhment/upravlinska\_informatsiya\_vidi\_vlastivost i (date of application: 05/07/2022) Issue 16. 2017. P. 418-421
- 31. Zhang Zengxiang Administrative management of information support of the enterprise *XII Міжнародної науково-практичної конференції «Економіка підприємства: сучасні проблеми теорії та практики»* (08-09 вересня 2023 р.). Одеса, 2023. С.379-380
- 32. Zhang Zengxiang A modern approach to the use of administrative management of information provision of the enterprise *Стратегічні пріоритети* розвитку бухгалтерського обліку, аудиту та в умовах глобалізації: матеріали ІІ Міжнародної науково-практичної конференції (м. Суми, 16 листопада 2023 р.) / за ред. проф. Назаренка О.В. Суми: СНАУ, 2023. С. 287-290.

# Appendix